# FOOD PREFERENCES OF STUDENTS EATING IN THE 

 DINING HALL AT LANGSTON UNIVERSITYBy<br>GIENDA LOU WARREN<br>"<br>Bachelor of Science<br>Langston University<br>Langston, Oklahoma<br>1962

Submitted to the Faculty of the Graduate College of the Oklahoma State University
in partial fulfillment of the requirements
for the Degree of
MASTER OF SCIENCE
May, 1971


FOOD PREFERENCES OF STUDENTS EATING IN THE DINING HALL AT LANGSTON UNIVERSITY

Thesis Approved:


## 788816

## ACKNOWLEDGEMENTS

The author wishes to express her sincere gratitude to her adviser, Dr. Helen F. Barbour, for her guidance and interest and for her generous donation of time far "beyond the call of duty." A special note of appreciation is extended to Dr. P. Larry Claypool and Dr. Donald E. Allen who gave invaluable help in designing the research tool and analyzing the data. Gratitude is extended to Dr. Elaine Jorgenson who served on the author's committee along with Dr . Allen and Dr. Barbour

Deep appreciation is extended to Dr. Lela O'Toole, Dean of the Division of Home Economics at Oklahoma State University, for the graduate teaching assistantship and Development Foundation Scholarship which provided the primary financial support essential for the completion of this study.

The author wishes to express momentous appreciation and thanks to the administration, faculty, staff and students of Langston University without whom this study would not have been possible; Dr. William H. Hale, former President of Langston University, who granted the leave of absence; Dr. William E. Sims, President of Langston University, who gave his permission and encouragement for the study; Mrs. Zella Patterson, Chairman of the Department of Home Economics, who recommended the author for financial assistance for the study from Langston University; Dr. Walter L. Jones, Dean of Academic Affairs, who secured co-operation from the faculty; the Faculty of Langston University, who allowed
and assisted the author to administer the tool in their classrooms; Mr. Jodie Hilliard, who permitted the author to use the menus for compiling the preference list; Mr . Melvin McClellan, who donated his time to duplicate the research tool; the wonderful students of Langston University who were the subjects for the study.

Gratitude is also extended to all those persons at the Oklahoma State University Computer Center for the many services rendered; principally to Mrs. Iris McPherson, Mr. William Accola, and Miss Dena Meenen.

The author is deeply indebted to the typists, Mrs. Carol Bolles and Mrs. Ann Smith. The completion of this study would not have been possible without their assistance.

The author extends a huge "thank you" to the faculty and staff of the Food, Nutrition and Institution Administration Department who gave much time and consideration for the completion of this research.

Thanks are also expressed to the students from the FNIA 2243 class. The time these students contributed to allow the author to pre-test the research tool had much to do with the development of the questionnaire.

Tremendous indebtedness is expressed to Miss Ann Carrado, faculty member at Langston University, who spent hours helping the author to compile and edit the numerous tables.

The author also gratefully acknowledges Carol Anderson, Juanita Goff, Mildred Hill, Gloria Prewitt, and Rosetta Williams, who repeatedly gave so generously of their time and support to assemble and check the questionnaires.

Special gratitude is reserved for my relatives, especially my
parents, Juanita and Joe D. Warren; my brothers, Joe, Kenneth and Ronald; and my sister, Regina. They have given spiritual and financial encouragement throughout the pursuit of ny degree.

## TABLE OF CONTENTS

Chapter Page
I. INTRODUCTION ..... 1
Purpose of the Study ..... 3
Hypotheses ..... 4
Assumptions ..... 4
Definitions ..... 5
II. REVIEW OF THE LITERATURE ..... 7
Some Factors Influencing Food Preferences ..... 7
Comparison of Food Likes of Different Age Groups ..... 8
Using Preference to Predict Consumption ..... 11
, Measuring Food Preferences ..... 15
Evaluation of Diets and Survey Methods of Dietary Intake ..... 19
The Need for Nutrition Education ..... 23
$\checkmark$ How to Develop a Questionnaire ..... 27
III. METHOD AND PROCEDURE ..... 29
Determination of the Problem and Selection of the Population ..... 29
Development of the Research Instrument ..... 30
Administration of the Questionnaire ..... 32
Analysis of the Data ..... 33
IVV. RESULTS AND DISCUSSION ..... 35
Food Likes and Dislikes of the
Male and Female Subjects ..... 35
Food Likes and Dislikes of Subjects ..... 45According to Place of Residence
Food Likes and Dislikes of SubjectsAccording to Extent of Travel . . . . . . . . . . . 50Food Likes and Dislikes of SubjectsAccording to Age . . . . . . . . . . . . . . 55
Food Likes and Dislikes According toLevel of Income of Subjects . . . . . . . . . . . . 55Food Likes and Dislikes of Subjects
According to Education of Their Parents ..... 66
Food Likes and Dislikes of the Subjects According to College Classification ..... 77
Chapter Page
Food Likes and Dislikes of Subjects
According to Whether They Selected Foods
Daily From All Four Food Groups . . . . . . . . . . 82
Some Other Factors Which May Influence theLikes and Dislikes of the Subjects . . . . . . . 87
V. SUMMARY AND CONCLUSIONS ..... 94
Recommendations ..... 96
A SELECTED BIBLIOGRAPHY ..... 98
APPENDIX A - CORRESPONDENCE ..... 104
APPENDIX B - QUESTIONNAIRE ..... 106
APPENDIX C - RAW DATA PUNCH CARDS ..... 121
APPENDIX D - DISTRIBUTION OF THE POPULATION ..... 124

## LIST OF TABLES

Table Page

1. Food disliked by the male population ..... 36
2. Food disliked by the female population ..... 41
3. Food likes and dislikes of subjects according to place of residence ..... 46
4. Food likes and dislikes of subjects according to extent of travel ..... 51
5. Food likes and dislikes of subjects according to age ..... 56
6. Food likes and dislikes according to level of income of subjects ..... 60
7. Food likes and dislikes of subjects according to education of father or male guardian ..... 67
8. Food likes and dislikes of subjects according to education of mother or female guardian ..... 72
9. Food likes and dislikes of subjects according to college classification ..... 78
10. Food likes and dislikes of subjects according to whether they selected food daily from all four food groups ..... 83
11. Degree of satisfaction of students with their dining hall ..... 88
12. Frequency with which subjects missed meals ..... 89
13. Reasons subjects missed meals ..... 90
14. Frequency of eating between meals ..... 92
15. Reasons subjects ate between meals ..... 92

## CHAPTER I

## INTRODUCTION

National attention is beginning to be more strongly focused upon the nutritional status of the American citizen than in the past. How to alleviate malnutrition in the United States is of vital importance as evidenced through the Household Food Consumption Survey of 1965-66 (1), the Nutrition Education Conference of 1967 (31), the recently televised film, Hunger in America (12), the National Nutrition Survey of 1969 ( 65,66 ), and the White House Conference on Nutrition in 1969 (10, 51, 53).

These focuses on nutrition have revealed that the majority of malnourished Americans have the following characteristics: low-income, little or no education, and minority group status. In one of the studies, " $55 \%$ of the sample examined was Negro" ( 66, p. 4).

Some of the efforts of the United States to feed the poor have been through use of food stamp programs and the United States Department of Agriculture's surplus commodity foods. Often the foods'rare rejected by the people receiving them.

A second problem, which has received less national attention but is nonetheless urgent, is related to rejection of institutionally prepared food by such groups as college students. If more preference tests were administered to these groups, some food consumption predictions could be made, and the problem of rejected food might be
lessened (61).
The nutritionist must necessarily be concerned with the food preferences of any group, especially one with which he is intimately associated. In considering the problem of rejected food items, insight can be gained about stronger problems which may be the direct cause of the rejection. Through studies of his group, the researcher should be able to make recommendations to the institution for nutrition education and to the food service director. Any corrective steps which the food service director may make can bring about improvements in the nutritional status of people eating in the college food service area. Furthermore, the group for which the improvements are made may serve as a potent vehicle of informed consumers into the national mainstream. The impact that they may make, thus enlarges the nutritionist's efforts in the national program of alleviating malnutrition in America.

The particular group with which this study is concerned is composed of students of Langston University. The author, an instructor and also an alumna of Langston University is particularly sensitive to the signs of dissatisfaction expressed by the students. She has heard the complaints from many students about their dislike for the food. In addition, she has witnessed at least two "strikes" staged by the group which further indicated their dissatisfaction with the food service.

Langston University, since its inception in 1897, has had a predominantly black (Negro) population. The school's philosophy boasts that it is a "greenhouse" to meet the needs of the economically, socially, and culturally deprived youth of the state of Oklahoma. Implications are that the majority of the students are from less
economically advantaged homes.
The college is the heart of the community of Langston, Oklahoma. Except for four small cafes, the students have no choice of eating places other than the Langston University Cafeteria. Meals are served three times daily except on Sunday when only two meals are served and a snack of a sandwich and a fruit is provided for Sunday evening. Meal tickets are purchased on a contract basis at the beginning of each semester. In such a restricted situation, preferences need to be given very careful consideration.

Purpose of the Study

The primary purpose of this study is to determine the major food preferences of the students eating in the dining hall of Langston University.

Secondary purposes include:

1. Implications of the study for developing better utilization of the existing food service facilities at Langston University.
a. Use preference as a predictor of consumption to help lessen food waste.
b. Try to prevent missing of meals by giving consideration to reasons why meals are missed.
2. Implications of the study for broadening nutrition education at Langston University.
a. Include the introduction of new or untried foods.
b. Evaluate how well basic nutrition principles are applied by the students eating in the dining hall.
3. Contribution of the study to the national effort of alleviating malnutrition in the United States.
a. Encourage service and use of new and untried foods in an effort to develop familiarity and acceptance of a wide variety of items.
b. Develop judgment in purchasing foods which are high in nutritive value and reasonable in price.

Hypotheses

The following set of hypotheses has been compiled as the bases for this study.

1. There is no difference between the food preferences of:
a. female students and male students.
b. studersts of rural origin and students of urban origin.
c. students who have traveled extensively and students who have not.
d. students of the different age levels.
e. the students from different income levels.
f. students whose parents have a high educational background and students whose parents do not.
g. freshman, sophomore ${ }_{9}$ junior and senior students.
h. students who are satisfied with the dining hall and those who are not.
i. students who snack between meals and those who do not.

Jo students who eat the recommended number of servings per day as given in the Basic Four Food Groups and those who do not.

Assumptions

The assumptions basic to this study are as follows:

1. Subjects can be obtained who are in all four levels of classification.
2. Subjects can be obtained who are both male and female students.
3. The majority of the subjects are natives of Oklahoma.
4. The menus served in the Langston University dining hall are well-balanced nutritionally.
5. High quality food is purchased for the meals prepared in the Langston University dining hall.
6. Meals which are skipped at Langston University are skipped for legitimate reasons.
7. The students know the gross annual income of their families.
8. The students know the educational level completed by each parent or guardian.
9. The students determination of the size of food servings is adequate.

## Definitions

In order for the reader to be cognizant of the author's use and acceptance of some terms essential to the identity of this study, definitions are given as follows:

Food preferences as defined by Martin (50, p. 7):
They indicate attitudes toward main groupings of food and toward specific foods-othose widely accepted and those rather universally rejected.

Food attitudes as defined by Pilgrim (61, p. 439):
Attitudes are expressions of opinion or affective reactions that are usually obtained by questionnaires about foods. They may be based on reactions to particular samples of foods, or as in much of our work, they may be generalized attitudes in response to a food name and represent many experiences with that food.

Food habits, as defined by the Committee on Food Habits, (15, p. 13), are:
...the way in which individuals or groups of individuals, in response to social and cultural pressures, select, consume, and utilize portions of the available food supply.

Food acceptance as defined by Eppright, Pattison and Barbour
(19, p. 19):
Food acceptance involves appetite and preferences as well as hunger and the need for sustenance. It is conconcerned with attitudes toward food and eating, including the emotional, cultural, and traditional factors which influence choice of food.

## Some Factors Influencing Food Preferences

The preferences of students, servicemen, and other groups who eat in institutional feeding programs have been investigated in many studies (17, 25, 27, 39, 41, 46, 61, 67, 83). Generally, the preferences have been studied as an aspect of food attitudes which belong to the larger class of the factors which influence food habits.

These authors ( $18,19,24,37,57,63,72,73$ ) agree that the factors which influence individual food preferences may be sociological, psychological and/or physiological in nature. Some of these influencing factors are cultural, social, and economic backgrounds; family food preferences; age; sex; place of residence; and pleasant and unpleasant experiences.

Age

Eppright (18) summarized the views of several authors regarding the influence of age on food preferences. She reported that the influence of age on food acceptability has been associated with physiological changes in the taste buds.

Martin (50) listed some of the general food preferences that are characteristic of different age groups. Younger children find strong flavored foods to be less acceptable. Older persons are less con-
cerned with flavor of the food than are younger persons. Middle-aged persons are more concerned with the health aspects of food than are the boys and girls.

A compilation was developed after Eppright, Pattison and Barbour (19, p. 79) in which a comparison of food likes of different age groups is given.

> Comparison of Food Likes of Different Age Groups

| Investigator(s) | Date of Study | Age of Subjects | Some Foods With Largest Percentage Described as Liked |
| :---: | :---: | :---: | :---: |
| Lamb, Adams, and Godfrey (41) | 1954 | College Women | Fried Steak <br> Whole Milk <br> Apples <br> Oranges <br> Cookies <br> Biscuits |
| Schuck (67) | 1961 | College Students | Milk <br> Butter <br> Strawberries <br> Apples <br> Peaches <br> Pears <br> Grapes <br> Corn <br> Beef <br> Fowl |
| Litman, Cooney, and Stief (43) | 1964 | $\begin{aligned} & 10-22 \text { * } \\ & \text { Years } \end{aligned}$ | Milk <br> Potatoes <br> Bread <br> Meat <br> Butter <br> Eggs |
| McCune (47) | 1966 | Pediatric <br> Patients | ```Orange Sections; Juice Grapefruit Sections; Juice Bananas (sliced on cereal) Pineapple Juice``` |

Comparison of Food Likes of Different Age Groups (Continued)

| Investigator(s) | Date of Study | Age of Subjects | Some Foods With Largest Percentage Described as Liked |
| :---: | :---: | :---: | :---: |
|  |  |  | Grape Juice <br> Apple Juice <br> Hard Cooked Egg <br> Jelly (with all broad items) <br> Many Dry Cereals |
| McCune (47) | 1966 | $\begin{aligned} & \text { Adult } \\ & \text { Patients } \end{aligned}$ | Orange Juice <br> Peaches <br> Potatoes <br> Roast Beef <br> Fried Chicken |
| Knickrehm, Cotner, and Kendrix (39) | 1969 | College Students | Roast Beef <br> Broiled Steak <br> Hamburger on Bun <br> Mashed and Baked <br> Potatoes <br> Whole Kernel Corn Apples <br> Fresh Fruit Salad <br> Tossed Green Salad <br> Ice Cream <br> Fruit Pies |

* The subjects in this study were tested to ascertain how they viewed foods and to determine what factors might be associated with their attitudes toward food. Personal preference and taste ranked second only to health-related reasons as one of the factors associated with their attitudes toward food.

Potatoes and corn are the only vegetables which received a high percentage of preference scores. Three of the six age groups listed did not rank milk highly. Only two of the groups included eggs among their highly-preferred class of foods. All groups, except Litman's (43), had a high preference for fruit.

In 1939 Hall and Hall (27) investigated the likes and dislikes of 693 students enrolled in three universities. They noted significant sex differences in food aversions for seventeen items. They concluded that women have more food aversions than men, but women are familiar with more foods than men.

Blewett and Schuck (8) in 1950 found that the men in their study had better diets than the women. A higher percentage of men than women consumed breakfast, and the men had a smaller number of de. ficiencies in their diets as a whole.

Pilgrim (61) in 1960 announced that the method of preparation influences the preferences of army males. According to him (61, p. 441), "it seems to be characteristic, at least of the American male, to like his foods plain and simple."

In 1961 Schuck (67) found some differences in the food likes and dislikes of men and women college students. A higher percentage of men than women were willing to eat vegetables and meats often, but women were willing to eat fruits more of ten than men.

In 1969 Knickrehm, Cotner, and Kendrix (39) studied the preferences for menu items of students at the University of Nebraska. They related no significant differences in the frequency with which students would accept menu items because of difference in sex.

## Income

Hill (29) and Clark (14) strongly emphasized the influence of income as a principle factor which affects the assortment of foods a person will eat. Other sources report otherwise, however, the princi-
pal difference appears to be severe income deprivation versus mild income limitations. For example, Hodges and Krehl (33) surveyed the nutritional status of teenagers in Iowa. In this study there were few, if any, children from impoverished families. Their data suggested that high school students have dietary habits which do not necessarily reflect the economic status of their families. This group commonly practices dietary faddism and restricts their food intake to a relatively small number of familiar and favorite items.

As Brown's (ll) students traced the development of their food habits, they indicated that income did not play an absolute determining role. One-half of the students felt that their families were on a limited budget, but they did consume a varied diet. These same students also said that introduction to fancy, foreign and perhaps more expensive foods had been rather limited.

## Place of Residence

Adelson (1), Clark (14), and Schaefer (66), intimated that there are still ruralaurban influences on food preferences, but these differences are becoming less pronounced. Brown (ll) concluded that the main influence of place of residence can be seen in the effect that farm life had on family eating habits. Her data indicated that farmreared youth have larger appetites; that form life can restrict the variety of foods served; and that meals prepared had to be planned to fit into the farm routine of the seasons. Using Preference to Predict Consumption

Pilgrim (61), in summarizing conclusions of other investigators,
stated that food consumption is predictable, and it has been shown that one of the important predicators is food preference. Eindhoven and Peryam (17, p. 379) substantiated this viewpoint by stating: "One of the best ways of predicting whether people will eat a food, or how much of it they will eat, is to ask them how well they like it."

Menus which have been painstakingly prepared may not be well accepted unless the preferences of the group have been given careful consideration. Without this consideration unaccepted foods may result in too much waste and great dissatisfaction. This problem inspired McCune $(46,47)$ to analyze the food preferences of adult and pediatric patients and of hospital personnel. She (46, p. 70) established the following objectives for the study: "l. To increase patient satisfaction, 2. to decrease the number of items prepared, and 3. to reduce waste."

Data were collected through a questionnaire which was distributed to each patient by the dietitian. The dietitian explained to the patients how to complete the questionnaire and how it would be returned. The questionnaire contained 200 items including all types of food generally served.

After compiling the results, McCune (47) was able to determine four categories of food: those to be used daily, twice a week, once a week, and never. A special committee, which included the dietitians, used the results to rewrite the menus. The dietitian reported that the following compromise was effective in obtaining the objectives of the survey (47, p. 324):
(a) In the area of patient food service, the dietitian has agreed to limit the variety of food to items the patient indicates are acceptable; on the other hand, she has asked him to accept these foods prepared in the manner recommended by scientific study and research.
(b) In the area of personnel feeding, the dietitian has begun her menu at the consumer's own level by offering only the items he has indicated as acceptable. But, she does not stop there. By various methods of education, she tries to broaden the acceptance of a variety of foods and to raise the standard of quality food to what she has learned.

Schutz (68, p. 412) obtained food preference ratings on two occasions -- from 91 men at a military installation. A nine-point rating scale for 54 foods was used. "The subjects were on an ad libitum eating schedule for one month during which the amount of each food taken and eaten by each subject was recorded."

When correlations were computed between the mean preference ratings and two measures of food behavior, the correlations obtained were all significant (. 51 to .77) . The data indicated that up to 59 per cent of the variance in food behavior can be accounted for by preference ratings. "Acceptance at the serving line" and "actual consumption" were the two measures of food behavior correlated with the mean preference ratings (68).

On campuses, as much attention needs to be given food preferences as in other institutional feeding programs. In 1969, Knickrehm and co-workers (39) reported on the acceptance of menu items by University of Nebraska students. They found that there were relatively few menu items that students wanted to eat twice a day, every day or twice a week. Less than 30 per cent of the students would like fresh fruit, fruit juice, fruit combinations or tossed green salad twice a day. Fifty per cent of the students would accept these four items daily.

They (39, p. 120) also found that vegetables present the greatest problem in menu planning; "Only nine vegetables were acceptable to at least 25 per cent of the students as frequently as twice a week." The
problem was planning selective menus without exceeding the desired frequency ratings for vegetables.
"Observation" has also been used to determine preference and in turn predict consumption. At Bishop College in Dallas, Texas, Mrs. Gloria Johnson, the head dietitian, has been quoted as follows: (70, p. 43):

We do a lot of observing and analyzing. If we notice food is left on plates and not eaten, then we automatically cut that particular item realizing it is not acceptable. We cannot take food requests from students as we're too big an operation, but we do notice what is eaten and what is left on plates.

Bailey (4), at Washington State University, developed a questionnaire to obtain student opinion on food service. Multiple choice charts were purposely omitted to encourage free expression from the students; a blank page was also included in the tool for suggestions for improving food or dining hall operations. The food service director read every comment from over two thousand questionnaires. Results were published and made available for student reference. Washington State University was able to improve their food service program by using this method of determining food preferences to predict what foods students would or would not consume.

Dickens, Fanelli and Ferguson (16) observed attractiveness in menu items on the basis of two types of motivation operating in the selection of menus: the number of "liked" dishes in a menu and the "magnetism", or "pulling power" of a specific menu item. They found that certain items do increase or decrease the attractiveness of the menu. Their findings suggest another technique for studying preferences; such knowledge may serve as a basis for menu planning.

## Measuring Food Preferences

Hedonic is defined as "relating to, or characterized by pleasure." This basic concept has been employed to develop an instrument for the measurement of food preferences. It has had widespread use in food research $(17,26,38,58,59,80)$. Experience has shown that the rating scale method or more completely, the method of successive intervals, is the most appropriate and efficient for defining food preferences.

In 1952 Peryam and Girardot (58) summarized some of the advantages of the hedonic scale method. They reported that the method was evaluated for several years at the Quartermaster Food and Container Institute. It was first used at the Institute as a method of predicting soldiers' food choices. They foresee the hedonic scale method as the technique for the attainment of reliability in consumer-preference evaluations.

The scale is flexible enough to be used for laboratory consumer preference evaluations and to measure general attitudes toward foods. The form used is the same in two respects: (I) phrases which describe the scale points do not change; (2) they are always placed so their continuity will be seen.

What do the scores mean? From hundreds of tests on over 100 different items (58), the Institute found the following meanings:

1. Mean ratings below 5.0 generally represent poor quality or strange foods.
2. Mean ratings over 7.5 represent good quality samples of highly popular foods.

If sampling of observers is appropriate and tests are properly run, the hedonic scale method may serve a fourfold purpose: (1) to
detect small differences in the direct response to similar foods; (2) to detect gross differences in the direct response to foods; (3) to reveal differences in group preference attitudes; (4) to make general predictions about the acceptance level of any food (58).

In 1933, Wood and Peryam (80), analyzed a nationwide army food preference survey which involved use of the hedonic scale. They used a nine-point scale. The full length of the page was used for the scale, with "like extremely" on the left and "dislike extremely" on the right.

Preliminary tests revealed that respondent fatigue or boredom affected results when more than sixty food items were rated as part of a single questionnaire. Their final questionnaire was limited to fifty-four food items. It was also designed to obtain the age, education, length of service in the United States and overseas and the location and size of their home community.

In 1955, Jones, Peryam and Thurstone (38), reported on efforts made at the Quartermaster Institute to refine the hedonic scale. Their objective was to determine the optimum width, position and number of intervals. In addition, they tried to determine the best descriptive phrases to include on the scale.

These authors were not able to determine the exact specifications for a superior scale. They (38, p. 520) did develop some conclusions believed to be most pertinent to the food technologist as follows:
a. Descriptive phases may differ greatly in ambiguity.
b. They differ also in the level of preference implied, and this cannot always be predicted on a priori basis.
c. Increasing the length of a scale, up to nine intervals is related to only a negligible increase in the time required for completion.
d. Test-retest reliability, within the range of five to nine intervals is relatively invariant.
e. Longer scales, up to nine intervals, tend to be more sensitive to differences among foods.
f. Elimination of the "neutral" category seems to be beneficial.
g. Balance, i.e., an equal number of positive and negative intervals, is not an essential feature of a rating scale.

In 1957, Peryam and Pilgrim (59), discussed the advantages and limitations of the hedonic scale method. Simplicity is the essence of the scale. The way in which the scale or scales are presented on the questionnaire does not appear to be critical. It may have long or short lines, vertical or horizontal orientation, and it may begin with either like or dislike.

An example of the scale used by Peryam and Pilgrim (59), is presented on the following page. This form is adapted in questionnaire studies of food preferences and attitudes.

The number of scale categories may be changed without changing the basic function of the instrument. They must, however, clearly indicate the affective continuum and encourage its use. The wording of the scale used by Peryam and Pilgrim (59) is regarded as adequate with two exceptions: dislike moderately elicits ambiguous responses; neither like nor dislike has no specific advantage. Balancing is not an essential feature of the scale; it does not need an equal number of like and dislike categories.

In 1959 Eindhoven and Peryam (17) used the hedonic scale to measure preference for food combinations. One of the objectives of the study was to determine the optimum form length. The comparison was based on forms containing 50 and 100 items respectively. The form

Example of the hedonic scale form used in questionnaire surveys (59).

|  |  |  | Like | Like |  | Neither |  | Dislike | Dislike |  |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Not |  | Like | Very | Moder- | Like | Like Nor | Dislike | Moder- | Very | Dislike |
| Tried | Milk | Extremely | Much | ately | Slightly | Dislike | Slightly | ately | Much | Extremely |


|  |  |  | Like | Like |  |  | Neither |  | Dislike | Dislike |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Not |  | Like | Very | Moder- | Like | Like Nor | Dislike | Moder- | Very | Dislike |
| Tried | Steak | Extremely | Much | ately | Slightly | Dislike | Slightly | ately | Much | Extremely |


|  |  |  | Like | Like |  | Neither |  | Dislike | Dislike |  |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Not |  | Like | Very | Moder- | Like | Like Nor | Dislike | Moder- | Very | Dislike |
| Tried | Corn | Extremely | Much | ately | Slightly | Dislike | Slightly | ately | Much | Extremely |


|  |  |  | Like | Like |  | Neither |  | Dislike | Dislike |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Not |  | Like | Very | Moder- | Like | Like Nor | Dislike | Moder- | Very | Dislike |
| Tried | Bread | Extremely | Much | ately | Slightly | Dislike | Slightly | ately | Much | Extremely |


|  |  |  | Like | Like |  | Neither |  | Dislike | Dislike |  |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Not |  | Like | Very | Moder- | Like | Like Nor | Dislike | Moder- | Very | Dislike |
| Tried | Orange | Extremely | Much | ately | Slightly | Dislike | Slightly | ately | Much | Extremely |

length was analyzed statistically and a small sample of respondents were interviewed about the questionnaire. They concluded that as many as 100 food combinations may be included on a questionnaire. Their population had a high educational level which may account for the acceptability of the longer form.

Evaluation of Diets and Survey Methods of Dietary Intake

## Evazuation of Diets

In 1968 the Food and Nutrition Board (22) of the National Academy of Sciences published a revised edition of Recommended Dietary Allowances. The compilation can be used to interpret food consumption records. The interpretor must keep in consideration these restrictions involving the use of the allowances: They are to serve only as a reference; food consumption survey data alone does not measure nutritional adequacy. Recommended dietary allowances are designed to allow a margin of safety for individual variations; diets should not be judged as "poor" on a peremptory figure based on comparison with these allowances.

For very general evaluations of dietary intake, food consumption records can be compared to the rules set forth in the daily food guide as compiled by the United States Department of Agriculture (79). A basic diet, selected in accordance with the rules of the daily food guide, should provide an adequate intake of essential nutrients. The guide is divided into four main groups according to the nutrients they supply most abundantly. Bogert, Briggs, and Calloway (9) have listed the main contributions from each group:

Grain products - Carbohydrates, proteins, B vitamins and iron.
Meat group - Protein, iron and other minerals, and $B$ vitamins.
Milk group - Protein, calcium and other minerals, and vitamins.
Vegetable-Fruit Group - Minerals, vitamins and fiber.
Leafy, green and yellow vegetables - Iron and Vitamin A.
Citrus fruits, tomatoes, raw cabbage, and such - Vitamin C.
If groups or individuals are not consuming the number and variety of servings recommended for each group, generalizations can be implied regarding the adequacy or inadequacy of their diets. Chang (13) found this method to be helpful for evaluating the dietary adequacy of students at Illinois State University.

## Survey Methods of Dietary Intake

In 1942, Huenemann and Turner (36), conducted a study at the Walter G. Zoller Memorial Dental Clinic. They listed the questions which prompted the study as presented here (36, p. 562):

1. Would a diet history obtained by interview only have significance in regard to the quality and the quantity of the present diet? How would it compare with a food record?
2. Would food habits change from time to time and thus necessitate repeated dietary investigation?

Clinic patients, aged 6 to 16 years were chosen as subjects. In order to solicit and maintain their cooperation, dental treatment was provided in return for their help. The subject and usually his mother were interviewed at the outset of the study. Following the interview, each subject and/or his mother kept dietary records for a period of 10 to 14 days. Each subject was also asked to weigh and again record his food intake for the same period of time, once every three or four
months. The researchers used the data from fasting plasma ascorbic acid determinations as an objective test of the reliability of the food intake record.

Discrepancies were found between calculations from the diet histories and the diet records. The chief reason seemed to be that ients actually did not know what or how much they ate. When ive diet records were compared, some subjects differed sig:ly while others were remarkably constant. These results the investigators to conclude that dietary investigation ; a long period of time is essential for reliable information. 952 Young, et al. (81) compared three types of dietary study dietary history, seven-day record, and 24-hour recall. Data .. $-\infty$ ootained using three different types of population groups to increase the meaning of results. The study was also designed to compare the different methods for estimating nutrient intake of an individual and of a group. For an individual, the 24 -hour recall did not give the same estimate of dietary history as either of the two other methods. For the mean of a group the dietary history gave decidedly higher values for two of the groups. The history and 24-hour recall gave better results for the third group. Also, for the mean of a group, the 24 -hour recall and the seven-day record had approximately the same estimates. Under some circumstances, the 24 -hour recall can be substituted for the seven-day record in group intake estimations.

In 1959 Trulson and McCann (75), reviewed four methods which have been used for dietary surveys: (1) the individually kept dietary record; (2) the weighed diet; (3) the questionnaire; and (4) the interview. Each method has inherent limitations.

Use of the dietary record is limited to people who are literate and extremely co-operative. Another weakness of this method is that it may show food consumption for one week only and not a characteristic pattern.

The questionnaire method of dietary survey is designed to provide information of the usual food intake for a month. Information is insufficient for a complete evaluation of the technique, however, some tentative conclusions may be drawn. It is probable that this method might prove too difficult and time-consuming for less experienced persons. If it were repeated, it would need to be rearranged and reworded so that the subjects' memory of the first test would not influence their choices.

Dietary interviews are designed to estimate long-range food practices. Information obtained is used to obtain the characteristic food intake of individuals. Users of this method should employ this principle caution: the accuracy of the instrument needs constant assessment.

Trulson and McCann considered one of the present dietary survey methods to be superior. They (75, p. 673) stated: "The weighing of food is, of course, the most accurate way of learning about food consumption." It also has limitations. Individual food intake may change when the food has to be weighed. Furthermore, the length of time food should be weighed appears undecided.

Trulson (76), in 1962, reported on the panel discussion: Appraisal of Food Intake, which she moderated. During the panel presentation, advantages and disadvantages of various survey methods were discussed. The session speakers generally seemed to favor the method which
entails weighing of food. One member ventured to summarize the panel's viewpoint as follows (76, p. 367):

We can never find a method of measuring a person's eating which will show an exact intake for any long time, because people do not eat alike year after year. We must use the food table intelligently and must realize its limitations and advantages. We must try to find new survey methods which will give us not only the nutrient content of food but also the usage of food, i.e., frequency of eating, amounts and way of preparing food, and time of eating.

In 1969 Beal (5) described the present dietary study methods as being critically limited. Studies from the intake of groups are too general to aid significantly in the search for the incidence of malnutrition. Valid correlations between different tests of nutritional status cannot be obtained without dietary data which reflects intake over a long enough period of time. To be more effective techniques must be developed by which the intake of individuals can be evaluated. Both the dietary history method and the 24 -hour recall method are inadequate mainly due to the limitations of time, expense and general information they present. In Beal's estimation, dietary histories have the highest potential for becoming the reliable method. She stated ( $5, \mathrm{p} .4$ )..."the most accurate data would result from an extensive history taken by a nutritionist experienced in the techniques of interviewing."

The Need for Nutrition Education

A college education should include nutrition education so that the students will be able to enhance their health by applying concepts of good diet.

When Adelson (1) reviewed the findings from the 1965 survey of household food consumption in the United States, she could see an
immediate need for more intense nutrition education programs for
Americans in all walks of life. In many cases, specially designed programs need to be structured in nutrition education.

Hill (31, p. 1) reported on the challenge to nutrition education as presented by Dr. Mehren at the 1967 Nutrition Education Conference: "In a country that has the best, more abundant, most varied, and cheapest supply of food in the world, you would think that everyone would be well or adequately nourished." Even though poverty is the great hazard to national nutritional health, poor food choices contribute to malnutrition. These poor food choices which are made by all groups of our country are the result of ignorance, misinformation and lack of appreciation for the relationship of good food to health and well-being.

The classroom situation should supply one of the best means for providing the knowledge to guide each person in choosing the foods essential for his health and well-being. Lamb (40) expressed deep concern for the viciousness of the circumstances which have not recognized the need for nutrition education. Some still eat poorly, but this country is often called "the land of plenty." Twelve years of free public schooling are provided, but significant numbers of students fail to learn to apply concepts of diet which determine their health, and later on the health of their children.

According to many authors (10, 14, 19, $21,30,40,53,56,65$ ), the goal should be nutrition education for every child. When the public and educators accept nutrition education as being as basic a part of total education as language arts and mathematics, the goal can be reached.

When Brown (11) summarized the reasons her students gave as the basis for their food habits, supportive evidence for nutrition education was given." Some of her students felt that the influence of the school, through home economics classes or clubs, helped them to strengthen good food habits.

In the 1967 Nutrition Education Conference (30) nutrition education in schools was identified as a major problem area for which solutions need to be found if effective nutrition education can take place. Hill (30, p. 1) listed the concern of the participants for nutrition education:
A. Initiating, developing, and evaluating sequential nutrition programs in elementary and secondary schools.
B. Using school lunch as a teaching tool.
C. Including nutrition in the undergraduate training of school teachers, particularly elementary school teachers.

The role of the college in nutrition education need not be confined to formalized classroom situations. Dining hall operations and atmosphere should develop positive attitudes toward food, advance the goal of good nutrition and contribute to intellectual development (7). Many approaches may be taken to promote the atmosphere. Lamb, Adams, and Godfrey (41, p. 1124) emphasized the importance of a study of food preferences of college students in planning and serving meals in college dormitories. They say: "Consideration of food preferences can lead to greater food acceptance and adequate food consumption."

McCune emphasized the dietitian's responsibility to teach staff and employees to try and like things they have never tried before; the same may also be true in college dining halls. She (46, p. 74) found
the following means to be the biggest help in getting customers to try "a new dish:"

When a new food is offered for the first time, a linencovered table is set up in the dining room near the traffic aisle and each customer is invited to "taste" the food and record their reaction to it on a card. They are asked: Does it taste good? Does it look good? What would you like to have it served with?

Mayer (51) reported that nutrition education was considered an essential part of all special programs during the 1969 White House Conference on Food, Nutrition and Health. Justifiably, the panel on teaching and nutrition education was concerned that every American should have access to knowledge of nutrition as well as the purchasing power to secure food to meet his nutritional requirements.

Briggs (10) and Mayer (53) have reported some highlights of the phel recommendations for nutrition education. In general, the recommendations are as follows: That a comprehensive and sequential program of nutrition education be included as an integral part of the curriculum of every school (preaschool through university) in the United States and its territories. Furthermore, the committee proposed that the "Basic Concepts for Nutrition Education" developed by the Interagency Committee on Education (42) be used as the basis for nutrition education for all people.

Nutrition education should not be considered necessary only for girls in home economics courses. A more extensive nutrition education program should be given tantamount attention such as all general education courses receive. Magrabi (49) found that the existing image of present home economics courses shows good potential for ready acceptance as general education courses.

The challenge and need can be summarized as expressed by Moore, Beasley and Moore (56, p. 340):

Sound nutrition education offered to both boys and girls in a planned and orderly fashion is rare. In many schools nutrition education is either dull or unimpressive, but boys miss even this exposure. Should nutrition education be withheld from the person who is going to sit at the head of the family table and set the pattern of family eating? The challenge to make nutrition education available as well as exciting and vital is evident. Will we, as educators, accept the challenge?

## How to Develop a Questionnaire

The term questionnaire is defined as: a written or printed form comprising a series of questions submitted to a number of persons in order to obtain data for a survey or report. It is generally used to obtain data from respondents not contacted on a face-to-face basis. According to Galfo (23), the instrument may be called a schedule if it is to be completed in the presence of the researcher.

Evans (20), a university research officer in Wales, describes two types of questionnaires. One type is subjective and is used to measure attitudes, opinions, likes and dislikes or other behavioral responses. Another type is objective and is used to obtain factual information.

Care should be taken to formulate a questionnaire which will serve the intended purpose. Care should also be taken to gather only the information needed. Furthermore, a well-prepared instrument may be developed if the research will utilize the principles of questionnaire construction.

Several authors $(6,20,23,48)$ agree that the questionnaire is more effective if the following criteria are met:

1. The questions should provide an opportunity for easy,
accurate and unambiguous responses.
2. Questions that require related restponses should be grouped together; it may be desirable to divide the instrument into specific sections.
3. The individual items and the complete instrument should both be as brief as possible.
4. The investigator should pre-determine whether manual or mechanical means will be used to compile and analyze returns; the mode of response should be organized accordingly.
5. The format should be arranged according to these considerations: attractiveness, neatness, and ease of response.
6. Directions, purpose of the study or any other pertinent information must be precise.

Galfo and Miller (23), urge the constructor of questionnaire items to carefully criticize each word, phrase and mode of response. The investigator shoudd then present the instrument to a number of experienced individuals. They may advise the investigator to eliminate or revise items which appear unsatisfactory.

For additional evaluation, the questionnaire should be administered to a group similar to the intended respondents. It may be necessary to conduct a second pre-test if extensive revisions are required. The researcher may expect reliable data when these steps are used to develop a refined instrument.

METHOD AND PROCEDURE

Determination of the Problem and Selection<br>of the Population

The author's experiences as an undergraduate at Langston University, coupled with more recent experiences as an instructor in the Department of Home Economics at the same institution, led her to develop a keen interest in the food habits of her students. This background was enhanced by her experiences as a peace corps volunteer in a Southeast Asian country and travel experiences in the United States, Asia and Europe.

It was her original intent to survey the food habits of the students. Efforts to pursue this intent coupled with the guidance of her advisor made it obvious that the study needed to be narrowed to one main aspect of their food habits. Food preferences was the aspect chosen for study.

## Selection of the Population

At the onset of the study, permission was requested and granted from the President of Langston University to study the preferences of the students at this college. See Appendix A, page 104. Cooperation from the faculty was initially secured through the office of the Dean of Academic Affairs. The food service director who is also head chef
agreed to assist the investigator in any way that he could to facilitate the successful completion of this investigation. The author, who is well-known by all of these persons, found it feasible to complete the majority of these negotiations by telephone calls and office visits.

After the writer had reviewed various literature and discussed the problem in more detail with her adviser, it became evident that the study would be more meaningful if the survey population included only those students: (I) who presently eat in the dining hall; or (2) who have ever eaten in the dining hall for a semester or more. This population included both male and female students of the freshman, sophomore, junior and senior levels.

## Development of the Research Instrument

Directions for developing questionnaires were studied before the instrument was formulated. Throughout the development of the questionnaire, as many suggestions were used as were feasible. The hedonic scale method which has been used by several investigators (38, 58, 59, $60,68)$ was chosen for the food preference list.

During the early stage of the study, the investigator attended a seminar which was sponsored by the Department of Computer Services at Oklahoma State University. The purpose of the seminar was to familiarize graduate students and other interested persons with the services available from the computer center. Information gained from attending this seminar was also considered when deciding the format for the tool. In order to determine the variety of food offered to students eating in the dining hall, a five-week cycle of menus was obtained from the director of food service. All items included in the food
preference list were chosen from these menus.
The information sought in the questionnaire was divided into these three sections: Section I, background data regarding their food habits; Section II, the food preference list; Section III, general background data such as age and sex. The questionnaire is given in Appendix B, page 106.

The completed questionnaire was presented to three faculty members experienced in making questionnaires for their evaluation. Revisions, based on their suggestions, were made. It was then pre-tested using a group of students from a neighboring university. The group which pretested the questionnaire was composed of students from different levels of classification and included both males and females. Their suggestions and questions were noted, and the questionnaire was further revised to remove ambiguous items. Again, consultation was held with the same three experienced persons who at this time approved the questionnaire.

Certain of the questionnaire items required special consideration in order to test the hypotheses of the study. These items include income, education of the parents, size of hometown, and travel experience.

The gross annual income was stratified so that it could be considered from these four levels of income as given by the U. S. Bureau of the Census (77):

1. Under $\$ 3,000$
2. $\$ 3,000$ to $\$ 4,999$
3. $\$ 5,000$ to $\$ 9,999$
4. \$10,000 and over

The education of the parents was considered from the following four groups as decided by the author and her adviser:

1. Grade School - the first eight grades of school
2. High school - grades 9-12
3. College - grades 13-16.
4. Graduate school - grades 17-20.

In this study rural areas were accepted as including open country through towns of 4,999 population. This was done because the type of food available in these areas was similar. All towns with a population of 5,000 and above were considered urban as foods available in these areas were common.

The amount of travel experience was considered extensive if the student had visited 15 or more states other than his home state.

## Administration of the Questionnaire

It was decided to administer the questionnaire during the regularly scheduled class hours. This method insured a better "return" than mailing the questionnaires or leaving them in the dormitories. Hours were chosen so that the likelihood of encountering students who had already answered the tool would be reduced. To double check, the students in each class were reminded not to participate if they had already completed a questionnaire.

Since some of the selected classes met concurrently, the participating faculty members agreed to assist the investigator. Questionnaires and instructions were given to those teachers so that they could administer the tool at the time of least conflict with their classwork. The author collected the completed questionnaires at the
time designated by the faculty members.

> Analysis of the Data

Thirty-two of the 384 returned questionnaires that were incomplete were deemed unsuitable and were rejected from the study. All of the questionnaire items from Section I were tallied by hand with the exception of item IX. All of the items in Section II were compiled and analyzed by computer at the Oklahoma State University Computing Center. See Appendix C. Items in Section III regarding income, education of parents, size of hometown and travel experience were also compiled by computer at the Oklahoma State University Computing Center; see Appendix C. The remaining items were tallied by hand. A Friden Printing Calculator was used to total the tallies.

Part of Sections I and III were not analyzed for two reasons: (1) Too few of the subjects responded; (2) The information anticipated from some of these items was provided by other items. The investigator was advised to use simple percentages to report the findings of the survey since the subjects essentially comprised a total population. The items in the food preference list were totaled and percentages were shown for frequency of response at each of six levels of preference. Responses were tabulated in order to compare the percentages who liked items very much to those who disliked items very much. It was then possible to compare the preferences of the students considering these factors:

1. Sex of students
2. Place of residence
3. Extent of travel
4. Age levels
5. Income levels
6. Education of parents
7. Classification of students
8. Students who eat some foods daily from the four food groups and students who do not

The three different degrees of "dislike" from the preference continuum were totaled for both males and females. It was decided to group the dislikes in the following manner in order to suggest how often to use the food items in menu making:

Dislikes below 10 per cent - use often
Dislikes 10 through 25 per cent - use occasionally
Dislikes 26 through 40 per cent - use with caution
Dislikes above 40 per cent - seldom use
Items that were tallied concerned the following: Satisfaction of the students with their dining hall and food; frequency with which subjects missed meals; reasons subjects missed meals; frequency of eating between meals; and reasons subjects ate between meals. These items were not compared to the food preferences, but were compiled to show some of the additional factors which may influence these preferences.

## CHAPTER IV

## RESULTS AND DISCUSSION

The students included in this survey have, for the most part, the likes and dislikes as reported by other investigators ( 61,27 ). A strong dislike for vegetables, organ meats, and combination menu items (mixtures) was evident in relation to each variable for which the population was considered.

Food Likes and Dislikes of the Male and Female Subjects

## Male Subjects

The 148 subjects who comprised the male population showed a strong dislike for ten of the 142 items in the food preference list. See Table 1. Liver, an organ meat, was one of the ten strongly disliked foods. This finding was not amazing as it has become recognized that organ meats are generally not well accepted. Vegetables comprised the remaining foods which were disliked by more than 40 per cent of the males.

Most of the foods strongly preferred by the males are breads and cereals. Foods in this class were disliked by less than 10 per cent of the men indicating that these foods would be well accepted and can be served often. Two desserts, ice cream and cake squares with icing, were also indicated as highly acceptable items. Surprisingly, milk was ranked in the "serve often" category; only

TABLE 1 Food disliked by the male population

|  | LESS | lo THROUGH | 26 | THROUGH |
| :--- | :---: | :---: | :---: | :---: |$\quad$ MORE

TABLE 1 (Continued)

| FOOD ITEM T | LESS <br> THAN 10 | 10 | THROUGH <br> 25 |  | $\begin{aligned} & \text { THROUGH } \\ & 40 \end{aligned}$ | MORE <br> THAN 40 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% |  | \% |  | $\%$ | \% |
| Fried Shrimp |  |  | 17.6 |  |  |  |
| Fried Fish Sticks |  |  | 14.2 |  |  |  |
| Tunafish Salad |  |  | 23.0 |  |  |  |
| Assorted Cold Cuts |  |  |  |  | 27.0 |  |
| Sloppy-Joe Burger on Bun |  |  | 21.0 |  |  |  |
| Submarine Sandwich |  |  | 16.9 |  |  |  |
| Hamburger on Bun |  |  | 12.2 |  |  |  |
| Grilled Ham and Cheese Sand. |  |  | 15.6 |  |  |  |
| Barbequed Beef on Bun |  |  | 14.9 |  |  |  |
| Hot Roast Beef Sandwich |  |  | 12.8 |  |  |  |
| Boiled Navy Beans |  |  |  |  | 32.4 |  |
| Blackeyed Peas |  |  |  |  | 27.0 |  |
| Baked Beans |  |  | 13.5 |  |  |  |
| Chili Beans |  |  | 15.5 |  |  |  |
| Scalloped Potatoes |  |  | 24.3 |  |  |  |
| Mashed Potatoes |  |  | 14.9 |  |  |  |
| Creamed Potatoes |  |  | 21.0 |  |  |  |
| French Fries |  |  | 10.8 |  |  |  |
| Candied Yams |  |  | 18.9 |  |  |  |
| Green Beans w/Ham or Bacon |  |  | 21.6 |  |  |  |
| Green Peas w/Ham or Bacon |  |  | 24.3 |  |  |  |
| Buttered Peas |  |  | 20.3 |  |  |  |
| Buttered Broccoli |  |  |  |  |  | 41.2 |
| Cream Style Corn |  |  | 15.5 |  |  |  |
| Buttered Whole Kernel Corn |  |  | 12.8 |  |  |  |
| Buttered Spinach |  |  |  |  | 31.8 |  |
| Creamed Spinach |  |  |  |  | 33.1 |  |
| Buttered Brussel Sprouts |  |  |  |  |  | 44.6 |
| Buttered Chopped Cabbage |  |  |  |  | 31.8 |  |
| Boiled Cabbage Wedges |  |  |  |  | 35.8 |  |
| Collard Greens |  |  |  |  | 27.0 |  |
| Buttered Turnip Greens |  |  |  |  | 35.1 |  |
| Stewed Tomatoes \& Okra |  |  | 24.3 |  |  |  |
| Sliced Fresh Tomatoes |  |  |  |  |  | 44.6 |
| Scalloped Tomatoes \& Corn |  |  |  |  | 38.5 |  |
| Stewed Tomatoes |  |  |  |  |  | 41.9 |

TABLE 1 (Continued)

| FOOD ITEM | LESS <br> THAN 10 |  | THROUGH 25 |  | $\begin{aligned} & \text { THROUGH } \\ & 40 \end{aligned}$ | $\begin{aligned} & \text { MORE } \\ & \text { THAN } 40 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% |  | \% |  | \% | \% |
| Breaded Tomatoes |  |  |  |  |  | 40.5 |
| Glazed Carrots |  |  |  |  | 35.1 |  |
| Peas and Carrots |  |  |  |  | 29.1 |  |
| Harvard Beets |  |  |  |  |  | 42.6 |
| Cauliflower w/Cheese Sauce |  |  |  |  |  | 44.6 |
| Mixed Vegetables |  |  |  |  | 25.7 |  |
| Yellow Summer Squash |  |  |  |  |  | 46.6 |
| Corn and Lima Beans |  |  |  |  | 34.5 |  |
| Buttered Green Lima Beans |  |  |  |  | 35.8 |  |
| Jello Salad w/Fruit <br> Apple Colery Sal ad |  |  | 19.6 21.6 |  |  |  |
| Apple_Celery Salad Cottage Cheese w/Fruit |  |  | 21.6 |  | 35.1 |  |
| Cottage Cheese w/Tomato |  |  |  |  |  | 45.3 |
| Cabbage Slaw |  |  |  |  | 27.0 |  |
| Sliced Tomatoes and Onions |  |  |  |  | 31.1 |  |
| Carrot and Raisin Salad |  |  |  |  | 39.2 |  |
| Relish Tray |  |  |  |  | 35.1 |  |
| Tossed Green Salad |  |  | 17.6 |  |  |  |
| Macaroni Salad |  |  | 23.7 |  |  |  |
| Chilled Potato Salad |  |  | 18.9 |  |  |  |
| Hot Potato Salad |  |  |  |  | 26.4 |  |
| Pancakes | 8.1 |  |  |  |  |  |
| Dry Cereal (Assorted) | 7.4 |  |  |  |  |  |
| Oatmeal |  |  | 20.3 |  |  |  |
| Cream of Wheat |  |  | 23.0 |  |  |  |
| Macaroni and Cheese |  |  | 18.9 |  |  |  |
| Steamed Rice |  |  | 23.0 |  |  |  |
| Buttered Noodles |  |  | 24.3 |  |  |  |
| Hot Rolls | 4.7 |  |  |  |  |  |
| Toast | 5.4 |  |  |  |  |  |
| Corn Bread |  |  | 11.5 |  |  |  |
| Sliced White Bread | 8.8 |  |  |  |  |  |
| Hot Biscuits | 6.1 |  |  |  |  |  |
| Sweet Rolls | 4.1 |  |  |  |  |  |
| Fresh Oranges | 8.8 |  |  |  |  |  |
| Fresh Bananas | 8.8 |  |  |  |  |  |

TABIE 1 (Continued)

| FOOD ITEM | $\begin{gathered} \text { LESSS } \\ \text { THAN } 10 \end{gathered}$ |  | $\begin{aligned} & \text { THROUGH } \\ & 25 \end{aligned}$ |  | THROUGH 40 | MORE THAN 40 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% |  | \% |  | \% | \% |
| Fresh Apples |  |  | 10.1 |  |  |  |
| Canned Pineapple |  |  | 10.1 |  |  |  |
| Stewed Prunes |  |  |  |  | 35.1 |  |
| Canned Purple Plums |  |  | 25.0 |  |  |  |
| Canned Peaches |  |  | 12.8 |  |  |  |
| Applesauce |  |  | 12.2 |  |  |  |
| Canned Apricots |  |  | 25.0 |  |  |  |
| Fruit Cocktail | 8.1 |  |  |  |  |  |
| Orange Juice | 6.1 |  |  |  |  |  |
| Vegetable (V-8) Juice |  |  | 20.3 |  |  |  |
| Grapefruit Juice |  |  | 16.9 |  |  |  |
| Cherry Cobbler |  |  | 13.5 |  |  |  |
| Peach Cobbler |  |  | 12.8 |  |  |  |
| Cream Pie |  |  | 16.9 |  |  |  |
| Sweet Potato Pie |  |  | 14.9 |  |  |  |
| Lemon Meringue Pie |  |  | 10.8 |  |  |  |
| Apple Pie |  |  | 10.1 |  |  |  |
| Apple Crisp |  |  | 10.1 |  |  |  |
| Ice Cream | 4.7 |  |  |  |  |  |
| Cake Squares w/Icing | 9.5 |  |  |  |  |  |
| Pineapple Upside-Down Cake |  |  | 10.8 |  |  |  |
| Cherry Short Cake |  |  | 13.5 |  |  |  |
| Cheese Cake |  |  | 18.3 |  |  |  |
| Gingerbread w/Applesauce |  |  | 18.9 |  |  |  |
| Vanilla Pudding |  |  | 20.3 |  |  |  |
| Bread Pudding w/Fruit Sauce |  |  | 25.0 |  |  |  |
| Rice and Fruit Pudding |  |  |  |  | 27.7 |  |
| Chocolate Pudding w/Coconut |  |  |  |  | 25.7 |  |
| Hot Chocolate |  |  | 10.8 |  |  |  |
| Milk | 6.8 |  |  |  |  |  |
| Iced Tea |  |  | 10.1 |  |  |  |
| Coffee |  |  | 22.3 |  |  |  |
| Punch | 9.5 |  |  |  |  |  |
| Buttermilk |  |  |  |  | 26.0 |  |

6.8 per cent of the males assigned milk to the disliked food items. Combination items, for example, stuffed green peppers, are not very popular among the men students. This result coincides with that reported by Pilgrim (61), who found that the American male prefers his food plain and simple.

## Female Subjects

The 204 subjects who represented the female population placed nine of the 142 food items in the extreme section of the negative percentile. See Table 2. Over 40 per cent of this group also reported liver as strongly disliked. Chitterlings, a "soul" food and also an organ meat, was not well liked by 45 per cent of the women students.

Females also dislike a vast number of the vegetables. They especially dislike yellow summer squash. Their preferred foods, like those of the males, were breads and cereals. Two "typical" American favorites were included among the three favorite desserts of the women. Less than 10 per cent reported a dislike for apple pie and ice cream. Peach cobbler was the third "choice" dessert item. Milk, "nature's most nearly perfect food," received a favorably high score as only nine per cent of this group indicated negative acceptance of milk. It seems that females also prefer their foods plain and simple. Combination menu items were equally lacking in popularity among the females as with the males.

TABLE 2 Food disliked by the female population

| FOOD ITEM | LESS <br> THAN 10 |  | THROUGH |  | THROUGH <br> 40 | MORE THAN 40 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% |  | \% |  | \% | \% |
| Steak in Tomato Sauce |  |  |  |  | 26.0 |  |
| Stuffed Green Peppers |  |  |  |  | 35.3 |  |
| Chicken Fried Steak |  |  | 24.5 |  |  |  |
| Roast Beef w/Natural Gravy |  |  | 21.1 |  |  |  |
| Meat Loaf |  |  | 16.2 |  |  |  |
| Chopped Steak |  |  | 18.1 |  |  |  |
| Meat Balls w/Spaghetti |  |  | 17.2 |  |  |  |
| Grilled Steak |  |  | 14.7 |  |  |  |
| Beef Stroganoff w/Noodles |  |  |  |  | 36.8 |  |
| Smothered Liver w/Onions |  |  |  |  |  | 40.2 |
| Beef Stew w/Vegetables |  |  |  |  | 34.8 |  |
| Chitterlings |  |  |  |  |  | 45.0 |
| Baked Cured Ham |  |  | 12.7 |  |  |  |
| Fresh Roast Pork |  |  | 14.2 |  |  |  |
| Grilled Pork |  |  | 14.7 |  |  |  |
| Barbequed Spare Ribs |  |  | 10.3 |  |  |  |
| Ham Hocks w/Pinto Beans |  |  |  |  | 27.9 |  |
| Grilled Polish Sausage |  |  | 20.6 |  |  |  |
| Breakfast Bacon |  |  | 11.3 |  |  |  |
| Link Sausage |  |  | 14.7 |  |  |  |
| Fried Ham |  |  | 11.3 |  |  |  |
| Ham and Macaroni w/Cheese |  |  | 23.5 |  |  |  |
| Scrambled Eggs |  |  | 23.5 |  |  |  |
| Fried Eggs |  |  |  |  | 36.3 |  |
| Fried Chicken |  |  | 11.8 |  |  |  |
| Baked Chicken |  |  | 15.7 |  |  |  |
| Barbequed Chicken |  |  | 11.8 |  |  |  |
| Chicken a'la King |  |  | 21.6 |  |  |  |
| Chicken Pot Pie |  |  |  |  | 32.8 |  |
| Baked Turkey w/Dressing |  |  | 14.2 |  |  |  |
| Chicken \& Noodle Casserole |  |  |  |  | 26.0 |  |
| Creamed Turkey |  |  |  |  | 29.9 |  |
| Tunafish Croquettes |  |  |  |  | 37.7 |  |
| Salmon Croquettes |  |  |  |  | 33.8 |  |
| Tuna-Noodle Casserole |  |  |  |  | 32.8 |  |
| Fried Catfish |  |  |  |  | 26.0 |  |

TABLE 2 (Continued)

| FOOD ITEM T | $\begin{gathered} \text { LESS } \\ \text { THAN } 10 \end{gathered}$ | $\begin{aligned} & 10 \text { THROUGH } \\ & 25 \end{aligned}$ | $\begin{aligned} & 26 \text { THROUGH } \\ & 40 \end{aligned}$ | $\begin{gathered} \text { MORE } \\ \text { THAN } 40 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | \% | \% | \% | \% |
| Fried Shrimp |  | 23.5 |  |  |
| Fried Fish Sticks |  | 21.6 |  |  |
| Tunafish Salad |  | 18.6 |  |  |
| Assorted Cold Cuts |  | 22.1 |  |  |
| Sloppy-Joe Burger on Bun |  | 23.0 |  |  |
| Submarine Sandwich |  | 15.2 |  |  |
| Hamburger on Bun |  | 10.8 |  |  |
| Grilled Ham and Cheese Sand. | 9.8 |  |  |  |
| Barbequed Beef on Bun |  | 20.6 |  |  |
| Hot Roast Beef Sandwich |  | 11.8 |  |  |
| Boiled Navy Beans |  |  | 32.4 |  |
| Blackeyed Peas |  |  | 31.9 |  |
| Baked Beans |  | 16.7 |  |  |
| Chili Beans |  | 15.2 |  |  |
| Scalloped Potatoes |  |  | 31.4 |  |
| Mashed Potatoes |  | 22.1 |  |  |
| Creamed Potatoes |  |  | 27.0 |  |
| French Fries | 7.8 |  |  |  |
| Candied Yams |  | 18.1 |  |  |
| Green Beans w/Ham or Bacon |  | 17.2 |  |  |
| Green Peas w/Ham or Bacon |  | 22.1 |  |  |
| Buttered Peas |  | 18.6 |  |  |
| Buttered Broccoli |  |  | 33.8 |  |
| Cream Style Corn |  | 15.7 |  |  |
| Buttered Whole Kernel Corn |  | 11.3 |  |  |
| Buttered Spinach |  |  | 27.9 |  |
| Creamed Spinach |  |  | 35.8 |  |
| Buttered Brussel Sprouts |  |  |  | 42.2 |
| Buttered Chopped Cabbage |  | 24.5 |  |  |
| Boiled Cabbage Wedges |  |  | 27.0 |  |
| Collard Greens |  |  | 27.0 |  |
| Buttered Turnip Greens |  |  | 30.4 |  |
| Stewed Tomatoes \& Okra |  |  |  | 40.2 |
| Sliced Fresh Tomatoes |  | 19.6 |  |  |
| Scalloped Tomatoes \& Corn Stewed Tomatoes |  |  | 39.2 | 42.6 |

TABIE 2 (Continued)

| FOOD ITEM | IESS <br> THAN 10 | 10 | $\begin{aligned} & \text { THROUGH } \\ & 25 \end{aligned}$ | 26 | THROUGH 40 | $\begin{gathered} \text { MORE } \\ \text { THAN } 40 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% |  | \% |  | \% | \% |
| Breaded Tomatoes |  |  |  |  | 35.8 |  |
| Glazed Carrots |  |  |  |  | 39.2 |  |
| Peas and Carrots |  |  |  |  | 38.7 |  |
| Harvard Beets |  |  |  |  | 27.9 |  |
| Cauliflower w/Cheese Sayce |  |  |  |  |  | 43.1 |
| Mixed Vegetables |  |  |  |  | 35.8 |  |
| Yellow Summer Squash |  |  |  |  |  | 51.0 |
| Corn and Lima Beans |  |  |  |  |  | 49.5 |
| Buttered Green Lima Beans |  |  |  |  |  | 46.6 |
| Jello Salad w/Fruit |  |  | 16.2 |  |  |  |
| ApplemCelery Salad |  |  | 21.1 |  |  |  |
| Cottage Cheese w/Fruit |  |  |  |  | 30.9 |  |
| Cottage Cheese w/Tomato |  |  |  |  | 39.7 |  |
| Cabbage Slaw |  |  | 23.5 |  |  |  |
| Sliced Tomatoes and Onions |  |  |  |  | 28.4 |  |
| Carrot and Raisin Salad |  |  |  |  | 34.3 |  |
| Relish Tray |  |  | 25.0 |  |  |  |
| Tossed Green Salad |  |  | 15.2 |  |  |  |
| Macaroni Salad |  |  | 22.5 |  |  |  |
| Chilled Potato Salad |  |  | 15.7 |  |  |  |
| Hot Potato Salad |  |  |  |  | 34.3 |  |
| Pancakes | 6.8 |  |  |  |  |  |
| Dry Cereal (Assorted) | 9.3 |  |  |  |  |  |
| Oatmeal |  |  | 25.0 |  |  |  |
| Cream of Wheat |  |  |  |  | 30.9 |  |
| Macaroni and Cheese |  |  | 11.3 |  |  |  |
| Steamed Rice |  |  |  |  | 27.0 |  |
| Buttered Noodles |  |  |  |  | 27.0 |  |
| Hot Rolls | 5.9 |  |  |  |  |  |
| Toast | 2.9 |  |  |  |  |  |
| Corn Bread |  |  | 13.2 |  |  |  |
| Sliced White Bread | 8.3 |  |  |  |  |  |
| Hot Biscuits | 5.9 |  |  |  |  |  |
| Sweet Rolls | 4.9 |  |  |  |  |  |
| Fresh Orarges | 8.3 |  |  |  |  |  |
| Fresh Bananas |  |  | 10.3 |  |  |  |

TABLE 2 (Continued)

| FOOD ITEM | $\begin{gathered} \text { LESS } \\ \text { THAN } 10 \end{gathered}$ | 10 THROUGH 25 | 26 THROUGH | $\begin{gathered} \text { MORE } \\ \text { THAN } 40 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | \% | \% | \% | \% |
| Fresh Apples | 8.8 |  |  |  |
| Canned Pineapple | 7.8 |  |  |  |
| Stewed Prunes |  |  | 30.4 |  |
| Canned Purple Plums |  |  | 26.0 |  |
| Canned Peaches |  | 10.3 |  |  |
| Applesauce |  | 15.2 |  |  |
| Canned Apricots |  |  | 32.4 |  |
| Fruit Cocktail | 6.9 |  |  |  |
| Orange Juice | 4.9 |  |  |  |
| Vegetable (V-8) Juice |  |  | 27.0 |  |
| Grapefruit Juice |  | 19.1 |  |  |
| Cherry Cobbler |  | 10.3 |  |  |
| Peach Cobbler | 8.3 |  |  |  |
| Cream Pie |  | 19.6 |  |  |
| Sweet Potato Pie |  | 16.7 |  |  |
| Lemon Meringue Pie |  | 11.8 |  |  |
| Apple Pie | 9.3 |  |  |  |
| Apple Crisp |  | 12.7 |  |  |
| Ice Cream | 3.4 |  |  |  |
| Cake Squares w/Icing |  | 12.7 |  |  |
| Pineapple Upside-Down Cake |  | 10.8 |  |  |
| Cherry Short Cake |  | 16.7 |  |  |
| Cheese Cake |  | 23.0 |  |  |
| Gingerbread w/Applesauce |  |  | 26.0 |  |
| Vanilla Pudding |  |  | 31.9 |  |
| Bread Pudding w/Fruit Sauce |  |  | 33.8 |  |
| Rice and Fruit Pudding |  |  | 36.3 |  |
| Chocolate Pudding w/Coconut |  |  | 35.8 |  |
| Hot Chocolate | 4.9 |  |  |  |
| Milk | 9.3 |  |  |  |
| Ieed Tea |  | 12.7 |  |  |
| Coffee |  |  | 27.9 |  |
| Punch |  | 13.7 |  |  |
| Buttermilk |  |  | 34.3 |  |

# Food Likes and Dislikes of Subjects <br> According to Place of Residence 

A superior number, 247 students, were from urban areas. More than 10 per cent of these students scored each of 69 food items (nearly onemhalf) as "dislike very much." See Table 3. Combination dishes, organ meats, fish, vegetables, one-half of the canned fruits, onethird of the desserts, and one-third of the beverages were included in this category. Six of these foods, liver, chitterlings, buttered brussel sprouts, stewed tomatoes and okra, cauliflower with cheese sauce, and yellow summer squash were strongly disliked by more than 25 per cent of the urban respondents.

Participants from the rural areas, 73 students, had fewer dislikes than those students from urban areas. Ten per cent or more of the rural group categorized 45 items (less than one-third) as extremely disliked. Generally, their dislikes fit the same food classes as those dislikes of the urban subjects. The main exception is that they prefer more of the dessert items than the urban group.

In several cases the dislikes of the urban group doubled or even tripled those of the rural group. For example, 27.1 per cent of the urban group dislike liver in contrast to 13.7 per cent of the rural subjects. Another example is chicken fried steak; urban students indicated a dislike for this food which almost quadrupled that reparted by the rural group. Even though both groups usually accepted milk and milk products, neither sector likes buttermilk very well.

TABLE 3 Food likes and dislikes of subjects according to place of restdence

| FOOD ITEM | LIKES Rural | VERY MUCH Urban | DISLIKES <br> Rural | VERY MUCH Urban |
| :---: | :---: | :---: | :---: | :---: |
|  | \% | \% | \% | \% |
| Steak in Tomato Sauce | 15.1 | 23.9 | 9.6 | 8.9 |
| Stuffed Green Peppers | 13.7 | 17.4 | 17.8 | 16.6 |
| Chicken Fried Steak | 27.4 | 33.2 | 2.7 | 10.1 |
| Roast Beef w/Natural Gravy | 32.9 | 38.9 | 5.5 | 7.7 |
| Meat Loaf | 28.8 | 35.2 | 5.5 | 5.7 |
| Chopped Steak | 24.7 | 29.5 | 4.1 | 6.5 |
| Meat Balls w/Spaghetti | 31.5 | 34.4 | 4.1 | 7.3 |
| Grilled Steak | 31.5 | 35.2 | 4.1 | 4.8 |
| Beef Stroganoff w/Noodles | 8.2 | 19.0 | 10.9 | 13.8 |
| Smothered Liver w/Onions | 34.2 | 24.3 | 13.7 | 27.1 |
| Beef Stew w/Vegetables | 26.0 | 19.8 | 8.2 | 12.9 |
| Chitterlings | 23.3 | 29.5 | 34.2 | 31.2 |
| Baked Cured Ham | 34.2 | 37.6 | 1.4 | 6.1 |
| Fresh Roast Pork | 24.7 | 32.4 | 1.4 | 7.3 |
| Grilled Pork | 23.3 | 29.2 | 0.0 | 5.7 |
| Barbequed Spare Ribs | 49.3 | 51.4 | 2.7 | 6.5 |
| Ham Hocks w/Pinto Beans | 34.2 | 31.9 | 11.0 | 10.1 |
| Grilled Polish Sausage | 19.2 | 21.8 | 5.5 | 9.3 |
| Breakfast Bacon | 43.8 | 44.1 | 0.0 | 7.3 |
| Link Sausage | 34.2 | 38.9 | 2.7 | 8.5 |
| Fried Ham | 34.2 | 40.9 | 1.4 | 5.3 |
| Ham and Macaroni w/Cheese | 27.4 | 27.9 | 5.5 | 13.0 |
| Scrambled Eggs | 35.6 | 38.9 | 6.8 | 9.7 |
| Fried Eggs | 21.9 | 30.4 | 9.6 | 17.8 |
| Fried Chicken | 53.4 | 55.1 | 0.0 | 4.8 |
| Baked Chicken | 37.0 | 39.7 | 2.7 | 6.5 |
| Barbequed Chicken | 45.2 | 50.6 | 2.7 | 4.8 |
| Chicken ala King | 17.8 | 25.5 | 6.8 | 10.1 |
| Chicken Pot Pie | 19.2 | 29.5 | 8.2 | 12.1 |
| Baked Turkey w/Dressing | 42.5 | 41.3 | 2.7 | 6.9 |
| Chicken \& Noodle Casserole | 20.5 | 27.5 | 8.2 | 8.5 |
| Creamed Turkey | 15.1 | 23.1 | 6.8 | 10.9 |
| Tunafish Croquettes | 8.2 | 22.3 | 12.3 | 15.8 |
| Salmon Croquettes | 8.2 | 21.9 | 11.0 | 15.4 |
| Tuna-Noodle Casserole | 12.3 | 22.3 | 11.0 | 13.4 |
| Fried Catfish | 23.3 | 30.8 | 4.1 | 13.8 |

TABLE 3 (Continued)

| FOOD ITEM | LIKES <br> Rural | VERY MUCH Urban | DISLIKES <br> Rural | VERY MUCH Urban |
| :---: | :---: | :---: | :---: | :---: |
|  | \% | \% | \% | \% |
| Fried Shrimp | 23.3 | 47.4 | 13.7 | 11.7 |
| Fried Fish Sticks | 35.6 | 42.9 | 9.6 | 9.3 |
| Tunafish Salad | 23.3 | 33.2 | 2.7 | 8.1 |
| Assorted Cold Cuts | 20.5 | 27.9 | 13.7 | 10.5 |
| Sloppy-Joe Burger on Bun | 16.4 | 36.4 | 6.8 | 8.5 |
| Submarine Sandwich | 23.3 | 24.7 | 8.2 | 6.5 |
| Hamburger on Bun | 12.3 | 44.1 | 2.7 | 6.1 |
| Grilled Ham and Cheese Sand | 38.4 | 42.9 | 1.4 | 6.5 |
| Barbequed Beef on Bun | 43.8 | 47.8 | 6.8 | 7.3 |
| Hot Roast Beef Sandwich | 32.9 | 38.9 | 2.7 | 5.3 |
| Boiled Navy Beans | 31.5 | 19.0 | 17.8 | 15.8 |
| Blackeyed Peas | 17.8 | 25.5 | 11.0 | 14.9 |
| Baked Beans | 24.7 | 35.2 | 1.4 | 7.7 |
| Chili Beans | 34.2 | 40.5 | 1.4 | 8.5 |
| Scalloped Potatoes | 34.2 | 21.0 | 12.3 | 12.9 |
| Mashed Potatoes | 13.7 | 34.4 | 6.8 | 8.5 |
| Creamed Potatoes | 30.1 | 30.8 | 6.8 | 10.1 |
| French Fries | 27.4 | 51.8 | 0.0 | 5.3 |
| Candied Yams | 47.9 | 37.2 | 8.2 | 9.7 |
| Green Beans w/Ham or Bacon | 37.0 | 35.6 | 1.4 | 8.5 |
| Green Peas w/Ham or Bacon | 38.4 | 28.7 | 2.7 | 10.1 |
| Buttered Peas | 20.5 | 31.2 | 4.1 | 10.1 |
| Buttered Broccoli | 21.9 | 23.1 | 23.3 | 19.8 |
| Cream Style Corn | 12.3 | 42.9 | 2.7 | 4.8 |
| Buttered Whole Kernel Corn | 39.7 | 44.5 | 0.0 | 5.3 |
| Buttered Spinach | 16.4 | 28.7 | 19.2 | 17.0 |
| Creamed Spinach | 9.6 | 23.5 | 24.7 | 18.6 |
| Buttered Brussel Sprouts | 6.8 | 14.9 | 24.7 | 28.3 |
| Buttered Chopped Cabbage | 15.1 | 25.5 | 17.8 | 14.2 |
| Boiled Cabbage Wedges | 12.3 | 21.5 | 15.1 | 15.8 |
| Collard Greens | 21.9 | 29.9 | 19.2 | 12.1 |
| Buttered Turnip Greens | 17.8 | 24.7 | 21.9 | 14.6 |
| Stewed Tomatoes \& Okra | 15.1 | 19.4 | 21.9 | 25.5 |
| Sliced Fresh Tomatoes | 35.6 | 38.5 | 9.6 | 10.9 |
| Scalloped Tomatoes and Corn | 6.8 | 14.9 | 16.4 | 18.6 |
| Stewed Tomatoes | 5.5 | 14.9 | 27.4 | 24.7 |

TABLE 3 (Continued)

| FOOD ITEM | LIKES <br> Rural | VERY MUCH Urban | DISLIKES <br> Rural | VERY MUCH Urban |
| :---: | :---: | :---: | :---: | :---: |
|  | $\%$ | \% | $\%$ | \% |
| Breaded Tomatoes | 6.8 | 11.3 | 17.8 | 18.6 |
| Glazed Carrots | 11.0 | 14.6 | 13.7 | 21.5 |
| Peas and Carrots | 16.4 | 18.2 | 9.6 | 19.4 |
| Harvard Beets | 12.3 | 18.2 | 16.4 | 21.8 |
| Cauliflower w/Cheese Sauce | 4.1 | 12.9 | 26.1 | 30.8 |
| Mixed Vegetables | 16.4 | 22.7 | 10.9 | 18.6 |
| Yellow Summer Squash | 5.5 | 10.5 | 26.0 | 36.0 |
| Corn and Lima Beans | 8.2 | 15.8 | 19.2 | 22.3 |
| Buttered Green Lima Beans | 8.2 | 17.0 | 21.9 | 22.7 |
| Jello Salad w/Fruit | 39.7 | 37.6 | 4.1 | 8.1 |
| Apple_Celery Salad | 17.8 | 26.7 | 6.8 | 9.7 |
| Cottage Cheese w/Fruit | 17.8 | 27.9 | 20.5 | 19.4 |
| Cottage Cheese w/Tomato | 6.8 | 13.4 | 20.5 | 23.5 |
| Cabbage Slaw | 20.5 | 26.7 | 5.5 | 15.8 |
| Sliced Tomatoes and Onions | 15.1 | 24.7 | 16.4 | 15.8 |
| Carrot and Raisin Salad | 9.6 | 20.2 | 15.1 | 21.5 |
| Relish Tray | 15.1 | 18.6 | 10.9 | 15.8 |
| Tossed Green Salad | 32.9 | 37.6 | 5.5 | 6.5 |
| Macaroni Salad | 17.8 | 22.7 | 6.8 | 11.3 |
| Chilled Potato Salad | 30.1 | 39.7 | 4.1 | 8.1 |
| Hot Potato Salad | 23.3 | 23.5 | 5.5 | 17.8 |
| Pancakes | 54.8 | 61.1 | 1.4 | 5.3 |
| Dry Cereal (Assorted) | 39.7 | 45.3 | 1.4 | 4.1 |
| Oatmeal | 30.1 | 30.4 | 6.8 | 12.2 |
| Cream of Wheat | 28.8 | 29.9 | 15.1 | 12.6 |
| Macaroni and Cheese | 38.4 | 41.3 | 5.5 | 6.9 |
| Steamed Rice | 23.3 | 31.6 | 5.5 | 10.5 |
| Buttered Noodles | 9.6 | 25.1 | 6.8 | 11.3 |
| Hot Rolls | 65.7 | 66.0 | 1.4 | 3.6 |
| Toast | 64.4 | 63.2 | 1.4 | 2.0 |
| Corn Bread | 50.7 | 51.8 | 1.4 | 8.1 |
| Sliced White Bread | 53.4 | 50.6 | 1.4 | 3.6 |
| Hot Biscuits | 61.6 | 61.5 | 2.7 | 2.0 |
| Sweet Rolls | 63.0 | 61.9 | 1.4 | 1.6 |
| Fresh Oranges | 61.6 | 66.8 | 1.4 | 3.6 |
| Fresh Bananas | 58.9 | 57.5 | 4.1 | 4.8 |

TABLE 3 (Continued)

| FOOD ITEM | LIKES <br> Rural | VERY MUCH Urban | DISLIKES Rural | VERY MUCH Urban |
| :---: | :---: | :---: | :---: | :---: |
|  | \% | \% | \% | \% |
| Fresh Apples | 63.0 | 63.6 | 1.4 | 4.9 |
| Canned Pineapple | 58.9 | 52.2 | 2.7 | 3.6 |
| Stewed Prunes | 15.1 | 17.8 | 21.9 | 19.8 |
| Canned Purple Plums | 19.2 | 24.3 | 17.8 | 14.6 |
| Canned Peaches | 45.2 | 47.8 | 5.5 | 5.7 |
| Applesauce | 42.5 | 41.7 | 2.7 | 6.1 |
| Canned Apricots | 21.9 | 24.3 | 10.9 | 14.2 |
| Fruit Cocktail | 71.2 | 59.5 | 1.4 | 4.9 |
| Orange Juice | 68.5 | 65.9 | 1.4 | 2.8 |
| Vegetable (V-8) Juice | 26.0 | 31.9 | 10.9 | 13.8 |
| Grapefruit Juice | 38.4 | 46.1 | 5.5 | 9.7 |
| Cherry Cobbler | 61.6 | 55.9 | 6.8 | 6.1 |
| Peach Cobbler | 61.6 | 56.3 | 5.5 | 4.9 |
| Cream Pie | 54.8 | 44.5 | 8.2 | 8.1 |
| Sweet Potato Pie | 58.9 | 51.4 | 4.1 | 7.7 |
| Lemon Meringue Pie | 56.2 | 54.2 | 4.1 | 5.7 |
| Apple Pie | 58.9 | 56.7 | 2.7 | 6.1 |
| Apple Crisp | 47.9 | 46.6 | 1.4 | 6.5 |
| Ice Cream | 72.6 | 69.2 | 0.0 | 2.8 |
| Cake Squares w/Icing | 49.3 | 47.4 | 1.4 | 6.1 |
| Pineapple Upside-Down Cake | 54.8 | 48.2 | 2.7 | 6.1 |
| Cherry Short Cake | 45.2 | 44.9 | 4.1 | 8.9 |
| Cheese Cake | 26.0 | 34.4 | 13.7 | 10.5 |
| Gingerbread w/Applesauce | 34.2 | 34.8 | 6.8 | 10.1 |
| Vanilla Pudding | 38.4 | 34.4 | 6.8 | 12.5 |
| Bread Pudding w/Fruit Sauce | 28.8 | 25.1 | 8.2 | 15.4 |
| Rice and Fruit Pudding | 24.7 | 23.1 | 9.6 | 16.6 |
| Chocolate Pudding w/Coconut | 32.9 | 33.6 | 9.6 | 15.8 |
| Hot Chocolate | 53.4 | 50.2 | 0.0 | 3.2 |
| Milk | 69.9 | 65.9 | 6.8 | 4.9 |
| Iced Tea | 53.4 | 53.4 | 10.9 | 6.1 |
| Coffee | 38.4 | 38.5 | 15.1 | 13.8 |
| Punch | 58.9 | 53.0 | 5.5 | 5.3 |
| Buttermilk | 34.3 | 25.6 | 19.2 | 21.9 |

## Food Likes and Dislikes of Subjects According to Extent of Travel

To a large degree, the students surveyed at Langston University have limited travel experience. More than 10 per cent of these students recorded extreme dislike for 56 of the 142 items in the preference list. See Table 4. They indicated low preferences for the foods that are generally identified as "low acceptance" items: mixtures, organ meats, fish, vegetables, canned fruit, and soft puddings. For example, this group did not like rịce and fruit pudding.

Those who have traveled extensively seem to have limited food likes. More than 10 per cent of these individuals placed each of 96 of the 142 food items ( 68 per cent) in the "dislike very much" column. Twenty-four of the 96 foods were considered extremely disliked by more than 25 per cent of the extensively traveled respondents.

Primarily, the severely disliked foods identified by both the extensive and limited travel categories are in the same food groups. Those with extensive travel experience dislike more vegetables and more meats, particularly the combination dishes.

The investigator was astonished to see such an overwhelming list of extreme dislikes among this group of students with the more sophisticated background. It was anticipated that the difference, if any, would have been opposite to these findings.

A possible explanation is that the respondents with extensive travel experience may be students from other regions of the country. Their low preference ratings may indicate a dislike for the preparation techniques rather than the actual food items.

TABLE 4 Food likes and dislikes of subjects according to extent of travel

| FOOD ITEM | LIKES <br> Limited | VERY MUCH Extensive | DISLIKES <br> Limited | VERY MUCH Extensive |
| :---: | :---: | :---: | :---: | :---: |
|  | \% | \% | \% | \% |
| Steak in Tomato Sauce | 21.4 | 27.3 | 8.3 | 13.6 |
| Stuffed Green Peppers | 14.9 | 27.3 | 14.9 | 27.3 |
| Chicken Fried Steak | 30.8 | 36.4 | 8.0 | 11.4 |
| Roast Beef w/Natural Gravy | 36.2 | 47.7 | 5.8 | 13.6 |
| Meat Loaf | 32.6 | 40.9 | 4.4 | 11.4 |
| Chopped Steak | 26.8 | 38.6 | 4.4 | 13.6 |
| Meat Balls w/Spaghetti | 31.9 | 43.2 | 5.8 | 9.1 |
| Grilled Steak | 32.2 | 47.7 | 3.6 | 9.1 |
| Beef Stroganoff w/Noodles | 15.2 | 22.7 | 12.7 | 13.6 |
| Smothered Liver w/Onions | 25.4 | 31.8 | 23.2 | 29.5 |
| Beef Stew w/Vegetables | 20.3 | 27.3 | 11.2 | 15.9 |
| Chitterlings | 26.4 | 40.9 | 32.3 | 29.5 |
| Baked Cured Ham | 36.6 | 38.6 | 4.4 | 9.1 |
| Fresh Roast Pork | 29.4 | 40.9 | 4.7 | 13.6 |
| Grilled Pork | 25.7 | 40.9 | 3.6 | 9.1 |
| Barbequed Spare Ribs | 50.0 | 54.5 | 4.7 | 13.6 |
| Ham Hocks w/Pinto Beans | 31.8 | 36.4 | 9.4 | 18.2 |
| Grilled Polish Sausage | 20.3 | 27.3 | 8.0 | 11.4 |
| Breakfast Bacon | 43.5 | 47.7 | 5.1 | 11.4 |
| Link Sausage | 36.6 | 45.4 | 6.2 | 15.9 |
| Fried Ham | 39.1 | 40.9 | 4.0 | 9.1 |
| Ham \& Macaroni w/Cheese | 27.2 | 31.8 | 10.1 | 22.7 |
| Scrambled Eggs | 26.9 | 45.4 | 8.3 | 13.6 |
| Fried Eggs | 26.4 | 40.9 | 15.6 | 18.2 |
| Fried Chicken | 53.6 | 61.4 | 3.3 | 6.8 |
| Baked Chicken | 37.0 | 52.3 | 4.7 | 9.1 |
| Barbequed Chicken | 48.9 | 54.5 | 4.3 | 4.5 |
| Chicken a'la King | 21.0 | 40.9 | 8.3 | 13.6 |
| Chicken Pot Pie | 26.4 | 34.1 | 9.4 | 20.4 |
| Baked Turkey w/Dressing | 40.6 | 47.7 | 5.1 | 11.4 |
| Chicken \& Noodle Casserole | 23.5 | 38.6 | 6.5 | 20.4 |
| Creamed Turkey | 19.6 | 31.8 | 8.3 | 20.4 |
| Tunafish Croquettes | 18.1 | 25.0 | 15.6 | 15.9 |
| Salmon Croquettes | 17.0 | 29.6 | 15.2 | 15.9 |
| Tuna-Noodle Casserole | 18.5 | 29.6 | 13.0 | 18.2 |
| Fried Catfish | 28.6 | 34.1 | 11.6 | 13.6 |

TABLE 4 (Continued)

| FOOD ITEM | LIKES <br> Limited | VERY MUCH Extensive | DISLIKES <br> Limited | VERY MUCH Extensive |
| :---: | :---: | :---: | :---: | :---: |
|  | \% | \% | \% | \% |
| Fried Shrimp | 40.6 | 70.4 | 11.9 | 11.4 |
| Fried Fish Sticks | 36.9 | 47.7 | 8.7 | 13.6 |
| Tunafish Salad | 30.4 | 29.5 | 5.1 | 18.2 |
| Assorted Cold Cuts | 25.0 | 29.5 | 10.5 | 15.9 |
| Sloppy-Joe Burger on Bun | 34.1 | 29.5 | 7.6 | 9.1 |
| Submarine Sandwich | 21.0 | 29.5 | 8.0 | 2.3 |
| Hamburger on Bun | 43.1 | 43.2 | 4.3 | 9.1 |
| Grilled Ham and Cheese Sand. | 42.7 | 47.7 | 4.7 | 9.1 |
| Barbequed Beef on Bun | 44.6 | 43.2 | 6.2 | 11.4 |
| Hot Roast Beef Sandwich | 36.6 | 40.9 | 4.0 | 9.1 |
| Boiled Navy Beans | 17.4 | 29.6 | 15.6 | 18.2 |
| Blackeyed Peas | 23.9 | 34.1 | 14.1 | 15.9 |
| Baked Beans | 34.1 | 43.2 | 4.7 | 13.6 |
| Chili Beans | 38.8 | 43.2 | 6.5 | 11.4 |
| Scalloped Potatoes | 17.4 | 34.1 | 11.6 | 15.9 |
| Mashed Potatoes | 31.9 | 45.4 | 6.5 | 13.6 |
| Creamed Potatoes | 27.9 | 45.4 | 7.9 | 13.6 |
| French Fries | 50.4 | 56.8 | 3.3 | 6.8 |
| Candied Yams | 37.0 | 40.9 | 9.1 | 9.1 |
| Green Beans w/Ham or Bacon | 36.2 | 38.6 | 6.2 | 11.4 |
| Green Peas w/Ham or Bacon | 27.5 | 25.0 | 7.9 | 13.6 |
| Buttered Peas | 27.5 | 40.9 | 7.9 | 13.6 |
| Buttered Broccoli | 19.2 | 31.8 | 20.3 | 20.4 |
| Cream Style Corn | 39.1 | 50.0 | 4.3 | 4.5 |
| Buttered Whole Kernel Corn | 42.7 | 50.0 | 3.6 | 6.8 |
| Buttered Spinach | 23.9 | 40.9 | 17.0 | 15.9 |
| Creamed Spinach | 18.1 | 36.4 | 20.3 | 18.2 |
| Buttered Brussel Sprouts | 12.7 | 15.9 | 26.4 | 34.1 |
| Buttered Chopped Cabbage | 22.8 | 25.0 | 12.7 | 27.3 |
| Boiled Cabbage Wedges | 18.8 | 25.0 | 13.0 | 29.5 |
| Collard Greens | 26.1 | 43.2 | 13.4 | 15.9 |
| Buttered Turnip Greens | 21.7 | 31.8 | 16.3 | 20.4 |
| Stewed Tomatoes \& Okra | 17.7 | 22.7 | 23.2 | 36.4 |
| Sliced Fresh Tomatoes | 36.9 | 43.2 | 8.7 | 25.0 |
| Scalloped Tomatoes \& Corn | 13.0 | 15.9 | 15.2 | 36.4 |
| Stewed Tomatoes | 11.9 | 20.4 | 23.9 | 31.8 |

TABLE 4 (Continued)

| FOOD ITEM | LIKES <br> Limited | VERY MUCH Extensive | DISLIKES <br> Limited | VERY MUCH Extensive |
| :---: | :---: | :---: | :---: | :---: |
|  | \% | \% | \% | \% |
| Breaded Tomatoes | 9.1 | 18.2 | 17.4 | 27.3 |
| Glazed Carrots | 14.1 | 13.6 | 17.4 | 34.1 |
| Peas and Carrots | 18.5 | 15.9 | 14.1 | 34.1 |
| Harvard Beets | 17.0 | 18.2 | 19.6 | 27.3 |
| Cauliflower w/Cheese Sauce | 10.5 | 13.6 | 30.1 | 29.5 |
| Mixed Vegetables | 20.3 | 29.6 | 14.1 | 29.5 |
| Yellow Summer Squash | 8.3 | 15.9 | 32.9 | 40.9 |
| Corn and Lima Beans | 13.0 | 22.7 | 20.3 | 29.5 |
| Buttered Green Lima Beans | 14.5 | 20.4 | 22.1 | 25.0 |
| Jello Salad w/Fruit | 38.8 | 34.1 | 6.9 | 13.6 |
| Apple-Celery Salad | 24.3 | 29.5 | 8.0 | 18.2 |
| Cottage Cheese w/Fruit | 26.1 | 25.0 | 19.6 | 20.5 |
| Cottage Cheese w/Tomato | 10.9 | 18.2 | 22.5 | 29.5 |
| Cabbage Slaw | 25.4 | 27.3 | 12.3 | 22.7 |
| Sliced Tomatoes \& Onions | 21.4 | 31.8 | 15.2 | 22.7 |
| Carrot and Raisin Salad | 17.7 | 20.4 | 18.5 | 29.5 |
| Relish Tray | 16.7 | 25.0 | 14.5 | 18.2 |
| Tossed Green Salad | 36.6 | 38.6 | 5.4 | 11.4 |
| Macaroni Salad | 20.6 | 27.3 | 9.1 | 15.9 |
| Chilled Potato Salad | 38.8 | 29.5 | 5.1 | 18.2 |
| Hot Potato Salad | 24.3 | 20.4 | 12.3 | 29.5 |
| Pancakes | 58.3 | 68.2 | 4.0 | 9.1 |
| Dry Cereal (Assorted) | 43.8 | 43.2 | 2.5 | 11.4 |
| Oatmeal | 29.7 | 34.1 | 10.9 | 13.6 |
| Cream of Wheat | 29.3 | 34.1 | 13.1 | 13.6 |
| Macaroni and Cheese | 39.5 | 50.0 | 5.1 | 13.6 |
| Steamed Rice | 30.4 | 27.3 | 8.0 | 15.9 |
| Buttered Noodles | 22.1 | 20.4 | 8.3 | 20.4 |
| Hot Rolls | 65.6 | 70.4 | 2.2 | 9.1 |
| Toast | 64.1 | 59.1 | 0.7 | 9.1 |
| Corn Breaḍ | 51.2 | 54.5 | 5.1 | 15.9 |
| Sliced White Bread | 52.2 | 47.7 | 2.2 | 9.1 |
| Hot Biscuits | 60.9 | 48.2 | 1.8 | 4.5 |
| Sweet Rolls | 63.4 | 56.8 | 1.1 | 4.5 |
| Fresh Oranges | 65.6 | 63.6 | 2.5 | 6.8 |
| Fresh Bananas | 59.4 | 45.4 | 4.4 | 9.1 |

TABLE 4 (Continued)

| FOOD ITEM Li | LTKES <br> Limited | VERY MUCH Extensive | DISLIKES <br> Limited | VERY MUCH Extensive |
| :---: | :---: | :---: | :---: | :---: |
|  | \% | \% | \% | \% |
| Fresh Apples | 63.4 | 61.4 | 3.6 | 6.8 |
| Canned Pineapple | 54.4 | 52.3 | 2.9 | 4.5 |
| Stewed Prunes | 18.5 | 11.4 | 19.6 | 27.3 |
| Canned Purple Plums | 23.2 | 25.0 | 14.5 | 20.4 |
| Canned Peaches | 46.7 | 47.7 | 4.7 | 11.4 |
| Applesauce | 42.1 | 40.9 | 4.7 | 9.1 |
| Canned Apricots | 23.2 | 27.3 | 13.8 | 13.6 |
| Fruit Cocktail | 61.6 | 68.2 | 3.3 | 9.1 |
| Orange Juice | 65.9 | 70.4 | 1.8 | 6.8 |
| Vegetable (V-8) Juice | 29.7 | 36.4 | 11.9 | 22.7 |
| Grapefruit Juice | 43.8 | 47.7 | 8.7 | 9.1 |
| Cherry Cobbler | 55.4 | 68.2 | 5.8 | 9.1 |
| Peach Cobbler | 55.4 | 68.2 | 4.7 | 6.8 |
| Cream Pie | 46.4 | 52.3 | 8.0 | 9.1 |
| Sweet Potato Pie | 52.5 | 56.8 | 6.9 | 6.8 |
| Lemon Meringue Pie | 54.4 | 56.8 | 5.1 | 6.8 |
| Apple Pie | 55.8 | 68.2 | 4.7 | 9.1 |
| Apple Crisp | 44.9 | 63.6 | 5.1 | 6.8 |
| Ice Cream | 70.6 | 68.2 | 1.4 | 6.8 |
| Cake Squares w/Icing | 47.8 | 50.0 | 4.0 | 11.4 |
| Pineapple Upside-Down Cake | 48.5 | 46.8 | 5.4 | 4.5 |
| Cherry Short Cake | 44.6 | 50.0 | 8.0 | 6.8 |
| Cheese Cake | 31.5 | 40.9 | 11.6 | 9.1 |
| Gingerbread w/Applesauce | 34.4 | 36.4 | 8.3 | 15.9 |
| Vanilla Pudding | 35.8 | 31.8 | 17.6 | 9.1 |
| Bread Pudding w/Fruit Sauce | 25.7 | 27.3 | 13.8 | 13.6 |
| Rice and Fruit Pudding | 22.8 | 27.3 | 14.9 | 15.9 |
| Chocolate Pudding w/Coconut | t 34.1 | 29.5 | 14.1 | 15.9 |
| Hot Chocolate | 52.2 | 43.2 | 2.2 | 4.5 |
| Milk | 67.7 | 61.4 | 4.4 | 9.1 |
| Iced Tea | 54.0 | 47.7 | 7.6 | 4.5 |
| Coffee | 39.5 | 31.8 | 14.1 | 15.9 |
| Punch | 55.1 | 50.0 | 4.3 | 11.4 |
| Buttermilk | 25.8 | 36.4 | 21.8 | 20.4 |

## Food Likes and Dislikes of Subjects <br> According to Age

The majority sector of subjects in this survey were 18 and 19 years of age. The age range included 18 and below, through 25 and above. In Table 5, the preferences are tabulated according to the lower and higher age intervals.

For the most part, a considerable difference exists between the food preferences of the 18 year-old and 25 year-old subjects. The foods disliked by these two groups were comparable to those of the previously discussed variables. The older group, however, prefers many of the foods to a greater degree than the younger students. Interestingly, these two differences were noted as being unique to the 25 year olds: (1) The acceptance of milk decreased considerably, (2) The acceptance of liver and chitterlings is considerably better than any other group in the survey.

## Food Likes and Dislikes According to Level of Income of Subjects

Only 290 of 352 subjects ( 82 per cent) responded to the questionnaire item regarding level of income. Even though the students were assured that their identity would remain confidential, it is believed that the low response was due to the personal nature of this questionnaire item. The majority of those who did respend, reported their gross income to be in the " $\$ 5,000$ to $\$ 9,999$ " bracket.

In general, the foods extremely disliked were the same at each of the four income intervals. See Table 6. The same items that were predominantly disliked in comparison with other variables which have

TABLE 5 Food likes and dislikes of subjects according to age

| FOOD ITEM | LIKES VERY MUCH |  | DISLIKES 18 Yrs. | VERY MUCH 25 Yrs. |
| :---: | :---: | :---: | :---: | :---: |
|  | \% | \% | $\%$ | \% |
| Steak in Tomato Sauce | 17.5 | 30.0 | 8.8 | 0.0 |
| Stuffed Green Peppers | 8.8 | 30.0 | 21.1 | 10.0 |
| Chicken Fried Steak | 29.8 | 40.0 | 8.8 | 10.0 |
| Roast Beef w/Natural Gravy | 33.3 | 50.0 | 7.0 | 10.0 |
| Meat Loaf | 26.3 | 50.0 | 5.3 | 10.0 |
| Chopped Steak | 24.6 | 40.0 | 5.3 | 10.0 |
| Meat Balls w/Spaghetti | 31.6 | 30.0 | 5.3 | 20.0 |
| Grilled Steak | 36.8 | 40.0 | 3.5 | 10.0 |
| Beef Stroganoff w/Noodles | 19.3 | 30.0 | 10.5 | 20.0 |
| Smothered Liver w/Onions | 22.8 | 30.0 | 21.1 | 10.0 |
| Beef Stew w/Vegetables | 22.8 | 40.0 | 17.5 | 0.0 |
| Chitterlings | 24.6 | 40.0 | 40.3 | 10.0 |
| Baked Cured Ham | 38.6 | 60.0 | 7.0 | 10.0 |
| Fresh Roast Pork | 28.1 | 70.0 | 5.3 | 10.0 |
| Grilled Pork | 24.6 | 70.0 | 5.3 | 10.0 |
| Barbequed Spare Ribs | 40.4 | 80.0 | 5.3 | 0.0 |
| Ham Hocks w/Pinto Beans | 24.6 | 60.0 | 17.5 | 10.0 |
| Grilled Polish Sausage | 17.5 | 60.0 | 8.8 | 10.0 |
| Breakfast Bacon | 36.8 | 60.0 | 5.3 | 0.0 |
| Link Sausage | 31.6 | 60.0 | 7.0 | 0.0 |
| Fried Ham | 33.3 | 70.0 | 8.8 | 0.0 |
| Ham and Macaroni w/Cheese | 28.1 | 30.0 | 14.0 | 20.0 |
| Scrambled Eggs | 36.8 | 50.0 | 8.8 | 30.0 |
| Fried Eggs | 26.3 | 60.0 | 12.3 | 20.0 |
| Fried Chicken | 54.4 | 80.0 | 3.5 | 0.0 |
| Baked Chicken | 38.6 | 80.0 | 5.3 | 10.0 |
| Barbequed Chicken | 49.1 | 80.0 | 5.3 | 0.0 |
| Chicken a'la King | 26.3 | 40.0 | 7.0 | 10.0 |
| Chicken Pot Pie | 29.8 | 30.0 | 15.8 | 10.0 |
| Baked Turkey w/Dressing | 40.3 | 70.0 | 5.3 | 0.0 |
| Chicken \& Noodle Casserole | 28.1 | 20.0 | 7.0 | 10.0 |
| Creamed Turkey | 24.6 | 40.0 | 12.3 | 0.0 |
| Tunafish Croquettes | 21.0 | 40.0 | 10.5 | 20.0 |
| Salmon Croquettes | 19.3 | 50.0 | 15.8 | 10.0 |
| Tuna-Noodle Casserole | 28.1 | 30.0 | 14.0 | 20.0 |
| Fried Catfish | 33.3 | 40.0 | 15.8 | 20.0 |

TABLE 5 (Continued)

| FOOD ITEM | LIKES VERY MUCH |  | DISLIKES VERY MUCH 18 Yrs. 25 Yrs. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | \% | \% | $\%$ | \% |
| Fried Shrimp | 50.9 | 60.0 | 5.3 | 10.0 |
| Fried Fish Sticks | 45.6 | 60.0 | 7.0 | 10.0 |
| Tunafish Salad | 38.6 | 50.0 | 7.0 | 0.0 |
| Assorted Cold Cuts | 36.8 | 40.0 | 10.5 | 0.0 |
| Sloppy-Joe Burger on Bun | 42.1 | 50.0 | 8.7 | 10.0 |
| Submarine Sandwich | 24.6 | 10.0 | 8.7 | 20.0 |
| Hamburger on Bun | 42.1 | 60.0 | 7.0 | 0.0 |
| Grilled Ham and Cheese Sand. | 54.4 | 30.0 | 5.3 | 20.0 |
| Barbequed Beef on Bun | 45.6 | 70.0 | 7.0 | 0.0 |
| Hot Roast Beef Sandwich | 47.4 | 60.0 | 3.5 | 0.0 |
| Boiled Navy Beans | 17.5 | 40.0 | 17.5 | 20.0 |
| Blackeyed Peas | 21.0 | 40.0 | 17.5 | 20.0 |
| Baked Beans | 38.6 | 50.0 | 7.0 | 10.0 |
| Chili Beans | 40.3 | 50.0 | 8.8 | 10.0 |
| Scalloped Potatoes | 21.0 | 40.0 | 19.3 | 30.0 |
| Mashed Potatoes | 31.6 | 60.0 | 8.8 | 10.0 |
| Creamed Potatoes | 29.8 | 40.0 | 17.5 | 10.0 |
| French Fries | 50.9 | 60.0 | 5.3 | 0.0 |
| Candied Yams | 36.8 | 70.0 | 10.5 | 0.0 |
| Green Beans w/Ham or Bacon | 38.6 | 60.0 | 8.8 | 0.0 |
| Green Peas w/Ham or Bacon | 26.3 | 40.0 | 8.8 | 10.0 |
| Buttered Peas | 26.3 | 40.0 | 10.5 | 0.0 |
| Buttered Broccoli | 17.5 | 40.0 | 17.5 | 10.0 |
| Cream Style Corn | 36.8 | 40.0 | 5.3 | 0.0 |
| Buttered Whole Kernel Corn | 42.1 | 60.0 | 1.7 | 0.0 |
| Buttered Spinach | 29.8 | 50.0 | 21.5 | 20.0 |
| Creamed Spinach | 22.8 | 30.0 | 22.8 | 30.0 |
| Buttered Brussel Sprouts | 10.5 | 40.0 | 29.8 | 20.0 |
| Buttered Chopped Cabbage | 17.5 | 60.0 | 15.8 | 10.0 |
| Boiled Cabbage Wedges | 14.0 | 70.0 | 14.0 | 20.0 |
| Collard Greens | 28.1 | 50.0 | 12.3 | 10.0 |
| Buttered Turnip Greens | 21.1 | 40.0 | 17.5 | 0.0 |
| Stewed Tomatoes and Okra | 14.0 | 40.0 | 29.8 | 20.0 |
| Sliced Fresh Tomatoes | 35.1 | 70.0 | 10.5 | 10.0 |
| Scalloped Tomatoes and Corn | 15.8 | 10.0 | 21.0 | 30.0 |
| Stewed Tomatoes | 14.0 | 10.0 | 33.3 | 20.0 |

TABLE 5 (Continued)

| FOOD ITEM | $\begin{aligned} & \text { LIKES } \\ & 18 \mathrm{Yrs.} \end{aligned}$ | VERY MUCH 25 Yrs . | DISLIKES <br> 18 Yrs. | VERY MUCH 25 Yrs. |
| :---: | :---: | :---: | :---: | :---: |
|  | \% | \% | \% | \% |
| Breaded Tomatoes | 14.0 | 10.0 | 21.0 | 20.0 |
| Glazed Carrots | 19.3 | 20.0 | 24.6 | 10.0 |
| Peas and Carrots | 21.0 | 30.0 | 19.3 | 10.0 |
| Harvard Beets | 17.5 | 20.0 | 22.8 | 20.0 |
| Cauliflower w/Cheese Sauce | 8.8 | 20.0 | 29.8 | 40.0 |
| Mixed Vegetables | 17.5 | 30.0 | 17.5 | 10.0 |
| Yellow Summer Squash | 8.8 | 30.0 | 26.3 | 10.0 |
| Corn and Lima Beans | 12.3 | 30.0 | 28.1 | 10.0 |
| Buttered Green Lima Beans | 14.0 | 30.0 | 21.0 | 10.0 |
| Jello Salad w/Fruit | 40.4 | 50.0 | 5.3 | 10.0 |
| Apple_Celery Salad | 29.8 | 30.0 | 5.3 | 0.0 |
| Cottage Cheese w/Fruit | 26.3 | 30.0 | 12.3 | 20.0 |
| Cottage Cheese w/Tomato | 12.3 | 20.0 | 19.3 | 20.0 |
| Cabbage Slaw | 21.0 | 70.0 | 14.0 | 0.0 |
| Sliced Tomatoes and Onions | 24.6 | 40.0 | 17.5 | 10.0 |
| Carrot and Raisin Salad | 22.8 | 40.0 | 17.5 | 10.0 |
| Relish Tray | 22.8 | 50.0 | 12.3 | 0.0 |
| Tossed Green Salad | 31.6 | 60.0 | 5.3 | 0.0 |
| Macaroni Salad | 14.0 | 20.0 | 17.5 | 20.0 |
| Chilled Potato Salad | 33.3 | 40.0 | 8.8 | 10.0 |
| Hot Potato Salad | 24.6 | 30.0 | 21.0 | 10.0 |
| Pancakes | 61.4 | 50.0 | 3.5 | 30.0 |
| Dry Cereal (Assorted) | 43.9 | 60.0 | 1.7 | 20.0 |
| Oatmeal | 31.6 | 40.0 | 7.0 | 30.0 |
| Cream of Wheat | 35.1 | 50.0 | 12.3 | 20.0 |
| Macaroni and Cheese | 40.3 | 60.0 | 3.5 | 20.0 |
| Steamed Rice | 31.6 | 60.0 | 7.0 | 20.0 |
| Buttered Noodles | 28.1 | 30.0 | 7.0 | 20.0 |
| Hot Rolls | 73.7 | 80.0 | 1.7 | 0.0 |
| Toast | 59.6 | 80.0 | 1.7 | 0.0 |
| Corn Bread | 40.3 | 70.0 | 8.8 | 0.0 |
| Sliced White Bread | 50.9 | 60.0 | 1.7 | 10.0 |
| Hot Biscuits | 54.4 | 70.0 | 1.7 | 0.0 |
| Sweet Rolls | 66.7 | 70.0 | 1.7 | 0.0 |
| Fresh Oranges | 66.7 | 90.0 | 1.7 | 0.0 |
| Fresh Bananas | 56.1 | 90.0 | 7.0 | 0.0 |

TABLE 5 (Continued)

| FOOD ITEM | $\begin{aligned} & \text { LIKES } \\ & 18 \text { Yrs. } \end{aligned}$ | VERY MUCH 25 Yrs. | DISLIKES <br> 18 Yrs. | VERY MUCH 25 Yrs. |
| :---: | :---: | :---: | :---: | :---: |
|  | \% | \% | \% | \% |
| Fresh Apples | 64.9 | 90.0 | 3.5 | 0.0 |
| Canned Pineapple | 49.1 | 80.0 | 1.7 | 10.0 |
| Stewed Prunes | 21.0 | 60.0 | 22.8 | 0.0 |
| Canned Purple Plums | 22.8 | 60.0 | 17.5 | 10.0 |
| Canned Peaches | 47.4 | 90.0 | 7.0 | 0.0 |
| Applesauce | 43.9 | 40.0 | 3.5 | 0.0 |
| Canned Apricots | 22.8 | 40.0 | 15.8 | 0.0 |
| Fruit Cocktail | 57.9 | 80.0 | 3.5 | 0.0 |
| Orange Juice | 57.9 | 80.0 | 1.7 | 0.0 |
| Vegetable (V-8) Juice | 24.6 | 50.0 | 15.8 | 0.0 |
| Grapefruit Juice | 43.9 | 70.0 | 1.7 | 0.0 |
| Cherry Cobbler | 45.6 | 80.0 | 5.3 | 0.0 |
| Peach Cobbler | 45.6 | 70.0 | 5.3 | 0.0 |
| Cream Pie | 43.9 | 50.0 | 12.3 | 0.0 |
| Sweet Potato Pie | 45.6 | 80.0 | 8.8 | 0.0 |
| Lemon Meringue Pie | 45.6 | 70.0 | 5.3 | 0.0 |
| Apple Pie | 56.1 | 70.1 | 1.7 | 0.0 |
| Apple Crisp | 45.6 | 50.0 | 5.3 | 0.0 |
| Ice Cream | 71.9 | 70.0 | 0.0 | 0.0 |
| Cake Squares w/Icing | 45.6 | 60.0 | 1.7 | 0.0 |
| Pineapple Upside-Down Cake | 47.4 | 70.0 | 7.0 | 0.0 |
| Cherry Short Cake | 40.3 | 60.0 | 7.0 | 10.0 |
| Cheese Cake | 33.3 | 40.0 | 8.8 | 10.0 |
| Gingerbread w/Applesauce | 28.1 | 60.0 | 8.8 | 0.0 |
| Vanilla Pudding | 36.8 | 60.0 | 15.8 | 0.0 |
| Bread Pudding w/Fruit Sauce | 24.6 | 20.0 | 15.8 | 20.0 |
| Rice and Fruit Pudding | 22.8 | 30.0 | 14.0 | 10.0 |
| Chocolate Pudding w/Coconut | 29.8 | 40.0 | 19.3 | 30.0 |
| Hot Chocolate | 45.6 | 50.0 | 3.5 | 10.0 |
| Milk | 66.7 | 60.0 | 1.7 | 20.0 |
| Iced Tea | 42.1 | 90.0 | 7.0 | 0.0 |
| Coffee | 38.6 | 40.0 | 15.8 | 10.0 |
| Punch | 45.6 | 70.0 | 5.3 | 10.0 |
| Buttermilk | 31.6 | 20.0 | 15.8 | 30.0 |

TABLE 6 Food likes and dislikes according to level of income of subjects


TABLE 6 (Continued)


TABLE 6 (Continued)


TABLE 5 (Continued)


TABIE 6 (Continued)


TABLE 6 (Continued)

been discussed are those most disliked by subjects from the different income levels. By degree of comparison between the income groups, the immensely disliked foods of subjects from the "under \$3,000"
bracket and the "\$10,000 and above" bracket are relatively parallel in intensity. The subjects from the two lower levels of income showed a higher preference for more foods than did either of the two groups from the higher income levels. More than one-half of the poultry items, including eggs, are very well liked by the subjects in the "\$3,000 _ \$4,999" income interval. As the poultry items were used in combination dishes the preferences of these subjects for these foods dropped overwhelmingly. This same group had a stronger dislike for fish items than did either of the other income groups. Breads and cereals, fruits, desserts, milk and milk products except buttermilk were high favorites for each of the four income intervals included in this study.

Food Likes and Dislikes of Subjects According to Education of Their Parents

## Father or Male Guardian

The food likes and dislikes of the survey population are strikingly similar when compared to each educational level attained by the father or male guardian. See Table 7. Ten per cent or more of the subjects whose fathers had a grade school education scored 55 of 142 food items as "dislike very much;" those from the high school category - 53 items; those from the college interval - 64 items; and those at the graduate level - 62 items.

Their preferences are largely limited to the same classes of foods as those of the other groups in the entire survey. Three vegetables, buttered brussel sprouts, cauliflower with cheese sauce, and yellow summer squash were disliked by more than 25 per cent at

TABLE Food likes and dislikes of subjects according to education of father or male guardian

| FOOD ITEM | $\begin{aligned} & \text { LIKES } \\ & \text { Gr. High } \\ & \text { Sch. Sch. } \end{aligned}$ |  | VERY M College | UCH <br> Grad. | DISL Gr. Sch. |  | VERY M College | Grad. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% | \% | \% | \% | \% | \% | \% | \% |
| Steak in Tomato Sauce | 25.5 | 21.7 | 17.6 | 28.1 | 9.8 | 6.5 | 9.5 | 9.4 |
| Stuffed Green Peppers | 19.6 | 18.8 | 14.9 | 15.6 | 21.6 | 16.0 | 14.9 | 12.5 |
| Chicken Fried Steak | 29.4 | 35.5 | 25.7 | 34.4 | 9.8 | 7.3 | 6.8 | 12.5 |
| Roast Beef w/Natural.Gr. | 39.2 | 39.9 | 31.1 | 43.8 | 3.9 | 6.5 | 8.1 | 12.5 |
| Meat Loaf | 39.2 | 37.7 | 29.7 | 28.1 | 9.8 | 2.9 | 6.8 | 3.1 |
| Chopped Stieak | 31.4 | 34.8 | 17.6 | 28.1 | 3.9 | 4.4 | 10.8 | 6.3 |
| Meat Balls w/Spaghetti | 35.3 | 35.5 | 31.1 | 40.6 | 5.9 | 8.0 | 6.8 | 6.3 |
| Grilled Steak | 37.3 | 35.5 | 33.8 | 40.6 | 3.9 | 2.2 | 5.4 | 6.3 |
| Beef Stroganoff w/Noodles | 19.6 | 16,7 | 14.9 | 15.6 | 7.8 | 13.8 | 10.8 | 9.4 |
| Smothered Liver <br> w/Onions | 25.5 | 29.7 | 21.6 | 21.9 | 25.5 | 22.5 | 32.4 | 12.5 |
| Beef Stew w/Vegetables | 23.5 | 23.9 | 16.2 | 15.6 | 17.7 | 11.6 | 14.9 | 9.4 |
| Chitterlings | 35.3 | 27.5 | 23.0 | 34.4 | 39.2 | 27.5 | 39.2 | 12.5 |
| Baked Cured Ham | 41.2 | 37.0 | 35.1 | 43.8 | 5.9 | 3.6 | 1.4 | 9.4 |
| Fresh Roast Pork | 33.3 | 29.7 | 25.7 | 40.6 | 5.9 | 2.9 | 5.4 | 6.3 |
| Grilled Pork | 35.3 | 26.1 | 20.3 | 37.5 | 3.9 | 1.5 | 1.4 | 3.1 |
| Barbequed Spare Ribs | 52.9 | 50.0 | 46.0 | 68.8 | 9.8 | 3.6 | 2.7 | 6.3 |
| Ham Hocks w/Pinto Bns | 45.1 | 31.2 | 27.0 | 31.2 | 11.8 | 7.3 | 12.2 | 12.5 |
| Grilled Polish Sausage | 33.3 | 21.7 | 13.5 | 25.0 | 7.8 | 5.1 | 8.2 | 6.3 |
| Breakfast Bacon | 51.0 | 47.1 | 41.9 | 50.0 | 5.8 | 3.6 | 2.7 | 9.4 |
| Link Sausage | 55.0 | 37.7 | 32.4 | 40.6 | 9.8 | 2.9 | 6.8 | 9.4 |
| Fried Ham | 45.0 | 41.3 | 36.5 | 40.6 | 3.9 | 2.2 | 2.7 | 3.1 |
| Ham \& Macaroni w/Cheese | 31.2 | 30.4 | 21.6 | 31.3 | 9.8 | 6.5 | 17.6 | 15.6 |
| Scrambled Eggs | 47.1 | 38.4 | 35.1 | 43.8 | 5.9 | 7.3 | 10.8 | 6.3 |
| Fried Eggs | 41.2 | 28.3 | 20.3 | 34.4 | 7.8 | 15.2 | 16.2 | 15.6 |
| Fried Chicken | 58.8 | 57.3 | 51.4 | 65.6 | 3.9 | 1.5 | 6.8 | 3.1 |
| Baked Chicken | 43.1 | 43.5 | 35.1 | 43.8 | 3.9 | 3.6 | 8.1 | 3.1 |
| Barbequed Chicken | 54.9 | 51.5 | 43.2 | 59.4 | 5.9 | 2.9 | 8.1 | 0.0 |
| Chicken a'la King | 25.5 | 21.0 | 27.0 | 31.3 | 3.9 | 6.5 | 8.1 | 15.6 |
| Chicken Pot Pie | 33.3 | 27.5 | 24.3 | 28.1 | 9.8 | 4.4 | 12.2 | 18.8 |
| Baked Turkey w/Drsng | 51.0 | 44.2 | 35.1 | 37.5 | 7.8 | 3.6 | 5.4 | 6.3 |
| Chicken \& Noodle Casserole | 39.4 | 24.6 | 18.9 | 31.3 | 9.8 | 4.4 | 9.5 | 12.5 |
| Creamed Turkey | 21.6 | 21.7 | 22.8 | 28.1 | 7.8 | 4.4 | 13.5 | 15.6 |

TABLE 7 (Continued)

| FOOD ITEM | LIKES VERY MUCH |  |  |  | DISLIKES VERY MUCH |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gr. Sch. | High <br> Sch | College | Grad. | Gr. Sch. | High Sch. | Col- <br> lege | Grad. |
|  | \% | \% | \% | \% | \% | \% | \% | \% |
| Tunafish Croquettes | 21.6 | 22.5 | 13.5 | 18.8 | 15.7 | 11.6 | 17.6 | 9.4 |
| Salmon Croquettes | 21.6 | 19.6 | 12.2 | 18.8 | 13.7 | 12.3 | 17.6 | 15.6 |
| Tuna-Noodle Casserole | 25.5 | 18.8 | 14.9 | 25.0 | 7.8 | 8.7 | 20.3 | 9.4 |
| Fried Catfish | 33.3 | 29.7 | 21.6 | 34.4 | 3.9 | 10.1 | 12.2 | 12.5 |
| Fried Shrimp | 41.2 | 42.8 | 43.2 | 56.3 | 17.7 | 10.9 | 6.8 | 12.5 |
| Fried Fish Sticks | 39.2 | 41.3 | 35.1 | 40.6 | 13.7 | 6.5 | 8.1 | 12.5 |
| Tunafish Salad | 33.3 | 32.6 | 28.4 | 37.5 | 9.8 | 5.1 | 5.4 | 3.1 |
| Assorted Cold Cuts | 25.5 | 22.5 | 29.7 | 34.4 | 9.8 | 12.3 | 10.8 | 3.1 |
| Sloppy-Joe Burger on Bun | 27.5 | 34.8 | 31.1 | 40.6 | 5.9 | 7.3 | 9.5 | 6.3 |
| Submarine Sandwich | 21.6 | 21.0 | 21.6 | 25.0 | 9.8 | 5.8 | 4.1 | 6.3 |
| Hamburger on Bun | 37.3 | 41.3 | 40.5 | 50.0 | 5.9 | 2.9 | 8.1 | 3.1 |
| Grilled Ham and Cheese Sand. | 37.3 | 47.8 | 41.9 | 46.9 | 3.9 | 2.2 | 8.1 | 3.1 |
| Barbequed Beef on Bun | 39.2 | 43.5 | 40.5 | 53.1 | 13.7 | 2.9 | 9.5 | 6.3 |
| Hot Roast Beef Sandwich | 33.3 | 33.3 | 41.9 | 46.9 | 3.9 | 2.2 | 6.8 | 6.3 |
| Boiled Navy Beans | 19.6 | 17.4 | 16.2 | 28.1 | 23.5 | 12.3 | 16.2 | 15.6 |
| Blackeyed Peas | 27.5 | 23.2 | 21.6 | 31.3 | 11.8 | 11.6 | 16.2 | 18.8 |
| Baked Beans | 33.3 | 39.1 | 31.1 | 43.8 | 9.8 | 2.9 | 8.1 | 6.3 |
| Chili Beans | 41.2 | 39.1 | 32.4 | 40.6 | 9.8 | 3.6 | 9.5 | 6.3 |
| Scalloped Potatoes | 17.7 | 18.8 | 17.6 | 31.3 | 19.6 | 11.6 | 9.5 | 15.6 |
| Mashed Potatoes | 37.3 | 33.3 | 28.4 | 40.6 | 9.8 | 5.1 | 9.5 | 6.3 |
| Creamed Potatoes | 35.3 | 29.0 | 25.7 | 34.4 | 11.8 | 5.1 | 8.1 | 12.5 |
| French Fries | 53.0 | 54.4 | 50.0 | 56.3 | 3.9 | 1.5 | 5.4 | 3.1 |
| Candied Yams | 53.0 | 37.0 | 35.1 | 37.5 | 9.8 | 7.3 | 10.8 | 12.5 |
| Green Beans w/Ham or Bacon | 43.1 | 32.6 | 35.1 | 40.6 | 7.8 | 4.4 | 9.5 | 6.3 |
| Green Peas w/Ham or Bacon | 33.3 | 28.3 | 25.7 | 28.1 | 7.8 | 4.4 | 10.8 | 3.1 |
| Buttered Peas | 39.2 | 26.8 | 32.4 | 40.6 | 5.9 | 5.1 | 13.5 | 6.3 |
| Buttered Broccoli | 19.6 | 20.3 | 18.9 | 25.0 | 25.5 | 21.7 | 20.3 | 9.4 |
| Cream Style Corn | 45.1 | 37.7 | 40.5 | 50.0 | 5.9 | 2.9 | 5.4 | 3.1 |
| Buttered Whole Kernel Corn | 53.0 | 40.6 | 41.9 | 50.0 | 2.0 | 2.2 | 6.8 | 3.1 |
| Buttered Spinach | 25.5 | 26.1 | 25.7 | 37.5 | 21.6 | 15.9 | 21.6 | 15.6 |
| Creamed Spinach | 23.5 | 19.6 | 20.3 | 34.4 | 23.5 | 17.4 | 25.7 | 15.6 |
| Buttered Brussel Sprouts | 11.8 | 11.6 | 12.2 | 15.6 | 37.3 | 29.7 | 27.0 | 25.0 |

TABLE 7 (Continued)

| FOOD ITEM | LIKES VERY MUCH |  |  |  | DISLIKES VERY MUCH |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gr. | High | Col- |  | Gr. | High | Col- |  |
|  | Sch. | Sch. | lege | Grad. | Sch. | Sch. | lege | Grad. |
|  | \% | $\%$ | \% | \% | \% | \% | \% | \% |
| Buttered Chopped Cabbage | 23.5 | 24.6 | 25.7 | 28.1 | 13.7 | 13.8 | 14.9 | 12.5 |
| Boiled Cabbage Wedges | 17.7 | 20.3 | 17.6 | 25.0 | 17.7 | 13.0 | 13.5 | 18.8 |
| Collard Greens | 29.4 | 26.8 | 25.7 | 34.4 | 11.8 | 15.2 | 9.5 | 18.8 |
| Buttered Turnip Grns | 25.5 | 23.9 | 17.3 | 29.0 | 15.7 | 14.5 | 17.3 | 22.6 |
| Stewed Tomatoes and Okra | 27.5 | 16.7 | 13.3 | 25.8 | 13.7 | 25.4 | 30.7 | 29.0 |
| Sliced Fresh Tomatoes | 41.2 | 35.5 | 38.7 | 38.7 | 11.8 | 9.4 | 13.3 | 12.9 |
| Scalloped Tomatoes and Corn | 19.6 | 12.3 | 12.0 | 16.1 | 21.6 | 15.9 | 22.7 | 19.4 |
| Stewed Tomatoes | 19.6 | 10.1 | 10.7 | 22.6 | 21.6 | 28.3 | 28.0 | 19.4 |
| Breaded Tomatoes | 13.7 | 9.4 | 12.0 | 6.5 | 19.6 | 18.8 | 21.3 | 16.1 |
| Glazed Carrots | 17.7 | 14.5 | 18.7 | 9.7 | 21.6 | 21.1 | 16.0 | 22.6 |
| Peas and Carrots | 13.7 | 24.6 | 14.7 | 16.1 | 19.6 | 13.7 | 21.3 | 22.6 |
| Harvard Beets | 25.5 | 13.0 | 24.0 | 19.4 | 27.5 | 18.8 | 18.7 | 22.6 |
| Cauliflower w/Cheese Sauce | 17.7 | 7.3 | 13.3 | 6.5 | 37.3 | 32.6 | 30.7 | 32.3 |
| Mixed Vegetables | 21.6 | 18.1 | 25.3 | 22.6 | 21.6 | 13.8 | 16.0 | 25.8 |
| Yellow Summer Squash | 11.8 | 8.0 | 10.7 | 9.7 | 37.3 | 37.0 | 29.3 | 45.2 |
| Corn and Lima Beans | 17.7 | 9.4 | 13.3 | 22.6 | 25.5 | 18.1 | 24.0 | 22.6 |
| Buttered Green Lima Bns | 17.7 | 13.8 | 12.0 | 19.4 | 27.5 | 18.1 | 24.0 | 16.1 |
| Jello Salad w/Fruit | 49.0 | 34.8 | 41.3 | 38.7 | 2.0 | 5.8 | 13.3 | 9.7 |
| Apple-Celery Salad | 29.4 | 23.9 | 26.7 | 29.0 | 11.8 | 16.5 | 10.7 | 6.5 |
| Cottage Cheese w/Fruit | 35.3 | 29.0 | 26.7 | 16.1 | 17.7 | 18.8 | 21.3 | 29.0 |
| Cottage Cheese w/ Tomato | 15.7 | 10.9 | 14.7 | 6.5 | 19.6 | 23.2 | 22.7 | 35.5 |
| Cabbage Slaw | 29.4 | 25.4 | 29.3 | 29.0 | 13.7 | 13.0 | 9.3 | 22.6 |
| Sliced Tomatoes and Onions | 21.6 | . 18.8 | 25.3 | 25.8 | 21.6 | 16.7 | 14.7 | 12.9 |
| Carrot \& Raisin Salad | 19.6 | 14.5 | 20.0 | 19.4 | 23.5 | 18.1 | 14.7 | 29.0 |
| Relish Tray | 17.7 | 15.2 | 41.3 | 22.6 | 21.6 | 13.8 | 8.0 | 19.4 |
| Tossed Green Salad | 35.3 | 36.2 | 21.3 | 38.7 | 9.8 | 4.4 | 5.3 | 9.7 |
| Macaroni Salad | 23.5 | 20.3 | 40.0 | 25.8 | 11.8 | 9.4 | 12.0 | 6.5 |
| Chilled Potato Salad | 31.4 | 38.4 | 40.0 | 38.7 | 9.8 | 5.1 | 8.0 | 6.5 |
| Hot Potato Salad | 21.6 | 24.6 | 30.7 | 12.9 | 13.7 | 12.3 | 18.7 | 19.4 |
| Pancakes | 58.8 | 64.5 | 56.0 | 58.1 | 5.9 | 2.9 | 6.7 | 6.5 |
| Dry Cereal (Asstd) | 45.1 | 43.5 | 41.3 | 41.9 | 3.9 | 2.9 | 4.0 | 9.7 |
| Oatmeal | 31.4 | 32.6 | 28.0 | 32.3 | 5.9 | 10.9 | 12.0 | 19.4 |

TABLE 7 (Continued)

| FOOD ITEM | LIKES VERY MUCH |  |  |  | DISLIKES VERY MUCH |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gr. | High | Col- |  | Gr. | High | Col- |  |
|  | Sch. | Sch. | lege | Grad. | Sch. | Sch. | lege | Grad. |
|  | \% | \% | \% | \% | \% | \% | \% | \% |
| Cream of Wheat | 27.5 | 30.4 | 32.0 | 32.3 | 13.7 | 15.2 | 9.3 | 19.4 |
| Macaroni \& Cheese | 41.2 | 47.8 | 36.0 | 38.7 | 5.9 | 2.2 | 10.7 | 12.9 |
| Steamed Rice | 25.5 | 31.2 | 32.0 | 32.3 | 11.7 | 5.1 | 13.3 | 16.1 |
| Buttered Noodles | 23.5 | 23.2 | 20.0 | 25.8 | 9.8 | 9.4 | 13.3 | 12.9 |
| Hot Rells | 66.7 | 71.0 | 65.3 | 64.5 | 3.9 | 1.5 | 5.3 | 6.5 |
| Toast | 62.8 | 67.4 | 64.0 | 51.6 | 2.0 | 0.0 | 2.7 | 6.5 |
| Corn Bread | 54.9 | 54.4 | 50.7 | 38.7 | 5.9 | 5.8 | 6.7 | 9.7 |
| Sliced White Bread | 54.9 | 49.3 | 52.0 | 48.4 | 3.9 | 2.2 | 4.0 | 3.2 |
| Hot Biscuits | 58.8 | 65.2 | 60.0 | 51.6 | 9.8 | 0.0 | 1.3 | 3.2 |
| Sweet Rolls | 66.7 | 66.0 | 62.7 | 45.2 | 2.0 | 1.5 | 1.3 | 3.2 |
| Fresh Oranges | 76.5 | 68.8 | 66.7 | 48.4 | 2.0 | 2.2 | 2.7 | 9.7 |
| Fresh Bananas | 66.7 | 63.8 | 60.0 | 38.7 | 2.0 | 5.1 | 5.3 | 3.2 |
| Fresh Apples | 76.5 | 68.1 | 58.7 | 51.6 | 2.0 | 2.2 | 6.7 | 9.7 |
| Canned Pineapple | 51.0 | 57.3 | 53.3 | 51.6 | 2.0 | 4.4 | 1.3 | 3.2 |
| Stewed Prunes | 23.5 | 17.4 | 20.0 | 19.4 | 15.7 | 20.3 | 21.3 | 25.8 |
| Canned Purple Plums | 27.5 | 23.9 | 26.7 | 19.4 | 11.8 | 17.4 | 14.7 | 12.9 |
| Canned Peaches | 56.9 | 51.5 | 45.3 | 32.3 | 3.9 | 6.5 | 4.0 | 6.5 |
| Applesauce | 43.1 | 42.0 | 42.7 | 38.7 | 9.8 | 4.4 | 4.0 | 9.7 |
| Canned Apricots | 33.3 | 21.7 | 26.7 | 19.4 | 11.8 | 13.8 | 13.3 | 19.4 |
| Fruit Cocktail | 68.6 | 63.0 | 57.3 | 58.1 | 0.0 | 1.5 | 8.0 | 3.2 |
| Orange Juice | 70.6 | 73.2 | 60.0 | 51.6 | 2.0 | 0.7 | 2.7 | 6.5 |
| Vegetable (V-8) Juice | 47.1 | 26.1 | 32.0 | 29.0 | 7.8 | 13.8 | 14.7 | 16.1 |
| Grapefruit Juice | 56.9 | 44.2 | 41.3 | 45.2 | 9.8 | 8.0 | 6.7 | 6.5 |
| Cherry Cobbler | 56.9 | 59.4 | 52.0 | 61.3 | 11.7 | 5.8 | 2.7 | 3.2 |
| Peach Cobbler | 66.7 | 60.9 | 52.0 | 54.8 | 5.9 | 5.1 | 2.7 | 6.5 |
| Cream Pie | 49.0 | 49.3 | 42.7 | 45.2 | 13.7 | 5.1 | 9.3 | 9.7 |
| Sweet Potato Pie | 54.9 | 55.8 | 49.3 | 51.6 | 5.9 | 5.8 | 6.7 | 9.7 |
| Lemon Meringue Pie | 53.0 | 59.4 | 50.7 | 51.6 | 9.8 | 3.6 | 0.0 | 9.7 |
| Apple Pie | 68.6 | 55.8 | 54.7 | 54.8 | 5.9 | 5.1 | 4.0 | 9.7 |
| Apple Crisp | 53.0 | 44.9 | 46.7 | 45.2 | 5.9 | 4.4 | 5.3 | 12.9 |
| Ice Cream | 78.4 | 73.9 | 62.7 | 71.0 | 0.0 | 0.7 | 2.7 | 3.2 |
| Cake Squares w/Icing | 54.9 | 50.0 | 40.0 | 48.4 | 3.9 | 5.1 | 6.7 | 3.2 |
| Pineapple UpsideDown Cake | 56.9 | 50.7 | 48.0 | 42.0 | 2.0 | 5.8 | 6.7 | 3.2 |
| Cherry Short Cake | 45.1 | 44.9 | 49.3 | 38.7 | 5.9 | 7.3 | 12.0 | 3.2 |
| Cheese Cake | 41.2 | 31.9 | 34.7 | 25.8 | 11.8 | 12.3 | 6.7 | 6.5 |
| Gingerbread w/ Applesauce | 41.2 | 30.4 | 36.0 | 35.5 | 15.7 | 9.4 | 8.0 | 6.5 |

TABLE 7 (Continued)

| FOOD ITEM | LIKES VERY MUCH |  |  |  | DISLIKES |  | VERY MUCH |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gr . | High | Col- |  | Gr . | High | Col- |  |
|  | Sch. | Sch. | lege | Grad. | Sch. | Sch. | lege | Grad. |
|  | \% | \% | \% | \% | \% | \% | \% | \% |
| Vanilla Pudding | 35.3 | 35.5 | . 33.0 | 35.5 | 13.7 | 8.7 | 14.7 | 9.7 |
| Bread Pudding w/Fruit Sauce | 29.4 | 23.9 | 22.7 | 35.5 | 15.7 | 13.0 | 13.3 | 9.7 |
| Rice and Fruit Pudding | 27.5 | 13.0 | 20.0 | 32.3 | 15.7 | 13.0 | 16.0 | 12.9 |
| Chocolate Pudding <br> w/Coconut | 33.3 | 14.5 | 36.0 | 29.0 | 13.7 | 14.5 | 13.3 | 16.1 |
| Hot Chocolate | 52.9 | 0.0 | 50.7 | 42.0 | 3.9 | 0.0 | 5.3 | 3.2 |
| Milk | 80.4 | 4.4 | 68.0 | 54.8 | 0.0 | 4.4 | 4.0 | 9.7 |
| Iced Tea | 58.8 | 10.1 | 54.7 | 58.1 | 9.8 | 10.1 | 4.0 | 0.0 |
| Coffee | 41.2 | 16.7 | 46.7 | 32.3 | 15.7 | 16.7 | 6.7 | 16.1 |
| Punch | 64.7 | 3.6 | 52.0 | 42.0 | 7.8 | 3.6 | 8.0 | 6.5 |
| Buttermilk | 41.2 | 22.0 | 22.7 | 19.4 | 15.7 | 21.9 | 21.3 | 32.3 |

each of the four levels of education. Milk and milk products, particularly ice cream, were well liked by each sector, with one main exception: those students, whose fathers had a high school education, reported low preferences (on each end of the continuum) for milk and hot chocolate. This indicates that these foods are neither strongly liked or disliked by this segment of the population.

## Mother or Female Guardian

To a predominant degree, the categories of foods liked and disliked were similar among the students from each educational level attained by their female parent. See Table 8. To a large extent, their preferences were compatible with those of the other variables

TABLE 8 Food likes and dislikes of subjects according to education of mother or female guardian

| FOOD ITEM | LIKES VERY MUCH |  |  |  | DISLIKES |  | VERY MUCH |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | High | Col- |  | Gr . | High | Col |  |
|  | Sch. | Sch. | lege | Grad. | Sch. | Sch. | lege | Grad. |
|  | \% | \% | \% | \% | \% | \% | \% | \% |
| Steak in Tomato Sauce | 22.9 | 23.4 | 22.0 | 20.0 | 5.7 | 7.4 | 16.2 | 6.7 |
| Stuffed Green Peppers | 22.9 | 17.0 | 19.1 | 20.0 | 11.4 | 15.9 | 13.2 | 26.7 |
| Chicken Fried Steak | 40.0 | 32.4 | 30.9 | 30.0 | 8.6 | 9.0 | 5.9 | 13.3 |
| Roast Beef w/Natural Gravy | 34.3 | 38.8 | 38.2 | 36.7 | 2.9 | 7.4 | 8.8 | 10.0 |
| Meat Loaf | 22.9 | 38.8 | 36.8 | 26.7 | 8.6 | 6.4 | 4.4 | 3.3 |
| Chopped Steak | 25.7 | 34.0 | 23.5 | 20.0 | 5.7 | 5.8 | 8.8 | 3.3 |
| Meat Balls w/Spaghetti | 34.3 | 35.6 | 33.8 | 33.3 | 5.7 | 7.4 | 8.8 | 3.3 |
| Grilled Steak | 31.4 | 39.4 | 32.4 | 26.7 | 0.0 | 4.3 | 7.3 | 6.7 |
| Beef Stroganoff w/Noodles | 14.3 | 19.7 | 16.2 | 10.0 | 5.7 | 13.3 | 10.3 | 10.0 |
| Smothered Liver <br> w/Onions | 40.0 | 25.5 | 26.5 | 13.3 | 20.0 | 22.3 | 30.9 | 26.7 |
| Beef Stew w/Vegetables | 31.4 | 22.9 | 17.6 | 13.3 | 11.4 | 11.7 | 17.6 | 10.0 |
| Chitterlings | 40.0 | 28.2 | 23.5 | 43.3 | 40.0 | 28.7 | 29.4 | 30.0 |
| Baked Cured Ham | 40.0 | 37.2 | 36.8 | 33.3 | 2.9 | 4.8 | 5.9 | 3.3 |
| Fresh Roast Pork | 31.4 | 29.8 | 27.9 | 33.3 | 8.6 | 3.7 | 7.3 | 6.7 |
| Grilled Pork | 31.4 | 26.1 | 23.5 | 33.3 | 5.7 | 3.2 | 2.9 | 6.7 |
| Barbequed Spare Ribs | 48.6 | 51.1 | 48.5 | 53.3 | 5.7 | 5.3 | 5.9 | 6.7 |
| Ham Hocks w/Pinto Beans | 42.9 | 35.6 | 22.1 | 36.7 | 14.3 | 5.8 | 20.6 | 10.0 |
| Grilled Polish Sausage | 25.7 | 21.8 | 20.6 | 20.0 | 5.7 | 7.4 | 8.8 | 6.7 |
| Breakfast Bacon | 48.6 | 47.9 | 39.7 | 46.7 | 5.7 | 5.8 | 4.4 | 6.7 |
| Link Sausage | 42.9 | 40.4 | 32.3 | 36.7 | 5.7 | 7.4 | 5.9 | 10.0 |
| Fried Ham | 45.7 | 41.5 | 35.3 | 40.0 | 2.9 | 4.3 | 5.9 | 0.0 |
| Ham \& Macaroni w/Cheese | 28.6 | 30.3 | 26.5 | 23.3 | 5.7 | 10.1 | 14.7 | 16.7 |
| Scrambled Eggs | 31.4 | 43.6 | 35.3 | 40.0 | 5.7 | 9.0 | 5.9 | 13.3 |
| Fried Eggs | 22.9 | 31.4 | 23.5 | 30.0 | 2.9 | 15.9 | 19.1 | 20.0 |
| Fried Chicken | 60.0 | 55.8 | 54.4 | 56.7 | 0.0 | 4.8 | 5.9 | 3.3 |
| Baked Chicken | 40.0 | 42.5 | 33.8 | 36.7 | 0.0 | 6.4 | 8.8 | 3.3 |
| Barbequed Chicken | 57.1 | 50.5 | 48.5 | 46.7 | 0.0 | 5.8 | 8.8 | 0.0 |
| Chicken a'la King | 22.8 | 22.9 | 11.7 | 26.7 | 0.0 | 9.0 | 27.9 | 6.7 |
| Chicken Pot Pie | 34.3 | 27.6 | 13.2 | 20.0 | 8.6 | 10.6 | 26.5 | 10.0 |
| Baked Turkey w/ Dressing | 34.3 | 47.3 | 4.4 | 33.3 | 5.7 | 7.4 | 36.8 | 3.3 |
| Chicken \& Noodile Casserole | 22.9 | 28.2 | 10.3 | 30.0 | 8.6 | 8.0 | 20.6 | 6.7 |
| Creamed Turkey | 20.0 | 22.3 | 14.7 | 20.0 | 5.7 | 7.4 | 23.5 | 10.0 |

TABLE 8 (Continued)

| FOOD ITEM | LIKES VERY MUCH |  |  |  | DISLIKES VERY MUCH |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gr . | High | Col- |  | Gr . | High | Col- |  |
|  | Sch. | Sch. | lege | Grad. | Sch. | Sch. | lege | Grad. |
|  | \% | \% | \% | \% | \% | \% | \% | \% |
| Tunafish Croquettes | 17.2 | 21.3 | 14.7 | 16.7 | 17.1 | 12.2 | 16.2 | 20.0 |
| Salmon Croquettes | 17.2 | 21.3 | 16.2 | 13.3 | 20.0 | 11.7 | 14.7 | 20.0 |
| Tuna-Noodle Casserole | 17.2 | 21.3 | 13.2 | 20.0 | 8.6 | 11.7 | 17.6 | 16.7 |
| Fried Catfish | 22.9 | 30.8 | 13.2 | 23.3 | 14.3 | 8.5 | 30.9 | 13.3 |
| Fried Shrimp | 42.9 | 47.3 | 39.7 | 53.3 | 14.3 | 12.8 | 7.4 | 13.3 |
| Fried Fish Sticks | 45.7 | 42.0 | 35.3 | 26.7 | 14.3 | 8.0 | 7.4 | 13.3 |
| Tunafish Salad | 34.3 | 30.8 | 35.3 | 20.0 | 2.9 | 9.6 | 1.5 | 6.7 |
| Assorted Cold Cuts | 28.6 | 23.9 | 30.9 | 26.7 | 2.9 | 12.2 | 11.8 | 10.0 |
| Sloppy-Joe Burger on Bun | 25.7 | 33.5 | 38.2 | 20.0 | 5.7 | 8.5 | 8.8 | 10.0 |
| Submarine Sandwich | 25.7 | 20.2 | 23.5 | 22.3 | 8.6 | 6.9 | 5.9 | 3.3 |
| Hamburger On Bun | 37.1 | 40.4 | 47.1 | 50.0 | 2.9 | 6.4 | 4.4 | 3.3 |
| Grilled Ham and Cheese Sand. | 42.9 | 46.8 | 36.8 | 46.7 | 0.0 | 5.8 | 2.9 | 6.7 |
| Barbequed Beef on Bun | 40.0 | 42.5 | 47.1 | 46.7 | 5.7 | 6.9 | 7.3 | 10.0 |
| Hot Roast Beef Sand. | . 31.4 | 37.8 | 41.2 | 33.3 | 5.7 | 4.3 | 5.9 | 6.7 |
| Boiled Navy Beans | 22.9 | 20.7 | 17.7 | 13.3 | 20.0 | 14.4 | 16.2 | 20.0 |
| Blackeyed Peas | 25.7 | 27.1 | 20.6 | 23.3 | 11.4 | 11.7 | 19.1 | 16.7 |
| Baked Beans | 34.3 | 38.8 | 30.9 | 33.3 | 8.6 | 5.8 | 4.4 | 10.0 |
| Chili Beans | 34.3 | 43.6 | 32.4 | 36.7 | 17.1 | 4.3 | 5.9 | 10.0 |
| Scalloped Potatoes | 20.0 | 22.3 | 11.8 | 26.7 | 8.6 | 11.2 | 16.2 | 20.0 |
| Mashed Potatoes | 37.1 | 36.7 | 26.5 | 33.3 | 0.0 | 8.5 | 2.9 | 16.7 |
| Creamed Potatoes | 31.6 | 31.9 | 26.5 | 30.0 | 5.7 | 8.0 | 10.3 | 13.5 |
| French Fries | 45.7 | 55.8 | 45.6 | 53.3 | 5.7 | 4.3 | 2.9 | 3.3 |
| Candied Yams | 42.8 | 39.9 | 32.3 | 36.6 | 2.9 | 9.0 | 11.8 | 13.3 |
| Green Beans w/Ham or Bacon | 42.8 | 38.3 | 36.8 | 26.7 | 0.0 | 6.9 | 8.8 | 13.3 |
| Green Peas w/Ham or Bacon | 28.6 | 30.3 | 27.9 | 16.7 | 5.7 | 6.9 | 11.8 | 10.0 |
| Buttered Peas | 31.4 | 30.3 | 30.9 | 36.7 | 8.6 | 6.9 | 13.2 | 6.8 |
| Buttered Broccoli | 25.7 | 23.4 | 16.2 | 13.3 | 20.0 | 19.7 | 20.6 | 23.3 |
| Cream Style Corn | 48.6 | 40.4 | 39.7 | 43.3 | 2.9 | 5.8 | 1.5 | 3.3 |
| Buttered Whole Kernel Corn | 48.6 | 47.3 | 33.8 | 50.0 | 2.9 | 4.8 | 2.9 | 6.6 |
| Buttered Spinach | 28.6 | 30.8 | 19.1 | 26.7 | 14.3 | 16.5 | 20.6 | 20.0 |
| Creamed Spinach | 17.1 | 25.5 | 16.2 | 20.0 | 20.0 | 17.5 | 25.0 | 20.0 |
| Buttered Brussel | 11.4 | 14.4 | 13.2 | 3.3 | 25.7 | 25.5 | 30.9 | 43.3 |

TABLE 8 (Continued)

| FOOD ITEM | LIKES VERY MUCH |  |  |  | DISLIKES |  | VERY MUCH |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{Gr}$ | High |  | Gras | Gr. | High |  |  |
|  | \% | \% | \% | \% | \% | \% | \% | \% |
| Buttered Chopped Cabbage | 22.9 | 29.3 | 19.1 | 13.3 | 11.4 | 12.2 | 16.2 | 20.0 |
| Boiled Cabbage Wedges | 22.9 | 21.3 | 17.6 | 13.3 | 8.6 | 13.3 | 16.2 | 30.0 |
| Collard Greens | 28.6 | 30.3 | 23.5 | 33.3 | 14.3 | 11.2 | 16.2 | 16.7 |
| Buttered Turnip Greens | 20.0 | 26.1 | 17.6 | 23.3 | 11.4 | 13.3 | 22.1 | 20.0 |
| Stewed Tomatoes and Okra | 20.0 | 21.3 | 11.8 | 16.7 | 11.4 | 19.7 | 30.9 | 46.7 |
| Slioed Fresh Tomatoes | 42.9 | 39.4 | 32.3 | 26.7 | 0.0 | 9.6 | 13.2 | 26.7 |
| Scalloped Tomatoes and Corn | 14.3 | 14.9 | 10.3 | 13.3 | 11.4 | 16.5 | 20.6 | 33.3 |
| Stewed Tomatoes | 5.7 | 15.4 | 10.3 | 13.3 | 14.3 | 23.4 | 29.4 | 36.7 |
| Breaded Tomatoes | 11.4 | 12.8 | 5.9 | 6.7 | 8.6 | 17.0 | 25.0 | 23.3 |
| Glazed Carrots | 14.3 | 18.6 | 11.8 | 3.3 | 20.0 | 17.5 | 19.1 | 33.3 |
| Peas and Carrots | 14.3 | 23.9 | 14.7 | 6.7 | 20.0 | 12.8 | 20.6 | 33.3 |
| Harvard Beets | 20.0 | 18.6 | 19.1 | 16.7 | 20.0 | 18.1 | 22.1 | 30.0 |
| Cauliflower w/Cheese Sauce | 5.7 | 13.3 | 10.3 | 3.3 | 37.1 | 27.7 | 33.8 | 40.0 |
| Mixed Vegetables | 22.9 | 23.4 | 17.6 | 16.7 | 17.1 | 13.3 | 17.6 | 36.7 |
| Yellow Summer Squash | 14.3 | 9.0 | 10.3 | 6.7 | 20.0 | 34.6 | 36.8 | 50.0 |
| Corn and Lima Beans | 11.4 | 14.9 | 13.2 | 13.3 | 17.1 | 18.6 | 27.9 | 30.0 |
| Buttered Green Lima Beans | 14.3 | 17.0 | 11.7 | 10.0 | 14.3 | 19.7 | 27.9 | 23.3 |
| Jello Salad w/Fruit | 40.0 | 41.5 | 33.8 | 40.0 | 2.9 | 6.4 | 11.8 | 6.7 |
| Apple_Celery Salad | 25.7 | 27.7 | 19.1 | 30.0 | 8.6 | 7.4 | 11.8 | 6.7 |
| Cottage Cheese w/Fruit | 40.0 | 28.2 | 19.1 | 23.3 | 8.6 | 18.1 | 26.5 | 33.3 |
| Cottage Cheese w/Tomato | 5.7 | 15.4 | 7.3 | 13.3 | 11.4 | 20.7 | 27.9 | 40.0 |
| Cabbage Slaw | 25.7 | 27.7 | 25.0 | 26.7 | 8.6 | 12.8 | 14.7 | 20.0 |
| Sliced Tomatoes \& Onions | 20.0 | 24.5 | 25.0 | 16.7 | 20.0 | 15.9 | 13.3 | 16.7 |
| Carrot \& Raisin Salad | 20.0 | 18.6 | 20.6 | 13.3 | 17.1 | 19.1 | 16.2 | 30.0 |
| Relish Tray | 17.1 | 18.1 | 17.6 | 16.7 | 8.6 | 14.3 | 14.7 | 16.7 |
| Tossed Green Salad | 34.3 | 59.9 | 30.9 | 43.3 | 2.9 | 5.3 | 10.3 | 6.7 |
| Macaroni Salad | 14.3 | 24.5 | 19.1 | 20.0 | 11.4 | 9.6 | 11.8 | 16.7 |
| Chilled Potato Salad | 28.6 | 40.4 | 30.9 | 43.3 | 5.7 | 6.9 | 8.8 | 10.0 |
| Hot Potato Salad | 20.0 | 25.0 | 20.6 | 30.0 | 5.7 | 13.3 | 23.5 | 23.3 |
| Pancakes | 54.3 | 64.4 | 51.5 | 60.0 | 8.6 | 4.8 | 5.9 | 6.8 |
| Dry Cereal (Asstd | 45.7 | 45.7 | 35.3 | 46.7 | 0.0 | 4.8 | 5.9 | 3.3 |

TABLE 8 (Continued)

| FOOD ITEM | LIKES VERY MUCH |  |  |  | DISLIKES |  | VERY MUCH |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gr. Sch. | High Sch. | Col- <br> lege | Grad. | Gr. Sch. | High <br> Sch. | Col_ lege | Grad. |
|  | \% | \% | \% | \% | $\%$ | \% | $\%$ | \% |
| Oatmeal | 37.1 | 30.3 | 26.5 | 40.0 | 2.9 | 11.7 | 14.7 | 6.7 |
| Cream of Wheat | 37.1 | 29.3 | 27.9 | 40.0 | 8.6 | 12.2 | 17.6 | 10.0 |
| Macaroni \& Cheese | 34.3 | 47.9 | 36.8 | 36.7 | 2.9 | 4.8 | 10.3 | 10.0 |
| Steamed Rice | 28.6 | 31.9 | 27.9 | 26.7 | 2.9 | 8.0 | 16.2 | 13.3 |
| Buttered Noodles | 22.9 | 25.5 | 19.1 | 13.3 | 5.7 | 8.0 | 17.6 | 16.7 |
| Hot Rolls | 51.1 | 71.3 | 61.8 | 70.0 | 2.9 | 1.5 | 7.3 | 6.7 |
| Toast | 65.7 | 70.2 | 51.5 | 56.7 | 0.0 | 1.6 | 4.4 | 3.3 |
| Corn Bread | 45.7 | 57.9 | 42.6 | 46.7 | 2.9 | 6.4 | 8.8 | 10.0 |
| Sliced White Bread | 45.7 | 53.7 | 50.0 | 46.7 | 2.9 | 3.8 | 4.4 | 0.0 |
| Hot Biscuits | 54.3 | 66.0 | 55.9 | 60.0 | 5.7 | 2.7 | 2.9 | 0.0 |
| Sweet Rolls | 60.0 | 66.5 | 58.8 | 53.3 | 0.0 | 1.6 | 2.9 | 0.0 |
| Fresh Oranges | 74.3 | 71.3 | 57.3 | 53.3 | 0.0 | 2.7 | 7.3 | 3.3 |
| Fresh Bananas | 74.3 | 64.9 | 44.1 | 46.7 | 0.0 | 4.8 | 10.3 | 0.0 |
| Fresh Apples | 77.1 | 69.1 | 52.9 | 53.3 | 0.0 | 3.7 | 10.3 | 3.3 |
| Canned Pineapple | 57.1 | 55.3 | 51.5 | 46.7 | 0.0 | 3.7 | 4.4 | 0.0 |
| Stewed Prunes | 8.6 | 21.8 | 20.6 | 6.7 | 20.0 | 17.5 | 25.0 | 23.3 |
| Canned Purple Plums | 22.9 | 27.6 | 19.1 | 23.3 | 8.6 | 14.4 | 22.1 | 10.0 |
| Canned Peaches | 51.4 | 52.1 | 36.7 | 43.3 | 2.9 | 6.4 | 4.4 | 10.0 |
| Applesauce | 45.7 | 43.1 | 36.8 | 43.3 | 11.4 | 4.3 | 7.4 | 10.0 |
| Canned Apricots | 25.7 | 26.6 | 17.6 | 26.7 | 11.4 | 11.2 | 22.1 | 16.7 |
| Fruit Cocktail | 77.1 | 62.2 | 51.5 | 63.3 | 0.0 | 3.7 | 5.9 | 6.7 |
| Orange Juice | 74.3 | 71.8 | 50.0 | 53.3 | 2.9 | 1.6 | 5.9 | 6.7 |
| Vegetable (V-8) Juice | 31.4 | 34.6 | 23.5 | 33.3 | 11.4 | 11.2 | 17.6 | 23.3 |
| Grapefruit Juice | 48.6 | 48.4 | 35.3 | 36.6 | 8.6 | 8.5 | 10.3 | 10.0 |
| Cherry Cobbler | 51.4 | 57.9 | 55.9 | 60.0 | 11.4 | 6.9 | 4.4 | 3.3 |
| Peach Cobbler | 60.0 | 60.6 | 51.5 | 56.7 | 5.7 | 5.3 | 5.9 | 3.3 |
| Cream Pie | 48.6 | 48.9 | 42.6 | 40.0 | 11.4 | 6.4 | 11.8 | 6.7 |
| Sweet Potato Pie | 57.1 | 54.8 | 44.1 | 53.3 | 0.0 | 7.4 | 10.3 | 6.7 |
| Lemon Meringue Pie | 48.6 | 56.9 | 47.1 | 63.3 | 5.7 | 4.3 | 5.9 | 3.3 |
| Apple Pie | 60.0 | 57.9 | 51.5 | 63.3 | 5.7 | 5.3 | 5.9 | 6.7 |
| Apple Crisp | 45.7 | 45.2 | 45.6 | 53.3 | 5.7 | 5.3 | 7.3 | 6.7 |
| Ice Cream | 65.7 | 73.9 | 63.3 | 70.0 | 0.0 | 2.1 | 2.9 | 3.3 |
| Cake Squares w/Icing | 45.7 | 50.5 | 41.2 | 46.7 | 0.0 | 6.4 | 7.3 | 3.3 |
| Pineapple Upside-Down Cake | 45.7 | 53.2 | 47.1 | 36.7 | 5.7 | 5.8 | 7.3 | 3.3 |
| Cherry Short Cake | 42.9 | 46.8 | 44.1 | 33.3 | 8.6 | 6.4 | 13.2 | 6.7 |
| Cheese Cake | 31.4 | 37.2 | 25.0 | 23.3 | 8.6 | 11.7 | 8.8 | 10.0 |

TABLE 8 (Continued)

| FOOD ITEM | LIKES VERY MUCH |  |  |  | DISLIKES VERY MUCH |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gr . Sch. | High Sch. | Col- <br> lege | Grad. | Gr. Sch. | High Sch. | Col- |  |
|  | \% | \% | \% | \% | \% | \% | \% | \% |
| Gingerbread w/ Applesauce | 42.9 | 33.5 | 33.8 | 26.7 | 14.3 | 9.0 | 10.3 | 10.0 |
| Vanilla Pudding | 31.4 | 38.3 | 26.5 | 33.3 | 11.4 | 9.6 | 17.6 | 6.7 |
| Bread Pudding w/ Fruit Sauce | 14.3 | 27.1 | 25.0 | 30.0 | 17.1 | 11.7 | 16.2 | 10.0 |
| Rice and Fruit Pudding | 17.1 | 23.4 | 23.5 | 26.7 | 11.4 | 11.2 | 20.6 | 23.3 |
| Chocolate Pudding w/Coconut | 25.7 | 36.7 | 26.5 | 33.3 | 14.3 | 10.6 | 19.1 | 23.3 |
| Hot Chocolate | 51.4 | 54.3 | 44.1 | 53.3 | 2.9 | 2.1 | 4.4 | 3.3 |
| Milk | 77.1 | 72.3 | 57.3 | 60.0 | 2.9 | 3.7 | 5.9 | 6.7 |
| Iced Tea | 57.1 | 54.8 | 48.5 | 56.7 | 14.3 | 6.4 | 10.3 | 0.0 |
| Coffee | 25.7 | 43.6 | 33.8 | 43.3 | 20.0 | 12.2 | 17.6 | 6.7 |
| Punch | 65.7 | 59.0 | 41.2 | 50.0 | 5.7 | 5.3 | 11.8 | 3.3 |
| Buttermilk | 40.0 | 28.8 | 17.6 | 23.3 | 17.1 | 16.6 | 33.8 | 30.0 |

that have been presented. However, as the education of the mother increased, the frequency of food dislikes also increased.

Ten per cent or more of the respondents whose mother had a gradeschool education scored 50 of the 142 items as "dislike very much;" those from the high school category - 55 items; those from college80 items; and those from graduate school - 81 items. Chitterlings were commonly disliked by over 25 per cent of the respondents at each level. On the positive end of the scale, this food was rated as "like very much" by an equal segment of the population.

An interesting comparison could have been made to determine the preferences of those subjects whose mothers were employed in contrast
to those who were not employed. It may be that the dislikes might increase since working mothers have less time for meal planning and preparation. They may have a tendency to cater excessively to the likes and dislikes of their family members.

Food acceptance should increase as the educational and income levels increase. The results from this survey suggest that food acceptance decreases as education increases. This is a direct indication of the need for nutrition education for all people.

Food Likes and Dislikes of the Subjects
According to College Classification

The preferences of this segment of the population were clustered in more categories than those of the groups related to variables that have been presented in the preceding discussions. See Table 9. More of the meat items, particularly the combination types, were less popular with these groups. Almost all the fish was poorly accepted. Chitterlings, in addition to liver and beef stroganoff, are ranked by considerable numbers at each extreme of the preference scale. Vegetables remained the group of foods most strongly disliked, but yellow summer squash is the only vegetable negatively preferred by over 25 per cent at each classification level. Breads and cereals are not as well liked in this classification as in the other categories presented here.

Ten per cent or more of the freshmen (the majority segment of the survey population) included 57 foods among their less preferred items; sophomores - 90 foods; juniors - 60 foods; and seniors - 62 foods.

TABLE 9 Food likes and dislikes of subjects according to college classification

| FOOD ITEM | LIKES VERY MUCH |  |  |  | DISLIKES VERY MUCH |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fresh | Soph | Jr. | Sr . | Fresh | Soph | Jr. | Sr. |
|  | \% | \% | \% | \% | \% | \% | \% | \% |
| Steak in Tomato Sauce | 19.8 | 19.5 | 20.0 | 35.2 | 7.9 | 15.6 | 8.4 | 9.3 |
| Stuffed Green Peppers | 11.1 | 13.0 | 20.0 | 38.9 | 15.1 | 29.9 | 13.7 | 9.3 |
| Chicken Fried Steak | 31.8 | 30.9 | 25.3 | 44.4 | 6.4 | 15.6 | 9.5 | 3.7 |
| Roast Beef w/Natural Gravy | 35.8 | 37.7 | 30.5 | 55.6 | 7.9 | 11.7 | 5.3 | 3.7 |
| Meat Loaf | 29.4 | 33.8 | 27.4 | 59.3 | 5.6 | 11.7 | 5.3 | 1.9 |
| Chopped Steak | 23.0 | 33.8 | 27.4 | 40.7 | 4.8 | 13.0 | 5.3 | 1.9 |
| Meat Balls w/Spaghetti | 30.2 | 39.0 | 31.6 | 40.7 | 7.1 | 10.4 | 5.3 | 5.6 |
| Grilled Steak | 33.3 | 32.5 | 29.5 | 53.7 | 3.9 | 10.4 | 3.2 | 3.7 |
| Beef Stroganoff w/Noodles | 18.3 | 19.5 | 12.6 | 18.5 | 13.5 | 18.2 | 10.5 | 11.1 |
| Smothered Liver <br> w/Onions | 21.4 | 23.4 | 28.4 | 33.3 | 25.4 | 32.5 | 21.1 | 18.5 |
| Beef Stew w/Vegetables | 22.2 | 18.2 | 20.0 | 29.6 | 15.1 | 18.2 | 9.5 | 5.6 |
| Chitterlings | 26.2 | 24.7 | 24.2 | 42.6 | 31.7 | 40.3 | 26.3 | 27.8 |
| Baked Cured Ham | 37.3 | 33.8 | 27.4 | 51.8 | 5.6 | 6.5 | 3.2 | 5.6 |
| Fresh Roast Pork | 30.2 | 23.4 | 24.2 | 44.4 | 7.1 | 5.2 | 6.3 | 3.7 |
| Grilled Pork | 24.5 | 18.2 | 24.2 | 44.4 | 5.6 | 5.2 | 3.2 | 3.7 |
| Barbequed Spare Ribs | 43.7 | 45.4 | 48.4 | 68.5 | 4.8 | 9.1 | 4.2 | 7.4 |
| Ham Hocks w/Pinto Bns | 31.8 | 23.4 | 30.5 | 51.8 | 10.3 | 18.2 | 9.5 | 3.7 |
| Grilled Polish Sausage | 24.6 | 13.0 | 16.8 | 31.5 | 5.6 | 16.9 | 9.5 | 5.6 |
| Breakfast Bacon | 39.7 | 23.4 | 52.6 | 66.7 | 4.8 | 11.7 | 5.3 | 0.0 |
| Link Sausage | 36.5 | 23.4 | 35.8 | 57.4 | 4.8 | 14.3 | 9.5 | 1.9 |
| Fried Ham | 38.1 | 28.6 | 34.7 | 61.1 | 5.6 | 5.2 | 3.2 | 3.7 |
| Ham \& Macaroni w/Cheese | 32.5 | 20.8 | 23.2 | 35.2 | 8.7 | 14.3 | 10.5 | 14.8 |
| Scrambled Eggs | 37.3 | 31.2 | 37.9 | 55.6 | 7.9 | 6.5 | 12.6 | 13.0 |
| Fried Eggs | 31.2 | 15.6 | 25.3 | 40.7 | 13.5 | 18.2 | 13.7 | 24.1 |
| Fried Chicken | 53.2 | 44.2 | 54.7 | 68.5 | 4.0 | 7.8 | 2.1 | 3.7 |
| Baked Chicken | 36.5 | 32.5 | 37.9 | 53.7 | 4.0 | 11.7 | 4.2 | 5.6 |
| Barbequed Chicken | 50.8 | 37.7 | 47.4 | 61.1 | 4.8 | 9.1 | 3.2 | 3.7 |
| Chicken a'la King | 24.6 | 19.5 | 20.0 | 33.3 | 4.8 | 13.0 | 12.6 | 5.6 |
| Chicken Pot Pie | 25.4 | 26.0 | 24.2 | 35.2 | 11.9 | 14.3 | 8.4 | 9.3 |
| Baked Turkey w/Drsng | 40.5 | 33.8 | 38.9 | 57.4 | 3.2 | 11.7 | 7.4 | 3.7 |
| Chicken \& Noodle Casserole | 27.0 | 19.5 | 23.2 | 31.5 | 4.8 | 1.5 .6 | 9.5 | 9.3 |
| Creamed Turkey | 23.0 | 13.0 | 16.8 | 33.3 | 8.7 | 15.6 | 12.6 | 0.0 |

TABLE 9 (Continued)

| FOOD ITEM | LIKES VERY MUCH |  |  |  | DISLIKES VERY MUCH |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fresh | Soph | Jr. | Sr. | Fresh | Soph | Jr. | Sr. |
|  | \% | \% | \% | \% | \% | \% | \% | \% |
| Tunafish Croquettes | 18.3 | 11.7 | 15.8 | 33.3 | 11.9 | 20.8 | 14.7 | 14.8 |
| Salmon Croquettes | 19.0 | 10.4 | 17.9 | 27.8 | 11.9 | 19.5 | 15.8 | 16.7 |
| Tuna-Noodle Casserole | 22.2 | 14.3 | 15.8 | 25.9 | 8.7 | 16.9 | 13.7 | 20.4 |
| Fried Catfish | 31.8 | 20.8 | 25.3 | 37.0 | 10.3 | 14.3 | 10.5 | 11.1 |
| Fried Shrimp | 46.8 | 42.9 | 37.9 | 55.6 | 8.7 | 10.4 | 16.8 | 14.8 |
| Fried Fish Sticks | 45.2 | 31.2 | 30.5 | 46.3 | 4.0 | 15.6 | 10.5 | 13.0 |
| Tunafish Salad | 36.5 | 28.6 | 20.0 | 31.5 | . 6 | 6.5 | 7.4 | 13.0 |
| Assorted Cold Cuts | 27.8 | 24.7 | 15.8 | 33.3 | 12.7 | 14.3 | 8.4 | 13.0 |
| Sloppy-Joe Burger on Bun | 40.5 | 31.2 | 15.8 | 38.9 | 5.6 | 9.1 | 8.4 | 13.0 |
| Submarine Sandwich | 23.0 | 22.1 | 15.8 | 27.8 | 7.1 | 7.8 | 7.4 | 9.3 |
| Hamburger On Bun | 44.4 | 36.4 | 33.7 | 50.0 | 4.0 | 10.4 | 6.3 | 1.9 |
| Grilled Ham and Cheese Sand. | 49.2 | 33.8 | 34.7 | 50.0 | 4.0 | 7.8 | 7.4 | 3.7 |
| Barbequed Beef on Bun | 49.2 | 40.3 | 29.5 | 55.6 | 3.2 | 10.4 | 9.5 | 11.1 |
| Hot Roast Beef Sand. | 45.2 | 31.2 | 23.2 | 48.2 | 2.4 | 11.7 | 5.3 | 1.9 |
| Boiled Navy Beans | 18.3 | 15.6 | 20.0 | 27.8 | 14.3 | 20.8 | 14.7 | 13.0 |
| Blackeyed Peas | 28.6 | 15.6 | 23.2 | 29.6 | 12.7 | 19.5 | 1.6 | 13.0 |
| Baked Beans | 35.7 | 32.5 | 33.7 | 42.6 | 4.8 | 5.2 | 9.5 | 3.7 |
| Chili Beans | 41.3 | 31.2 | 33.7 | 51.8 | 6.4 | 7.8 | 8.4 | 3.7 |
| Scalloped Potatoes | 20.6 | 15.6 | 18.9 | 24.1 | 12.7 | 16.9 | 13.7 | 5.6 |
| Mashed Potatoes | 34.9 | 29.9 | 30.5 | 38.9 | 7.1 | 9.1 | 10.5 | 5.6 |
| Creamed Potatoes | 32.5 | 23.4 | 23.2 | 40.7 | 9.5 | 13.0 | 7.4 | 9.3 |
| French Fries | 54.8 | 42.9 | 45.3 | 63.0 | 3.2 | 6.5 | 6.3 | 0.0 |
| Candied Yams | 34.9 | 40.3 | 30.5 | 53.7 | 10.3 | 6.5 | 9.5 | 9.3 |
| Green Beans w/Ham or Bacon | 35.7 | 35.1 | 29.5 | 50.0 | 8.0 | 10.4 | 6.3 | 7.4 |
| Green Peas w/Ham or Bacon | 26.2 | 26.0 | 22.1 | 40.7 | 10.3 | 6.5 | 8.4 | 9.3 |
| Buttered Peas | 27.0 | 28.6 | 24.2 | 48.2 | 9.5 | 5.2 | 9.5 | 9.3 |
| Buttered Broccoli | 18.3 | 19.5 | 20.0 | 27.8 | 20.6 | 20.8 | 16.8 | 22.2 |
| Cream Style Corn | 42.9 | 32.5 | 34.7 | 53.7 | 3.2 | 6.5 | 5.3 | 1.9 |
| Buttered Whole Kernel Corn | 44.4 | 42.9 | 41.1 | 46.3 | 4.0 | 6.5 | 4.2 | 1.9 |
| Buttered Spinach | 31.0 | 23.4 | 22.1 | 33.3 | 16.7 | 19.5 | 16.8 | 16.7 |
| Creamed Spinach | 24.6 | 18.2 | 16.8 | 25.9 | 17.5 | 22.1 | 20.0 | 22.2 |
| Buttered Brussel Sprouts | 11.9 | 7.8 | 13.7 | 16.7 | 24.6 | 36.4 | 25.3 | 31.5 |

TABIE 9 (Continued)

| FOOD ITEM | LIKES VERY MUCH |  |  |  | DISLIKES VERY MUCH |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fresh | Soph | Jr. | Sr . | Fresh | Soph | Jr. | Sr |
|  | \% | \% | \% | \% | \% | \% | \% | \% |
| Buttered Chopped Cabbage | 19.8 | 24.7 | 23.2 | 35.2 | 14.3 | 19.5 | 11.6 | 13.0 |
| Boiled Cabbage Wedges | 16.7 | 16.9 | 18.9 | 29.6 | 12.0 | 20.8 | 19.0 | 13.0 |
| Collard Greens | 28.6 | 22.1 | 27.4 | 33.3 | 11.1 | 16.9 | 15.8 | 14.8 |
| Buttered Turnip Grns | 25.4 | 16.9 | 20.0 | 25.9 | 13.5 | 20.8 | 15.8 | 20.4 |
| Stewed Tomatoes and Okra | 15.1 | 15.6 | 16.8 | 27.8 | 23.0 | 28.6 | 28.4 | 24.1 |
| Sliced Fresh Tomatoes | 34.1 | 40.3 | 31.6 | 46.3 | 10.3 | 13.0 | 12.6 | 11.1 |
| Scalloped Tomatoes and Corn | 12.7 | 13.0 | 10.5 | 16.7 | 15.9 | 22.1 | 19.0 | 22.2 |
| Stewed Tomatoes | 11.1 | 11.7 | 11.6 | 16.7 | 22.2 | 28.6 | 24.2 | 29.6 |
| Breaded Tomatoes | 9.5 | 9.1 | 10.5 | 13.0 | 17.5 | 24.7 | 14.7 | 22.2 |
| Glazed Carrots | 15.9 | 14.3 | 14.7 | 11.1 | 17.5 | 19.5 | 20.0 | 24.1 |
| Peas and Carrots | 21.4 | 14.3 | 16.8 | 20.4 | 15.1 | 19.5 | 17.9 | 20.4 |
| Harvard Beets | 15.8 | 13.0 | 15.8 | 31.5 | 17.5 | 23.4 | 22.1 | 20.4 |
| Cauliflower w/Cheese Sauce | 10.3 | 10.4 | 8.4 | 14.8 | 23.8 | 33.8 | 40.0 | 27.8 |
| Mixed Vegetables | 21.4 | 14.3 | 18.9 | 33.3 | 15.1 | 19.5 | 19.0 | 18.5 |
| Yellow Summer Squash | 10.3 | 6.5 | 9.5 | 11.1 | 25.4 | 41.6 | 37.9 | 42.6 |
| Corn and Lima Beans | 13.5 | 10.4 | 11.6 | 20.4 | 21.4 | 26.0 | 20.0 | 24.1 |
| Buttered Green Lima Beans | 15.9 | 10.4 | 11.6 | 20.4 | 20.6 | 26.0 | 22.1 | 24.1 |
| Jello Salad w/Fruit | 42.1 | 33.8 | 28.4 | 48.2 | 6.4 | 9.1 | 10.5 | 5.6 |
| Apple-Celery Salad | 28.6 | 18.2 | 20.0 | 33.3 | 5.6 | 16.9 | 12.6 | 3.7 |
| Cottage Cheese w/Fruit | 24.6 | 22.1 | 27.4 | 31.5 | 12.0 | 28.6 | 21.1 | 22.2 |
| Cottage Cheese w/Tomato | 12.0 | 6.5 | 11.6 | 18.5 | 15.9 | 32.5 | 28.4 | 22.2 |
| Cabbage Slaw | 22.2 | 20.8 | 26.3 | 38.9 | 12.7 | 20.8 | 12.6 | 9.3 |
| Sliced Tomatoes and Onions | 21.4 | 24.7 | 20.0 | 24.1 | 17.5 | 18.2 | 16.8 | 11.1 |
| Carrot and Raisin Sld | 19.1 | 15.6 | 13.7 | 25.9 | 18.3 | 24.7 | 17.9 | 20.4 |
| Re].ish Tray | 19.1 | 13.0 | 16.8 | 22.2 | 13.5 | 19.5 | 11.6 | 14.8 |
| Tossed Green Salad | 34.1 | 28.6 | 36.8 | 51.8 | 5.6 | 9.1 | 6.3 | 1.8 |
| Macaroni Salad | 21.4 | 13.0 | 25.3 | 27.8 | 12.7 | 13.0 | 6.3 | 9.3 |
| Chilled Potato Salad | 36.5 | 28.6 | 35.8 | 46.3 | 7.9 | 11.7 | 5.3 | 3.7 |
| Hot Potato Salad | 22.2 | 18.2 | 22.1 | 33.3 | 18.2 | 20.8 | 10.5 | 13.0 |
| Pancakes | 63.5 | 57.2 | 51.6 | 64.8 | 1.6 | 6.5 | 10.5 | 3.7 |
| Dry Cereeal (Asstd) | 42.9 | 44.2 | 38.9 | 46.3 | 2.4 | 6.5 | 4.2 | 5.6 |
| Oatmeal | 31.8 | 27.3 | 31.6 | 29.6 | 6.4 | 22.1 | 7.4 | 14.8 |

TABLE 9 (Continued)

| FOOD ITEM | LIKES VERY MUCH |  |  |  | DISLIKES VERY MUCH |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fresh | Soph | Jr. | Sr . | Fresh | Soph | Jr. | Sr. |
|  | \% | \% | \% | \% | \% | \% | \% | \% |
| Cream of Wheat | 30.2 | 24.7 | 33.7 | 27.8 | 8.7 | 16.9 | 13.7 | 14.8 |
| Macaroni \& Cheese | 48.1 | 33.8 | 41.1 | 40.7 | 3.9 | 9.1 | 4.2 | 11.1 |
| Steamed Rice | 34.9 | 27.3 | 26.3 | 27.8 | 6.3 | 11.7 | 8.4 | 14.8 |
| Buttered Noodles | 27.8 | 16.9 | 20.0 | 20.4 | 6.3 | 13.0 | 10.5 | 16.7 |
| Hot Rolls | 67.5 | 59.7 | 63.2 | 74.1 | 2.3 | 5.2 | 2.1 | 3.7 |
| Toast | 60.3 | 59.7 | 64.0 | 70.4 | 0.8 | 5.2 | 2.1 | 0.0 |
| Corn Bread | 47.6 | 46.7 | 53.7 | 66.7 | 6.3 | 9.1 | 4.2 | 5.6 |
| Sliced White Bread | 50.0 | 49.4 | 44.2 | 61.2 | 2.4 | 5.2 | 4.2 | 0.0 |
| Hot Biscuits | 46.4 | 54.6 | 62.1 | 72.2 | 1.6 | 3.9 | 3.2 | 1.8 |
| Sweet Rolls | 63.5 | 53.3 | 61.1 | 68.5 | 0.8 | 2.6 | 3.2 | 0.0 |
| Fresh Oranges | 69.1 | 58.4 | 63.2 | 74.1 | 1.6 | 6.5 | 4.2 | 1.8 |
| Fresh Bananas | 57.1 | 54.5 | 56.8 | 68.5 | 4.8 | 3.9 | 7.4 | 3.7 |
| Fresh Apples | 66.7 | 55.8 | 62.1 | 74.1 | 2.4 | 6.5 | 6.3 | 1.8 |
| Canned Pineapple | 54.0 | 53.2 | 52.6 | 51.9 | 2.4 | 3.9 | 4.2 | 3.7 |
| Stewed Prunes | 19.8 | 9.1 | 22.1 | 16.7 | 19.0 | 28.6 | 12.6 | 22.2 |
| Canned Purple Plums | 22.2 | 16.9 | 28.4 | 25.9 | 14.2 | 28.6 | 8.4 | 11.1 |
| Canned Peaches | 47.6 | 39.0 | 48.4 | 55.6 | 4.8 | 7.8 | 5.3 | 3.7 |
| Applesauce | 49.2 | 32.5 | 40.0 | 37.0 | 2.4 | 9.1 | 3.2 | 13.0 |
| Canned Apricots | 24.6 | 14.3 | 25.3 | 31.5 | 13.4 | 18.2 | 8.4 | 18.5 |
| Fruit Cocktail | 65.1 | 52.0 | 55.8 | 72.2 | 2.4 | 6.5 | 4.2 | 1.8 |
| Orange Juice | 64.3 | 60.0 | 67.4 | 72.2 | 2.4 | 6.5 | 2.1 | 0.0 |
| Vegetable (V-8) Juice | 24.6 | 33.8 | 32.6 | 37.0 | 13.5 | 13.0 | 11.6 | 16.7 |
| Grapefruit Juice | 42.9 | 37.9 | 46.3 | 50.0 | 7.9 | 14.3 | 5.3 | 9.3 |
| Cherry Cobbler | 53.2 | 55.8 | 52.6 | 64.8 | 5.6 | 7.8 | 5.3 | 7.4 |
| Peach Cobbler | 54.0 | 58.4 | 54.7 | 66.7 | 4.0 | 6.5 | 4.2 | 5.6 |
| Cream Pie | 42.1 | 44.2 | 43.2 | 61.2 | 10.3 | 10.4 | 6.3 | 3.7 |
| Sweet Potato Pie | 51.6 | 52.0 | 49.5 | 57.4 | 5.6 | 11.7 | 4.2 | 7.4 |
| Lemon Meringue Pie | 51.6 | 50.6 | 53.7 | 59.3 | 4.0 | 5.2 | 7.4 | 7.4 |
| Apple Pie | 62.7 | 48.1 | 55.8 | 63.0 | 1.6 | 9.1 | 5.3 | 7.4 |
| Apple Crisp | 49.2 | 40.3 | 41.1 | 57.4 | 3.2 | 9.1 | 6.3 | 5.6 |
| Ice Cream | 73.0 | 67.5 | 67.4 | 68.5 | 0.8 | 3.9 | 2.1 | 3.7 |
| Cake Squares w/Icing | 51.6 | 42.9 | 36.8 | 63.0 | 3.2 | 9.1 | 4.2 | 7.4 |
| Pineapple UpsideDown Cake | 49.2 | 50.7 | 41.1 | 59.3 | 6.4 | 5.2 | 6.3 | 1.8 |
| Cherry Short Cake | 45.3 | 42.9 | 34.7 | 55.6 | 5.6 | 6.5 | 12.6 | 7.4 |
| Cheese Cake | 34.1 | 23.4 | 31.6 | 40.7 | 8.7 | 16.9 | 12.6 | 7.4 |
| Gingerbread w/ Applesauce | 35.7 | 24.7 | 32.6 | 40.7 | 9.5 | 11.7 | 4.2 | 16.7 |

TABLE 9 (Continued)

| FOOD ITEM | LIKES VERY MUCH |  |  |  | DISLIKES VERY MUCH |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fresh | Soph | Jr. | Sr. | Fresh | Soph | Jr. | Sr. |
|  | \% | \% | \% | \% | \% | \% | \% | \% |
| Vanilla Pudding | 38.9 | 24.7 | 28.4 | 42.6 | 12.0 | 15.6 | 9.5 | 11.2 |
| Bread Pudding w/Fruit Sauce | 29.4 | 20.8 | 18.9 | 31.5 | 12.0 | 18.2 | 9.5 | 18.5 |
| Rice \& Fruit Pudding | 27.8 | 14.3 | 16.8 | 33.3 | 12.7 | 18.2 | 14.7 | 16.7 |
| Chocolate Pudding w/Coconut | 31.0 | 29.9 | 28.4 | 40.7 | 15.1 | 15.6 | 15.8 | 14.8 |
| Hot Chocolate | 57.1 | 49.4 | 37.9 | 59.3 | 3.2 | 2.6 | 2.1 | 1.8 |
| Milk | 70.0 | 61.0 | 62.1 | 77.8 | 3.2 | 7.8 | 6.3 | 3.7 |
| Iced Tea | 54.8 | 46.7 | 47.4 | 68.5 | 5.6 | 6.5 | 11.6 | 5.6 |
| Coffee | 42.1 | 32.5 | 29.5 | 51.8 | 11.1 | 18.2 | 16.8 | 11.1 |
| Punch | 54.8 | 45.5 | 48.4 | 70.4 | 3.6 | 13.0 | 5.3 | 7.4 |
| Buttermilk | 28.8 | 22.1 | 26.3 | 29.6 | 20.8 | 24.7 | 20.0 | 18.5 |

Food Likes and Dislikes of Subjects According to Whether They Selected Foods Daily From

All Four Food Groups

Approximately 70 per cent of the subjects who eat some foods daily from each of the four food groups checked 57 items as "dislike very much." The remaining subjects reported "dislike very much" for 88 items. See Table 10. Thus, these results indicate that the students who did not choose daily from all four food groups have high percentages of dislikes.

Neither of these two groups indicated a high preference for vegetables, but the dislike for vegetables was stronger among the subjects who did not choose the wider variety of foods. This

TABLE 10 Food likes and dislikes of subjects according to whether they selected food daily from all four food groups

| FOOD ITEM | $\begin{aligned} & \text { LIKES } \\ & \text { Do } \end{aligned}$ | VERY MUCH Do Not | DISLIKES $D_{0}$ | VERY MUCH Do Not |
| :---: | :---: | :---: | :---: | :---: |
|  | \% | \% | \% | \% |
| Steak in Tomato Sauce | 20.4 | 34.8 | 9.2 | 15.2 |
| Stuffed Green Peppers | 17.1 | 26.1 | 16.5 | 21.7 |
| Chicken Fried Steak | 30.0 | 43.5 | 8.2 | 13.0 |
| Roast Beef w/Natural Gravy | 36.2 | 47.8 | 6.3 | 15.2 |
| Meat Loaf | 33.6 | 41.3 | 6.0 | 8.7 |
| Chopped Steak | 27.3 | 43.5 | 6.0 | 8.7 |
| Meat Balls w/Spaghetti | 34.2 | 34.8 | 6.3 | 13.0 |
| Grilled Steak | 34.5 | 39.1 | 4.0 | 13.0 |
| Beef Stroganoff w/Noodles | 15.8 | 26.1 | 13.5 | 13.0 |
| Smothered Liver w/Onions | 24.0 | 36.9 | 24.0 | 30.4 |
| Beef Stew w/Vegetables | 21.4 | 26.0 | 12.2 | 17.4 |
| Chitterlings | 25.0 | 45.6 | 32.9 | 23.9 |
| Baked Cured Ham | 34.2 | 47.8 | 4.6 | 8.7 |
| Fresh Roast Pork | 28.3 | 34.8 | 5.9 | 6.5 |
| Grilled Pork | 24.7 | 34.8 | 4.3 | 6.5 |
| Barbequed Spare Ribs | 48.4 | 54.3 | 6.0 | 6.5 |
| Ham Hocks w/Pinto Beans | 32.0 | 36.9 | 10.5 | 13.0 |
| Grilled Polish Sausage | 19.1 | 34.8 | 8.6 | 13.0 |
| Breakfast Bacon | 42.8 | 52.2 | 4.9 | 10.9 |
| Link Sausage | 35.5 | 45.6 | 7.6 | 8.7 |
| Fried Ham | 37.5 | 45.6 | 5.0 | 2.2 |
| Ham and Macaroni w/Cheese | 28.0 | 28.3 | 10.5 | 17.4 |
| Scrambled Eggs | 39.1 | 37.0 | 8.9 | 15.2 |
| Fried Eggs | 28.3 | 23.9 | 15.5 | 21.7 |
| Fried Chicken | 52.3 | 65.2 | 3.3 | 10.9 |
| Baked Chicken | 35.5 | 58.7 | 5.3 | 10.9 |
| Barbequed Chicken | 46.0 | 67.4 | 5.0 | 6.5 |
| Chicken a'la King | 21.7 | 36.9 | 8.6 | 10.9 |
| Chicken Pot Pie | 25.3 | 36.9 | 10.5 | 15.2 |
| Baked Turkey w/Dressing | 38.2 | 60.9 | 6.0 | 8.7 |
| Chicken \& Noodle Casserole | 23.7 | 34.8 | 8.6 | 13.1 |
| Creamed Turkey | 19.7 | 28.3 | 9.9 | 10.9 |
| Tunafish Croquettes | 16.8 | 30.4 | 15.5 | 13.0 |
| Salmon Croquettes | 16.5 | 30.4 | 16.1 | 10.9 |
| Tuna-Noodle Casserole | 18.4 | 26.1 | 14.1 | 10.9 |
| Fried Catfish | 28.3 | 30.4 | 9.9 | 21.7 |

TABIE 10 (Continued)

| FOOD ITEM | $\begin{aligned} & \text { LIKES } \\ & \mathrm{Do}_{0} \end{aligned}$ | VERY MUCH Do Not | DISLIKES Do | VERY MUCH Do Not |
| :---: | :---: | :---: | :---: | :---: |
|  | \% | $\%$ | \% | \% |
| Fried Shrimp | 42.4 | 58.7 | 12.5 | 10.9 |
| Fried Fish Sticks | 36.5 | 50.0 | 9.5 | 10.9 |
| Tunafish Salad | 28.6 | 36.9 | 7.2 | 8.7 |
| Assorted Cold Cuts | 23.7 | 32.6 | 12.2 | 10.9 |
| Sloppy-Joe Burger on Bun | 29.6 | 45.6 | 7.9 | 10.9 |
| Submarine Sandwich | 20.7 | 28.3 | 7.9 | 6.5 |
| Hamburger on Bun | 38.8 | 52.2 | 5.3 | 8.7 |
| Grilled Ham and Cheese Sand. | 41.1 | 50.0 | 4.9 | 10.9 |
| Barbequed Beef on Bun | 39.1 | 67.4 | 8.2 | 4.3 |
| Hot Roast Beef Sandwich | 34.2 | 54.4 | 4.6 | 8.7 |
| Boiled Navy Beans | 19.1 | 21.7 | 14.5 | 21.7 |
| Blackeyed Peas | 24.0 | 26.1 | 13.2 | 17.4 |
| Baked Beans | 34.5 | 41.3 | 6.0 | 6.5 |
| Chili Beans | 36.2 | 54.3 | 6.9 | 6.5 |
| Scalloped Potatoes | 19.1 | 23.9 | 11.8 | 19.6 |
| Mashed Potatoes | 31.3 | 45.6 | 8.5 | 6.5 |
| Creamed Potatoes | 28.9 | 32.6 | 9.5 | 10.9 |
| French Fries | 49.0 | 63.0 | 3.9 | 6.5 |
| Candied Yams | 35.9 | 50.0 | 8.9 | 10.9 |
| Green Beans w/Ham or Bacon | 36.5 | 32.6 | 6.9 | 15.2 |
| Green Peas w/Ham or Bacon | 27.0 | 28.3 | 8.2 | 13.0 |
| Buttered Peas | 30.3 | 28.3 | 7.6 | 15.2 |
| Buttered Broccoli | 20.7 | 19.6 | 20.1 | 19.6 |
| Cream Style Corn | 41.8 | 30.4 | 3.6 | 8.7 |
| Buttered Whole Kernel Corn | 44.1 | 41.3 | 3.6 | 8.7 |
| Buttered Spinach | 28.0 | 23.9 | 16.5 | 19.6 |
| Craamed Spinach | 21.4 | 21.7 | 19.4 | 19.6 |
| Buttered Brussel Sprouts | 11.2 | 17.4 | 28.3 | 30.4 |
| Buttered Chopped Cabbage | 24.0 | 23.9 | 13.2 | 23.9 |
| Boiled Cabbage Wedges | 19.7 | 15.2 | 13.8 | 30.4 |
| Collard Greens | 27.3 | 30.4 | 12.5 | 26.1 |
| Buttered Turnip Greens | 22.0 | 23.9 | 15.7 | 23.9 |
| Stewed Tomatoes and Okra | 17.1 | 21.7 | 25.9 | 26.1 |
| Sliced Fresh Tomatoes | 35.5 | 43.5 | 11.5 | 13.0 |
| Scalloped Tomatoes and Corn | 11.8 | 19.6 | 18.4 | 23.9 |
| Stewed Tomatoes | 12.2 | 15.2 | 23.7 | 37.0 |

TABLE 10 (Continued)

| FOOD ITEM | $\begin{aligned} & \text { LIKES } \\ & \text { Do } \end{aligned}$ | VERY MUCH Do Not | DISLIKES Do | VERY MUCH Do Not |
| :---: | :---: | :---: | :---: | :---: |
|  | \% | $\%$ | $\%$ | $\%$ |
| Breaded Tomatoes | 9.9 | 13.0 | 17.4 | 30.4 |
| Glazed Carrots | 14.1 | 17.4 | 18.4 | 28.3 |
| Peas and Carrots | 18.1 | 21.7 | 16.1 | 28.3 |
| Harvard Beets | 16.8 | 23.9 | 20.1 | 23.9 |
| Cauliflower w/Cheese Sauce | 9.9 | 15.2 | 29.3 | 43.5 |
| Mixed Vegetables | 21.4 | 19.6 | 16.4 | 26.1 |
| Yellow Summer Squash | 8.9 | 13.0 | 34.5 | 39.1 |
| Corn and Lima Beans | 13.5 | 13.0 | 21.4 | 30.4 |
| Buttered Green Lima Beans | 13.5 | 19.6 | 22.0 | 28.3 |
| Jello Salad w/Fruit | 35.2 | 54.4 | 7.6 | 10.9 |
| Apple_Celery Salad | 23.4 | 34.8 | 9.2 | 13.0 |
| Cottage Cheese w/Fruit | 24.7 | 34.8 | 18.4 | 28.3 |
| Cottage Cheese w/Tomato | 10.9 | 17.4 | 22.4 | 34.8 |
| Cabbage Slaw | 24.7 | 32.6 | 13.2 | 19.6 |
| Sliced Tomatoes and Onions | 21.7 | 26.1 | 15.8 | 21.7 |
| Carrot and Raisin Salad | 17.1 | 23.9 | 19.7 | 21.7 |
| Relish Tray | 16.8 | 23.9 | 13.8 | 19.6 |
| Tossed Green Salad | 37.2 | 32.6 | 5.9 | 6.5 |
| Macaroni Salad | 22.0 | 19.6 | 9.9 | 15.2 |
| Chilled Potato Salad | 35.2 | 43.5 | 7.2 | 8.7 |
| Hot Potato Salad | 23.4 | 21.7 | 15.5 | 19.6 |
| Pancakes | 59.2 | 58.7 | 5.3 | 6.5 |
| Dry Cereal (Assorted) | 42.4 | 43.5 | 3.6 | 8.7 |
| Oatmeal | 30.6 | 28.3 | 10.5 | 17.4 |
| Cream of Wheat | 28.6 | 34.8 | 11.8 | 19.6 |
| Macaroni and Cheese | 41.8 | 45.6 | 4.9 | 15.2 |
| Steamed Rice | 30.3 | 28.3 | 7.6 | 21.7 |
| Buttered Noodles | 20.7 | 32.6 | 9.5 | 17.4 |
| Hot Rolls | 64.5 | 73.9 | 2.9 | 4.3 |
| Toast | 62.5 | 65.2 | 1.6 | 4.3 |
| Corn Bread | 51.3 | 56.5 | 5.6 | 10.9 |
| Sliced White Bread | 49.3 | 54.4 | 3.0 | 4.3 |
| Hot Biscuits | 59.9 | 60.8 | 3.0 | 0.0 |
| Sweet Rolls | 60.9 | 65.2 | 2.0 | 0.0 |
| Fresh Oranges | 65.1 | 71.7 | 3.3 | 4.3 |
| Fresh Bananas | 56.9 | 67.4 | 5.9 | 0.0 |

TABLE 10 (Continued)

| FOOD ITEM | $\begin{aligned} & \text { LTKES } \\ & \text { Do } \end{aligned}$ | VERY MUCH Do Not | DISLIKES | VERY MUCH Do Not |
| :---: | :---: | :---: | :---: | :---: |
|  | $\%$ | $\%$ | \% | \% |
| Fresh Apples | 63.5 | 69.6 | 4.3 | 4.3 |
| Canned Pineapple | 52.6 | 56.5 | 2.6 | 8.7 |
| Stewed Prunes | 17.4 | 19.6 | 19.4 | 23.9 |
| Canned Purple Plums | 23.0 | 26.1 | 14.5 | 21.7 |
| Canned Peaches | 46.0 | 54.4 | 4.9 | 8.7 |
| Applesauce | 40.5 | 47.8 | 5.3 | 8.7 |
| Canned Apricots | 22.7 | 30.4 | 14.1 | 13.0 |
| Fruit Cocktail | 60.5 | 63.0 | 3.0 | 8.7 |
| Orange Juice | 65.5 | 65.2 | 2.3 | 6.5 |
| Vegetable (V-8) Juice | 30.3 | 34.8 | 12.8 | 17.4 |
| Grapefruit Juice | 42.4 | 52.2 | 9.2 | 6.5 |
| Cherry Cobbler | . 54.0 | 65.2 | 6.3 | 6.5 |
| Peach Cobbler | 55.3 | 69.6 | 4.9 | 4.3 |
| Cream Pie | 44.4 | 54.4 | 8.2 | 8.7 |
| Sweet Potato Pie | 49.7 | 67.4 | 6.9 | 6.5 |
| Lemon Meringue Pie | 51.0 | 67.4 | 6.2 | 2.2 |
| Apple Pie | 55.3 | 73.9 | 5.3 | 4.4 |
| Apple Crisp | 44.4 | 58.7 | 5.9 | 4.4 |
| Ice Cream | 68.1 | 80.4 | 1.9 | 4.4 |
| Cake Squares w/Icing | 46.1 | 56.5 | 4.9 | 8.7 |
| Pineapple Upside-Down Cake | 47.0 | 60.9 | 5.3 | 6.5 |
| Cherry Short Cake | 43.1 | 45.6 | 7.6 | 10.9 |
| Cheese Cake | 32.2 | 32.6 | 9.9 | 21.7 |
| Gingerbreal w/Applesauce | 31.6 | 43.5 | 9.5 | 10.9 |
| Vanilla Pudding | 32.2 | 41.3 | 11.5 | 15.2 |
| Bread Pudding w/Fruit Sauce | 23.4 | 36.9 | 12.5 | 21.7 |
| Rice and Fruit Pudding | 2 J .1 | 34.8 | 14.5 | 19.6 |
| Chocolate Pudding w/Coconut | 30.9 | 37.0 | 13.8 | 26.1 |
| Hot Chocolate | 50.7 | 52.2 | 2.6 | 2.2 |
| Milk | 68.7 | 56.5 | 3.3 | 17.4 |
| Iced Tea | 53.0 | 54.3 | 7.9 | 4.3 |
| Coffee | 36.8 | 47.8 | 13.8 | 17.4 |
| Punch | 53.3 | 54.3 | 6.6 | 6.5 |
| Buttermilk | 26.1 | 32.6 | 21.4 | 19.6 |

particular clan of respondents also indicated a stronger dislike for milk than other participants in the survey. In fact, the milk group was the food group most commonly omitted by the students who did not eat some foods daily from all four groups.

Neither group selected a wide variety of the vitamin A and Vitamin C rich foods. This finding alone is sufficient to suggest that the diets of the students at Langston University seem to be nutritionally inadequate.

Some Other Factors Which May Influence the Likes and Dislikes of the Subjects

According to this study, the students at Langston University are very dissatisfied with their dining hall. See Table 1l. They are more displeased with the food than the physical factors although they are not very satisfied with either. In regard to the environmental factors, they are more dissatisfied with the attitude of the personnel and with the music than any other factors. In this study it was not identified whether type or amount of music provided caused the dissatisfaction. In regard to food, the subjects are more unhappy with the variety, quantity, seasoning and the way the food is served on the plates than with other aspects of the food.

A large percentage of students, both male and female, reported that they miss meals often. See Table 12. Approximately 50 per cent of the student population miss meals three or more times per week.

Female subjects miss slightly more meals at breakfast, lunch and dinner, than the males. Of the three meals, breakfast is missed most often, lunch next and dinner the least by both males and females.

Table 11 Degree of satisfaction of students with their dining hall

| Factors <br> Influencing <br> Satisfaction | Very <br> Satis_ <br> factory | Satis_ <br> factory | Un- <br> satis_ <br> factory | Very <br> Unsatis_ <br> factory | No <br> Response | Total* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\%$ | $\%$ | $\%$ | $\%$ | $\%$ | $\%$ |

A. Environ-
mental-Factors

| Noise | 7.9 | 55.1 | 20.7 | 14.2 | 1.0 | 99.9 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Odors | 4.5 | 47.1 | 27.3 | 16.8 | 4.2 | 99.9 |
| Music | 7.1 | 29.5 | 17.3 | 40.3 | 5.6 | 99.8 |
| Serving Hours | 5.9 | 50.2 | 25.6 | 13.4 | 4.8 | 99.9 |
| Attitude of <br> Personnel | 4.2 | 18.7 | 28.1 | 45.7 | 3.1 | 99.8 |
| Appearance <br> of Personnel | 4.5 | 32.9 | 26.4 | 32.7 | 3.4 | 99.9 |

Neatness of Dining Hall
$2.8 \quad 33.8$
29.3
$29.8 \quad 4.2$
99.9

| Lighting | 6.2 | 67.6 | 9.9 | 8.5 | 7.6 | 99.8 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Comfort of

| Chairs | 7.6 | 65.3 | 13.9 | 6.3 | 6.8 | 99.9 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Height of

| Tables | 10.2 | 67.8 | 7.9 | 8.5 | 5.4 | 99.8 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

(Comfort)
Temperature of

| Iemperature of | 5.6 | 55.3 | 25.6 | 13.4 | 0.0 | 99.9 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Room |  | 47.7 | 27.8 | 14.2 | 5.1 | 99.9 |

B. Food

| Appearance | 2.0 | 17.8 | 33.8 | 38.3 | 7.9 | 99.8 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Temperature | 2.0 | 18.2 | 32.1 | 39.5 | 8.2 | 100.0 |
| Variety | 2.0 | 10.5 | 34.4 | 44.0 | 9.1 | 100.0 |
| Quantity | 2.8 | 14.2 | 31.8 | 43.5 | 7.6 | 99.9 |
| Seasoning | 2.0 | 16.8 | 30.1 | 43.5 | 7.6 | 100.0 |

Table 11 (Continued)

| Factors <br> Influencing <br> Satisfaction | Very <br> Satis_ <br> factory | Satis_ <br> factory | Un- <br> satis_ <br> factory | Unsatis_ <br> factory | No <br> Response | Total* |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| B. Food (Cont'd). | \% \% | \% | $\%$ | $\%$ | $\%$ |  |
| Color | 1.7 | 25.9 | 30.7 | 33.2 | 8.5 | 99.7 |
| Texture | 2.0 | 13.4 | 38.9 | 37.5 | 8.2 | 100.0 |
| Way Served <br> on Plates | 3.1 | 2.0 | 27.0 | 40.9 | 27.0 | 100.0 |

* Totals do not equal 100 per cent due to rounding off numbers.

Table 12 Frequency with which subjects missed meals

| FREQUENCY | BREAKFAST |  | LUNCH |  | DINNER |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male | Female | Male | Female | Male | Female |
|  | \% | \% | \% | \% | \% | \% |
| Never | 10.8 | 7.3 | 23.0 | 7.3 | 34.8 | 12.2 |
| Occasionally | 17.0 | 27.1 | 24.1 | 31.6 | 20.4 | 26.5 |
| Once A Week | 10.8 | 5.4 | 12.2 | 6.2 | 13.0 | 17.3 |
| Twice A Week | 12.2 | 10.6 | 10.3 | 18.6 | 5.4 | 15.0 |
| Three or More Times Per Week | 47.3 | 49.5 | 30.4 | 36.3 | 26.4 | 29.0 |
| Totals | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Less than 10 per cent of the male and female students eat all meals regularly. The males consistently eat more meals regularly per week than the females.
"Dislike food" was checked a substantially higher number of times than any other reason given for missing meals by both males and females. See Table 13.

Table 13 Reasons subjects missed meals *

| REASONS | NUMBER OF PIMES <br> Male | Female |
| :--- | :---: | :---: |
| Does not apply | 9 | 10 |
| Inconvenient serving hours | 57 | 80 |
| Too little time | 64 | 95 |
| Go off campus | 29 | 42 |
| Like to eat out | 18 | 45 |
| Dislike food | 106 | 172 |
| Prefer to sleep | 73 | 93 |
| Dieting to lose weight | 22 | 54 |
| Work at mealtimes | 18 | 19 |
| Other | 2 | 31 |
| No response |  | 2 |

[^0]In the order of their importance males checked: "prefer to sleep," "too little time," and "inconvenient serving hours." The females checked "too little time," "dieting to lose weight," and "inconvenient serving hours" in the order given.

Some of the "other" reasons for missing meals given by students in the order of their importance are:

Employees and meal service equipment not clean
Poorly prepared food
Have class at same time
Monotony of menus
Unreasonable workers behind serving table
Lost meal ticket
Often run out of food
Work on homework
Busy
Food is stale
Accustomed to two meals a day
Approximately 45 per cent of both males and females snack occasionally; 16.2 per cent of both males and females snack once a day; a larger number of females ( 22 per cent) than males (16.2 per cent) snack twice a day; approximately 15 per cent of both male and female students snack three or more times per day. See Table 14.

The reason, "I'm hungry," was checked an overwhelmingly high number of times as the reason for eating between meals. See Table 15 . The reason, "dislike the food served in the dining hall," ranked second in importance; "to substitute for a meal missed," was third; and "dislike the dining hall atmosphere" was fourth for both males and females.

Table 14 Frequency of eating between meals

| FREQUENCY | NUMBER OF SUBJECTS <br> Female |  |
| :--- | :---: | :---: |
| Male | $\%$ | $\%$ |
| Never | 6.1 | 1.9 |
| Occasionally | 46.6 | 41.7 |
| Once a day | 16.2 | 16.2 |
| Twice a day | 16.2 | 22.0 |
| Three or more times per day | 14.9 | 16.7 |
| No response | 0.0 | 1.5 |
| Total | 100.0 | 100.0 |

Table 15 Reasons subjects ate between meals *

| FREQUENCY | NUMBER OF SUBJECTS <br> Female |  |
| :--- | :---: | :---: |
| Does not apply | 13 | 8 |
| To be sociable | 18 | 12 |
| To substitute for a meal missed | 78 | 125 |
| To relieve boredom | 10 | 41 |
| Friends offer me snacks | 15 | 24 |
| From habit | 34 | 56 |
| No resistance to food | 20 | 17 |
| Dislike the dining hall <br> atmosphere | 35 | 58 |
| Dislike the food served in | 82 | 143 |

Table 15 (Continued)

| FREQUENCY | Male | NUMBER OF SUBJECTS <br> Female |
| :--- | :---: | :---: |
|  | 20 | 33 |
| Nervousness | 8 | 18 |
| I'm hungry | 100 | 155 |
| No response | 2 | 5 |

* Each subject was allowed to check a maximum of four reasons.

The results shown in Tables ll-15 strongly suggest that the high number of food dislikes exists because the students are dissatisfied with the food more than with the environmental factors in their dining hall. A predominance of commonly recognized food dislikes also existed in this population. Therefore, all of the blame for the poor food acceptance should not be placed on the food service management.

## CHAPTER V

## SUMMARY AND CONCLUSIONS

Predominantly, the students at Langston University who were included in this survey have the following backgrounds: urban origin, low to average income level, and limited travel experience. See Appendix D. In addition, the majority of these students are females, less than 23 years old, and their parents have completed up to- or less than- a high school education. Those students who choose some foods daily from each food group far exceed those who do not choose from each group, but the choices of the students who do eat some foods daily from each group do not include a wide variety of fruits and vegetables.

By comparing the preferences of these students using several different variables inherent in the population, the author was able to determine their patterns of food likes and dislikes. A preponderance of food dislikes exists in this survey population. In descending order, the foods disliked most are: dark green and yellow vegetables, combination meat dishes, organ meats, pudding-type desserts, cooked cereals, canned fruit, cheese, and buttermilk. In contrast to their dislikes, the foods liked most are: meats without extenders, hot breads and plain white bread, fresh fruit, pies and cobblers, ice cream, hot chocolate and milk. The investigator believes that the expressed preferences of these students imply dislike for the way the
way the foods are prepared and served rather than complete dislike for so many foods. Additionally, many of these respondents are unfamiliar with a large number of the food items.

Two very interesting preferences were noted in this population. Some foods, for example chitterlings, that were strongly disliked by one segment of the population were strongly liked by an equal number of respondents. In other words, these foods if liked at all were strongly liked and if disliked at all were strongly edsnted. To a large extent, milk is a highly preferred food among this population. The author had expected this age group to dislike milk.

Sex was one of the variables used to study the preferences of this group. There does not appear to be a major difference between the food preferences of the male subjects and those of the female subjects.

Where a person has lived and the places he has visited appear to influence his preferences. Students in this study who had lived in rural areas had fewer dislikes than those students from urban areas. The food preferences of the subjects who have traveled extensively are more like those of the students of urban origin than they are like those with limited travel experience. Those who have traveled extensively indicated that they dislike more foods than the group with the limited travel backgrounds.

Age makes a difference when determining food likes and dislikes. In general, a considerable difference was evident between the likes and dislikes of the 18 year old subjects and the 25 year old subjects.

The level of income does not make as much difference as the author had expected. The food likes and dislikes are approximately the same for each of the four income levels that were considered in this study.

Education of the mother influences preferences more than the education of the father. As the education of the father increased, the preferences of the students remained nearly the same; as the education of the mother increased, the food dislikes of the students. increased immensely.

There is a difference in the food likes and dislikes of the students of the different college classifications. Freshmen tend to have preferences more like those of the juniors and seniors, whereas the sophomores have much more dislikes than either of the three other classification levels.

The students who eat some foods daily from each of the four food groups have fewer food dislikes than their contrast group. These students choose a better variety of foods each day and they also prefer a wider variety of foods.

## Recommendations

For these two reasons, the author recommends that a study be conducted to compare the general food likes and dislikes of this group of students to their preferences for the menu items served in their dining hall: (1) These students indicated a dislike for nearly onehalf of the foods presented on the food preference list; (2) The majority of the students expressed extreme dissatisfaction toward the environment and toward the food service in their dining hall.

The author feels that the findings from this study are strong enough to make further recommendations as follows:

The food preferences of the students at Langston University should be given immediate and concentrated attention. Frequency with which menu items are used should be closely evaluated as well as the way in which the food is prepared and served.

Detailed examination needs to be given to the attitude and appearance of the personnel and the sanitation of the dining hall. This complaint from the students should not go unnoticed.

It is also recommended that the University give consideration to the need for nutrition education for these students. Any group with so many food dislikes (no matter what the cause) should be taught the importance of the diet to their health and well-being.

## A SELECTED BIBLIOGRAPHY

(1) Adelson, S. F.: Changes in diets of households, 1955-65: implications for nutrition education today. Journal of Home Economics 60: 448, 1968.
(2) Allen, D. E., Patterson, Z. J., and Warren, G. L.: Nutrition, family commensality, and academic performance among high school youth. Journal of Home Economics 62: 333, 1970.
(3) Babcock, C. G.: Attitudes and the use of food. Journal of the American Dietetic Association 38: 546, 1961.
(4) Bailey, R. C.: What do students like? Survey what you serve. College and University Business 44: 98, 1968.
(5) Beal, V. A.: A critical view of dietary study methods. Food and Nutrition News. (National Live Stock and Meat Board) 40: 1, 1968.
(6) Best, J. W.: Research in Education. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1959.
(7) Birt, D. P.: Development of a scale to measure attitudes toward institutional food. M. S. thesis. Manhattan: Kansas State University, 1966.
(8) Blewett, G. W. and Schuck, C.: A comparison of the food consumption of men and women college students. Journal of the American Dietetic Association 26: 525, 1950.
(9) Bogert, L. J., Briggs, G. M., and Calloway, D. H.: Nutrition and Physical Fitness. Philadelphia: W. B. Saunders Company, 1966.
(10) Briggs, G. M., ed.: Recommendations of panels on nutrition education. The White House Conference on Food Nutrition and Health. Journal of Nutrition Education 1: 24, Winter, 1970.
(11) Brown, E. L.: College students look at the basis for their food habits. Journal of Home Economics 59: 784, 1967.
(12) Carr, M. and David, P.: Hunger in America. New York: The New York Times CXVII: 95, Section L. Wednesday, May 28, 1968.
(13) Chang, C. I.: A study of food intake patterns of selected I.S.U. students. M. S. thesis. Normal: Illinois State University, 1966.
(14) Clark, F.: A scorecard on how we Americans are eating. In Food For Us All. The Yearbook of Agriculture, p. 266-272. Washington, D. C.: U. S. Government Printing Office, 1969.
(15) Committee on Food Habits: Manual for the Study of Food Habits. Washington, D. C.: National Research Council. National Academy of Sciences, 1945.
(16) Dickens, D., Fanelli, A., and Ferguson, V.: Attractive menu items. Journal of the American Dietetic Association 30: 881, 1954.
(17) Eindhoven, J., and Peryam, D. R.: Measurement of Preferences for food combinations. Food Technology 13: 379, 1959.
(18) Eppright, E. S.: Factors influencing food acceptance. Journal of the American Dietetic Association 23: 579, 1947.
(19) Eppright, E., Pattison, M., and Barbour, H.: Teaching Nutrition. Ames, Iowa: The Iowa State University Press, 1963.
(20) Evans, K. M.: Planning Small-Scale Research. Exploring Education. London: King, Thorne and Stace Ltd., 1968.
(21) Fincher, L. J. and Rauschert, M. E.: Implications of the survey for nutrition education. Nutrition Program News (USDA) September-October, 1969.
(22) Food and Nutrition Board: Recommended Dietary Allowances, Seventh Revised Edition, 1968, National Academy of Sciences, Publication 1694, 1968.
(23) Galfo, A. J. and Miller, E.: Interpreting Education Research. Dubuque, Iowa: Wm. C. Brown Company, 1965.
(24) Graubard, M.: Man's Food: Its Rhyme or Reason. Dallas: The Macmillan Company, 1943.
(25) Gray, C. E. and Dubois, R.: A study of plate waste in a college dining room. Journal of the American Dietetic Association 23: 330, 1947.
(26) Griswold, R. M.: The Experimental Study of Foods. Dallas: Houghton Mifflin Company, 1962.
(27) Hall, I. S. and Hall, C. S.: A study of disliked and unfamiliar foods. Journal of the American Dietetic Association 15: 540, 1939.
(28) Haseba, J. and Brown, M. L.: College students breakfasts. Journal of the American pietetic Association 53: 334, 1968.
(29) Hill, M. M.: Creating good food habits - start young, never quit. In Food for Us All, The Yearbook of Agriculture, p. 260-265. Washington, D. C.: U. S. Government Printing Office, 1969.
(30) Hill, M. M. ed.: Discussion and evaluation at nutrition education conference. Nutrition Program News. (USDA) July-August, 1967.
(31) Hill, M. M. ed.: Nutrition education conference. Nutrition Program News. (USDA) MaymJune, 1967.
(32) Hinton, M. A., et al.: Eating behavior and dietary intake of girls 12 to 14 years old. Journal of the American Dietetic Association 43: 223, 1963.
(33) Hodges, R. E. and Krehl, W. A.: Nutritional status of teenagers in Iowa. American Journal of Clinical Nutrition 17: 200, 1965.
(34) Howl, G.: Factors which affect the nutriture of secretaries who are wives of students. M. S. thesis. Stillwater: Oklahoma State University, 1965.
(35) Huenemann, R. L.: Current American nutrition problems. The Journal of School Health 36: 104, 1966.
(36) Huenemann, R. L. and Turner, D.: Methods of dietary investigation. Journal of the American Dietetic Association 18: 562, 1942.
(37) Jerome, N. W.: Food habits and acculturation: Dietary practices of southern-born negroes residing in a northern metropolis. Ph.D. dissertation. Madison: University of Wisconsin, 1967.
(38) Jones, L. V., Peryam, D. R., and Thurstone, L. L.: Development of a scale for measuring soldiers' food preferences. Food Research 20: 512, 1955.
(39) Knickrehm, M. E., Cotner, C. G., and Kendrick, J. G.: Acceptance of menu items by college students. Journal of the American Dietetic Association 55: 117, 1969.
(40) Lamb, M. W.: Food acceptance, a challenge to nutrition education -- a review. Journal of Nutrition Education l, No. 2: 20, Fall, 1969.
(4I) Lamb, M. W., Adams, V. J., and Godfrey, J.: Food preferences of college women. Journal of the American Dietetic Association 30: 1120, 1954.
(42) Leverton, R. M.: Basic nutrition concepts. Journal of Home Economics 59: 346, 1967.
(43) Litman, T. J., Cooney, J. P., and Stief, R.: The views of Minnesota school children on food. Journal of the American Dietetic Association 45: 433, 1964.
(44) Lowenberg, M. E., et al.: Food and Man. New York: John Wiley and Sons, 1968.
(45) Loyd, G., ed.: Thought for food: making U. S. hunger a hasbeen. Today's Health 47: 38, 1969.
(46) McCune, E.: Food preference survey: guide to better menus. Hospitals 34: 70, 1960.
(47) McCune, E.: Patients' and dietitians' ideas about "quality" food. Journal of the American Dietetic Association 40: 321, 1966.
(48) McGarth, G. D., Jelinek, J. J., and Wochner, R. E.: Educational Research Methods. New York: The Ronald Press, 1963.
(49) Magrabi, F. M.: The image of home economics courses as general education. Journal of Home Economics 62: 43, 1970.
(50) Martin, E. A.: Nutrition in Action. Chicago: Holt, Rinehart, and Winston, 1965.
(51) Mayer, J.: Dr. Mayer's letter to President Nixon. Nutrition Today 4: 17, Winter 1969-70.
(52) Mayer, J.: Priorities in nutrition. Food and Nutrition News. (National Live Stock and Meat Board) 41: 1, 1969.
(53) Mayer, J.: Report from the White House Conference. Nutrition News (National Dairy Council) 33: 2, April, 1970.
(54) Mead, M.: The problem of changing food habits. In The Problem of Changing Food Habits. Bulletin of the National Research Council Number 108, p. 20-29. Washington, D. C.: National Acadeny of Sciences, 1943.
(55) Mitchell, J. S.: A comparison of a la carte and contract food service at OSU. M. S. thesis. Stillwater: Oklahoma State University, 1962.
(56) Moore, M C., Beasley, C. D. H., and Moore, E. M.: Why the boys? Journal of Home Economics 62: 338, 1970.
(57) National Dairy Council: Factors influencing adolescent food habits. Dairy Council Digest 36: No. 1, January-February, 1965.
(58) Peryam, D. R. and Girardot, N. F.: Advanced taste test methods. Food Engineering 24: 58, 1952.
(59) Peryam, D. R. and Pilgrim, F. J.: Symposium, studies in food science and technology. 1. The methodology of sensory testing. Food Technology 11: Suppl. 9, 1957.
(60) Peterson, M. S.: Food G. I.'s like. . . and don't. Food Engineering 40: 76, 1968.
(61) Pilgrim, F. J.: What foods do people accept or reject? Journal of the American Dietetic Association 38: 439, 1961.
(62) Prideaux, J S.: Student attitudes toward residence hall dietitians and directors as related to food acceptance. M. S. thesis. Manhattan: Kansas State University, 1965.
(63) Rasmussen, C. L.: Man and his food: 2000 A. D. Food Technology 23: 56, 1969.
(64) Schaefer, A. E.: Malnutrition in the USA? Nutrition News. (National Dairy Council) 32: No. 4, December, 1969.
(65) Schaefer, A. E.: The national nutrition survey. Journal of the American Dietetic Association 54: 371, 1969.
(66) Schaefer, A. E., and Johnson, O. C.: Are we well fed? The search for the answer. Nutrition Today 4: No. 1, 2, Spring, 1969.
(67) Schuck, C.: Food preferences of South Dakota college students. Journal of the American Dietetic Association 39: 595, 1961.
(68) Schutz, H. G.: Preference ratings as predictors of food consumption. American Psychologist 12: 412, 1957.
(69) Sebrell, W. H.: Recommended dietary allowances - 1968 revision. Journal of the American Dietetic Association 54: 103, 1969.
(70) Spritzler, M., ed.: Black studies: how colleges define it. School and College Food Management 6: 42, 1970.
(71) Steinberg, S. S.: "Are you with it?" What's New in Home Economics 30: 36, February, 1966.
(72) Stiebeling, H. K. and Dreis, T. A.: Habit - and more. In Food. The Yearbook of Agriculture, p. 631-635. Washington, D. C.: U. S. Government Printing Office, 1959.
(73) Todhunter, E. N.: Child feeding problems and the school lunch program. Journal of the American Dietetic Association 24: 422, 1948.
(74) Travers, R. M. W.: An Introduction to Educational Research. New York: The Macmillan Company, 1969.
(75) Trulson, M. F. and McCann, M. B.: Comparison of dietary survey methods. Journal of the American Dietetic Association 35: 672, 1959.
(76) Trulson, M.: Panel discussion: appraisal of food intake. American Journal of Clinical Nutrition 11: 363, 1962.
(77) U. S. Bureau of the Census: Income Distribution in the United States, (A 1960 Census Monograph) U. S. Government Printing Office, Washington, D. C., 1966.
(78) U. S. Bureau of the Census: U. S. Census of Population: 1960. Subject Reports. Sociomeconomic Status. Final Report PC (2) - 5C. Washington, D. C.: U. S. Government Printing Office, 1967.
(79) United States Department of Agriculture: Daily food guide. (Consumer and Marketing Service; Agricultural Research Service). Washington, D. C.: U. S. Government Printing Office, 1966.
(80) Wood, K. R. and Peryam, D. R,: Preliminary analysis of five army food preference surveys. Food Technology 7: 248, 1953.
(81) Young, C. M., et al.: A comparison of dietary study methods (dietary history vs. seven day record vs. 24 -hour recall). Journal of the American Dietetic Association 28: 218, 1952.
(82) Young, C. M.: Dietary study of Cornell University women. Journal of the American Dietetic Association 22: 25, 1946.
(83) Young, C. M. and La Fortune, T. D.: Effect of food preferences on nutrient intake. Journal of the American Dietetic Association 33: 98, 1957.
(84) Zunnich, M. and Fults, A. Cs: Food preferences of students from lower-socieeconomic groups. . . A geographic study. Journal of Home Economics 61: 47, 1969.

APPENDIX A
CORRESPONDENCE

Dr. William E. Sims, President Langston University
Page Annex - Administration Langston, Oklahoma 73050

Dear Dr. Sims:
As a graduate student in the Department of Food, Nutrition and Institution Administration at Oklahoma State University, I am required to plan, conduct, and report six hours of thesis research. A knowledge of food habits, especially preferences of Langston University students, is of high importance to me as I plan to return to the faculty there following completion of the Master's degree. My adviser, Dr. Helen F. Barbour, has granted me permission to do the research in this area of my interest.

May I discuss with you some implications the study may have for Langston University and the possibility of conducting the study there? If it is convenient for you, I can meet at any of the following times:

| Monday | $8: 00-8: 45 \mathrm{a} . \mathrm{m}$. |
| :--- | ---: |
| Tuesday | $3: 30-4: 30 \mathrm{p} . \mathrm{m}$. |
| Wednesday | $8: 00-8: 45 \mathrm{a} . \mathrm{m}$. |
| Thursday | $1: 45-2: 45 \mathrm{p} . \mathrm{m}$. |
| Friday | $4: 15-5: 00 \mathrm{p} . \mathrm{m}$. |
| Saturday | $10: 00-$ |

Thank you for your consideration of this request.
Yours very truly,
(Mrs.) Glenda W. Warren Graduate Teaching Assistant FNIA Department
Home Economics East, Room 210
Oklahoma State University
Stillwater, Oklahoma 74074

Dr. Helen F. Barbour, Professor
FNIA Department.
Home Economics West, Room 416
Oklahoma State University
Stillwater, Oklahoma 74074
Phone: Area 405, 372-6211, x-6096

APPENDIX B
QUESTIONNAIRE

1. RESPONDENT NUMBER $\qquad$

QUESTIONNAIRE: Food Preferences of Students Eating in the Dining Hall at Langston University. This is a part of a thesis study which will aid the college in improving its food and nutrition services to you students.
DIRECTIONS: For the following set of questions, please check ( $V$ ) or complete (fill in) the answer which best applies to you. Answer every question, please. Disregard the numbering systen; they are printed for purposes of analysis.

Notice that you are not to write your name on any part of the questionnaire. This is necessary so that your identity remains confidential.

## SECTION I

I. How often did you miss meals during the fall and/or spring semesters?

|  | Never | Occasionally | Once a Week | Twice a Week |
| :--- | :--- | :--- | :--- | :--- | | Three or more times |
| :---: |
| per Week |

II. 5 Why did you miss meals? Give four (4)

6 reasons in order of importance. Let
7 one (1) equal your most important
3 reason.
. 1 This question does not apply to me . 2 Inconvenient serving hours
. 3 Too little time
.4 Go off campus
. 5 Like to eat out . 6 Dislike food
. 7 Prefer to sleep
.8 Dieting to lose weight
.9 Work at mealtimes . 10 Other (please specify) $\qquad$
IV. 10 Number the four (4) reasons why you eat

11 between meals. Let one (1) equal your
12 most important reason.
13
$\qquad$ . 1 Does not apply to me
. 2 To be sociable
.3 To substitute for a meal missed
. 4 To relieve boredom
5 Because my friends offer me snacks
6 From habit
.7 Because of no resistance to food
. 8 Dislike the dining hall atmosphere
9 Dislike the food served in the
dining hall
10 Want to gain weight
__. 11 Because of nervousness
$\qquad$ . 12 Because I'm hungry
V. 14 In general, how do the meals served in the dining hall compare with the meal's you were served at home?
. 1 Much better
$\qquad$ . 2 Slightly better
. 3 About the same
. 4 Slightly worse 4 Much worse
VI. 15 Did you expect the college food to be about the same as the food you had at home?
$\qquad$ .1 Yes
3 Had given it no thought
VII. 16 Which word best describes your appetite at mealtime?
$\qquad$
.1 Very
$\qquad$ . 3 Fair
.4 Poor
. 5 No appetite
VIII. 17 How often is Soul food served in the dining hall?
.1 Never

| .1 Never |
| :--- | 2 Occasionally

. 3 Once a week
. 4 Twice a week
.5 Three or more times per week
IX. Circle the number which best indicates the number of servings you eat each day from the following classes of food.

CLASS OF FOOD
18. Milk
includes cheese,
ice cream, custard, etc.
19. Eggs
20. Meat
$\begin{array}{llllll}.0 & .1 & .2 & .3 & .4 & .5\end{array}$
includes dry beans
or peas, peanut but-
ter, etc.
21. Citrus fruits
oranges, grapefruit, etc.
22. Other fruits apples, bananas, etc.
23. Vegetables
dark green or yellow
24. Other vegetables potatoes, lettuce, etc.
25. Bread
$\begin{array}{llllll}.0 & .1 & .2 & . & .4 & .5\end{array}$
26. Cereal
$\begin{array}{llllll}.0 & .1 & .2 & .3 & .4 & .5\end{array}$
X. 27 Which term best describes the breakfasts served in the dining hall?
$\qquad$
. 1 Very good
$\qquad$ 2 Good
$\qquad$ 3 Fair
4 Poor
5 Very poor

28 Which term best describes the lunches served in the dining hall?
$\qquad$
. 1 Very good
2 Good
.3 Fair
$\qquad$ 4 Poor
5 Very poor

29 Which term best describes the dinners served in the dining hall?
$\qquad$ 1 Very good
$\qquad$ 2 Good.3 Fair
4 Poor

30 Which term best describes the meals in the dining hall?
$\qquad$
XI. A set of four numbered columns has been provided. Each number represents a degree of satisfaction as following: 4, very satisfactory; 3, satisfactory; 2, unsatisfactory; 1, very unsatisfactory.

Place a check $(\sqrt{ })$ under the column which best indicates your satisfaction with your dining hall.
. 4 . 3 . 1
A. Dining Hall.

31 Noise
32 Odors

-     -         -             -                 -                     - 

33 Music
34 Serving hours
35 Attitude of personnel $\qquad$
36 Appearance of personnel

37 Neatness of dining hall

38 Lighting
39 Comfort of chairs


40 Height of tables (comfort)

41 Temperature of room
42 Ventilation
XI. (continued)
B. Food

43 Appearance of food $\qquad$
44 Temperature of food ________
45 Variety of food
46 Quantity of food _____ _ _ _

47 Seasoning of food
48 Color of food
49 Texture of food
$\qquad$

50 Way food is served on plates
XII. Name two foods that you dislike. Briefly state the 51 main reason why you dislike each food listed.
.1. $\qquad$ .4. $\qquad$
. 2. $\qquad$ . 5. $\qquad$
.3.Does not apply
to me $\qquad$ .6.Don't know why $\qquad$

## SECTION II

XIII. As you read the following list of foods, place a check $(\sqrt{ })$ in the column which best indicates your preference. If you check any of the dislike columns, place the number of the principal reason why you dislike the food in the column checked. Choose from the possible reasons given below:
. 1 taste
.2 appearance
.3 smell
. 4 unpleasant association(s)
.5 moral or religious reason(s)
. 6 difficult to eat
. 7 manner in which served
. 3 manner in which prepared





Food
282 Fruit Cocktail
284 Orange Juice
286 Vegetable (V-8) Juice
288 Grapefruit Juice
290 Cherry Cobbler
292 Peach Cobbler
294 Cream Pie
296 Sweet Potato Pie
336. Circle your age:

| 17 | or under | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 |
| 37 | 38 | 39 | 40 | or above |  |  |  |  |  |  |

337. Sex:
$\qquad$ .1 male 2 female
338. Race:
$\qquad$ . 1 black 2 other (specify $\qquad$ 1
339. Height:
___feet, plus inches
340. Weight:
$\qquad$ pounds
341. Glassification:
.1 freshman
$\qquad$ 1 freshman
. 2 sophomor
.4 senior 5 special
342. 343. From the following list of degrees, and fields of study, write the number which corresponds to your major field of study (If you haven't declared a major, indicate the field you think you will choose).

Arts and Science Division (Preparation for the Profession)
A. Bachelor of Arts Degree

1. Art
2. English
3. Music
4. History
5. Sociology
6. Pre-Law
7. Social Work
B. Bachelor of Science Degree
8. Biology
9. Business Administration
10. Chemistry
11. Mathematics
12. Pre-Medical
13. Pre-Dentistry
14. Medical Technology
15. Secretarial Science
16. Physics
17. Biochemistry

Education Division (Teacher Preparation)
C. Bachelor of Arts in Education
18. Art
19. Language Arts (English)
20. Music
21. Social Science
D. Bachelor of Science in Education
22. Biology
23. Business Education
24. Chemistry
25. Elementary Education
26. Health and Physical Education
27. Home Economics
28. Industrial Arts
29. Mathematics

## Applied Science Division (Preparation for Business and

E. Bachelor of Science Degree
30. Agricultural Economics
31. Animal Science
32. Industrial Arts
33. Engineering (Chemical, Electrical, etc.)
34. Data Processing
35. Electronic Technology
36. Pre-Nursing
2. Write the number which corresponds to your minor field of study (or your intended minor field if you haven't chosen).
343. Have you been a student at another college where you ate meals regularly?
$\qquad$ .1 Yes 2 No
344. Indicate up to three of the college classes where you have learned about nutrition.
. 1 I have not learned about nutrition
. 2 Biology
—__ 3 General Science
. 4 Home Economics
. 5 Health and Hygiene .6 Physiology
. 7 Physical Education
. 8 Other (specify $\qquad$ ()
345. Write your cumulative grade point average to one decimal place.
346. What is your marital status?
$\qquad$ . 1 never married
$\qquad$ 2 married
$\qquad$ .3 separated or divorced .4 widow or widower
347. What do your parents do for a living?
A. $\qquad$ Father's occupation (or male guardian)

Exactly, what does he do?
$\qquad$
B. $\qquad$ Mother's occupation
(or female guardian)
(If other than housewife) Exactly, what does she do?
$\qquad$
$\qquad$
348. Which best describes the gross annual income of your famity?

349. What was the highest year of schooling completed by your father (or male guardian) and mother (or female guardian)? Circle your answer.

| Mother | 01234567 | $\begin{aligned} & \text { High School } \\ & 89101112 \end{aligned}$ |
| :---: | :---: | :---: |
|  | College $13141516$ | Graduate $17 \quad 18 \quad 1920$ |
| Father | 01234567 | High School <br> 89101112 |
|  | College $13141516$ | Graduate <br> 17181920 |

350. Do your parents live together?
$\qquad$ .1 yes
.2 separated or divorced . 3 one is deceased .4 both are deceased
$\qquad$ .5 other (specify $\qquad$ _)
351. Have you ever served in the armed forces?
$\qquad$ .1 yes
352. What is your religion?
$\qquad$ . 1 Catholic
. 2 Jewish . 3 Protestant
. 4 Muslim
. 5 None
. 6 Other (specify $\qquad$ )

NOTE: HOMETOWN, for the next two questions refers to the place where most of your growing up years were spent.
353. Where is your hometown?

city
$\qquad$ state
354. Which best describes your hometown?
$\qquad$ .1 farm
. 2 rural, but not farm
$\qquad$ 3 town under 1,000
.4 town 1,000 to $4 ; 999$
5 town 5,000 to 9,999
. 6 town 10,000 to 24,999
7 town 25;000 to 99,000
$\qquad$ 8 town 100,000 or above
355. How many states (other than your homestate), within the United States, have you visited? Circle your answer.

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 |  |  |  |
| 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |  |  |  |  |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |  |  |  |  |  |  |

356. Before you came to college, who did most of the cooking for your family?
$\qquad$ .1 mother 2 sister
$\qquad$ 3 I did
$\qquad$ 4 other older relative . 5 other (specify $\qquad$ -)
357. Generally, how well did you enjoy meals at home?
_ 1 disliked very much .2 disliked moderately
. 3 disliked slightly
. 4 liked slightly
.5 liked moderately
. 6 liked very much

APPENDIX C
RAW DATA PUNCH CARDS


RAW DATA PUNCH CARDS (Continued)
Numbers used to identify the following:

| Sex: | $\begin{aligned} & 0=\text { No response } \\ & 1=\text { Male } \\ & 2=\text { Female } \end{aligned}$ |
| :---: | :---: |
| Classification: | $\begin{aligned} \text { Fresh } & =1 \\ \text { Soph } & =2 \\ \mathrm{Jr} & =3 \\ \mathrm{Sr} & =4 \end{aligned}$ |
| Income: | $\begin{aligned} & 1=\text { Under } \$ 3,000 \\ & 2=\$ 3,000-4,999 \\ & 3=\$ 5,000-9,999 \\ & 4=\$ 10,000 \text { and above } \\ & 5=\text { No response } \end{aligned}$ |
| Education of parents: | $\begin{aligned} & 1=\text { Grade school } \\ & 2=\text { High School (9-12) } \\ & 3=\text { College (13-16) } \\ & 4=\text { Graduate School (17-20) } \\ & 5=\text { No response } \end{aligned}$ |
| Size of hometown: | $\begin{aligned} & 1=\text { Rural } \\ & 2=\text { Urban } \\ & 3=\text { No response } \end{aligned}$ |
| Extent of travel: | $\begin{aligned} & 1=15 \text { and below } \\ & 2=\text { Above } 15 \\ & 3=\text { No response } \end{aligned}$ |

APPENDIX D
DISTRIBUTION OF THE POPULATION

| Variable | Number | Total* |
| :---: | :---: | :---: |
| Sex |  | 352 |
| Male | 148 |  |
| Female | 204 |  |
| Place of residence |  | 320 |
| Rural | 73 |  |
| Urban | 247 |  |
| Extent of travel |  | 320 |
| Limited | 276 |  |
| Extensive | 44 |  |
| Age |  | 350 |
| 18 and below | 57 |  |
| 19 | 89 |  |
| 20 | 84 |  |
| 21 | 59 |  |
| 22 | 25 |  |
| 23 | 18 |  |
| 24 | 8 |  |
| 25 | 10 |  |
| Income |  | 290 |
| Under \$3,000 $\$ 3,000-4,999$ | 36 |  |
| \$3,000-4,999 | 64 |  |
| \$5,000-9,999 | 111 |  |
| \$10,000 and above | 79 |  |
| Education of father |  | 295 |
| Grade school | 51 |  |
| High school | 138 |  |
| College | 74 |  |
| Graduate | 32 |  |
| Education of mother |  | 321 |
| Grade school | 35 |  |
| High school | 188 |  |
| College | 68 |  |
| Graduate | 30 |  |

DISTRIBUTION OF THE POPULATION (Continued)

| Variable | Number | Total* |
| :---: | :---: | :---: |
| Classification |  | 311 |
| Freshman | 126 |  |
| Sophomore | 77 |  |
| Junior | 95 |  |
| Senior | 54 | 350 |
| Selects foods from |  |  |
| four food groups |  |  |
| Do | 304 |  |
| Do not | 46 |  |

## Glenda Lou Warren I

Candidate for the Degree of
Master of Science

Thesis: FOOD PREFERENCES OF STUDENTS EATING IN THE DINING HALL AT LANGSTON UNIVERSITY

Major Field: Food, Nutrition and Institution Administration
Biographical:
Personal Data: Born in Idabel, Oklahoma, June 14, 1940, the daughter of Lillie Juanita and Joe Delmar Warren.

Education: Graduated as valedictorian from Booker T. Washington High School, Idabel, Oklahoma, in 1958; attended Wiley College in Marshall, Texas, 1958-59; received a Bachelor of Science Degree with distinction in Home Economics with a major in Vocational Home Economics Education from Langston University, Langston, Oklahoma in 1962; completed an intensive threemonth training program (two months at George Washington University in Washington, D. C. and one month at Marble, Colorado) with the American Peace Corps in 1962; completed the requirements for the Master of Science Degree in Food, Nutrition and Institution Administration at Oklahoma State University in May, 1971.

Professional Experience: Peace Corps Volunteer, Meen Bhawan Agricultural School, Kathwandu, Nepal, 1962-64; Homemaking Teacher, Nowlin Junior High School, Kansas City, Missouri, 1964-66; Instructor, Langston University, Langston, Oklahoma, 1966-69; Langston University Research Team, Langston, Oklahoma, 1967-69; Graduate Teaching Assistant, Oklahoma State University, Stillwater, Oklahoma, 1969-70.

Professional and Honorary Organizations: American Home Economics Association, Oklahoma Home Economics Association, Kappa Delta Pi, Alpha Kappa Mu, and Oklahoma Education Association.


[^0]:    * Each subject was allowed to check a maximum of four reasons.

