



Food preferences of students eating at Montana State University's dining halls
by Joan Phipps Hodgeboom

A thesis submitted to the Graduate Faculty in partial fulfillment of the requirements for the degree of
MASTER OF SCIENCE in Home Economics
Montana State University
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Abstract:

Food preferences of 700 students boarding at Montana State University dining halls in 1968 were determined. One hundred twenty foods consisting of entrees, desserts, salads, and fruits served at Montana State University's dining halls were included in the study. Two types of inventories were used. One inventory was used to determine the food preferences of the students. The other inventory showed frequency of food servings desired.

From the food scores obtained, weighted averages for each food were calculated for the sample population, the students served in the coed dining hall, and the students served in the dining halls serving only men or only women.

The most preferred and the least preferred foods were tabulated.

Foods altered little from their natural state were highly preferred by the population sampled. Desserts were the foods most often preferred. Fish entrees were not popular.

The men preferred more meats and desserts than the women.

The women preferred "waist watching" foods such as salads and fruits.

The type of dining hall, whether coed or not, had no apparent effect on the food preferences of the students. The food preference differences which did occur among dining halls were related to the sex of the students.

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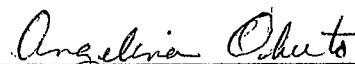
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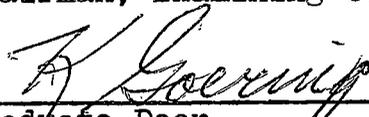
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ABSTRACT

Food preferences of 700 students boarding at Montana State University dining halls in 1968 were determined. One hundred twenty foods consisting of entrees, desserts, salads, and fruits served at Montana State University's dining halls were included in the study. Two types of inventories were used. One inventory was used to determine the food preferences of the students. The other inventory showed frequency of food servings desired.

From the food scores obtained, weighted averages for each food were calculated for the sample population, the students served in the coed dining hall, and the students served in the dining halls serving only men or only women. The most preferred and the least preferred foods were tabulated.

Foods altered little from their natural state were highly preferred by the population sampled. Desserts were the foods most often preferred. Fish entrees were not popular. The men preferred more meats and desserts than the women. The women preferred "waist watching" foods such as salads and fruits.

The type of dining hall, whether coed or not, had no apparent effect on the food preferences of the students. The food preference differences which did occur among dining halls were related to the sex of the students.

CHAPTER I

INTRODUCTION

IMPORTANCE OF STUDY

The past generation has seen many changes in the food industry. Frozen foods, convenience foods, better packaging and shipping, improved processing methods (32), newer and easier-to-use cooking equipment, and a greater variety of foods in the supermarkets are just a few of the changes. Changes have also taken place on the Montana State University campus. No choice of foods was offered students in the 1939 cooperative houses (23) at Montana State College. Choice of entrees, vegetables, fruits, salads, desserts, cereals, spreads, soups, and beverages are expected choice by the Montana State University students in 1968 (24) (Appendix A).

Unlike the students of the cooperative houses of 1939 who prepared their own menus, did their own grocery shopping, and prepared their meals and cleaned the dishes, Montana State University students walk from their rooms to the dining hall to find food prepared and waiting. At the serving area, they choose the foods they like, and then go to the dining area and eat. After they complete their meal, they load their trays on a conveyor belt or place them at designated areas. No clean up is required and students

are free to do what they want.

Even with these changes in planning, preparation, and serving of the foods, Montana State University students are not satisfied. It may be that the mechanics of the Food Service Department are not realized. It does not operate for the sole purpose of filling hungry students (3), but has a multiple role which it is constantly trying to improve. The meals have to be nutritionally adequate, appetizing, and appealing. By satisfying this role the department helps to fulfill the needs for food and nutrition which exert significant influence on performance in school activities, social maturation, and preparation for a vocation (2).

PURPOSE OF STUDY

The purpose of this study was to determine the food preferences of Montana State University resident hall students. "From the viewpoint of the educator and nutritionist, the challenge is how to make food wants coincide with nutritional needs . . . " (19). By serving meals which are more preferred by the students, a more rounded diet will be obtained, thus insuring a better intake of the daily food requirements (20, 40).

Past food citations emphasize the importance of knowing food preferences of the Armed Forces, hospitals, states, regions, colleges, and universities. The studies dealt with foods not as the institutions prepared and served them, but as they were prepared and served in past experiences of the subjects. A food preference study dealing with the foods as the University Food Service prepared and served them is important to both the Food Service Department and the students. Once food preferences of students are identified the following outcomes may occur:

1. Recipes can be improved.
2. Students could take better advantage of meals already paid for in the room-and-board plan of the University (20).
3. Students could spend less money on supplementary meals and snacks (20).
4. Less food may be wasted (29).
5. Students may have better health and work more efficiently (11).

For the purpose of this study it was hypothesized that:

1. There would be a variation in food preferences among dining halls.
2. There would be a variation in food preferences between sexes in the coed dining hall.

CHAPTER II

REVIEW OF LITERATURE

USES OF FOOD

Food is used not only to nourish our bodies for mental and physical growth. Food is used to:

1. relieve hunger (19, 4)
2. cement friendship (19, 4)
3. celebrate (19)
4. honor someone (19)
5. punish (19)
6. show trust and distrust (5)
7. express direct feelings such as:
 - a. anxiety (5, 35)
 - b. depression (5)
 - c. rage (5)
 - d. fear (5, 35)
 3. love (5)

Many food aversions and preferences are developed through the uses of foods. These food attitudes may be a detriment to the well-being of the body. Understanding the uses of foods and their relationship to the formation of food attitudes could be a vital part of food and nutrition courses.

FORMATION OF FOOD ATTITUDES

Food attitudes are formed in many ways starting at

infancy and developing throughout life. Without guidance, training, and understanding these attitudes may lead to hunger, malnutrition, and other factors which are attributed to a poor diet. Poor or improper food attitudes may lead to food aversions. These aversions, according to a study by Babcock (5), are deep-rooted and do not and cannot be changed in a day.

It would be simpler to prevent food aversions than to correct them once they are formed. Thus, studies have been made to determine reasons for food attitudes. Factors involved in contribution to the formation of food attitudes are:

1. biochemical (31)
2. physiological (31)
3. social (22, 31)
4. educational (25, 31)
5. mental (31)
6. sexual (31)
7. developmental (31)
8. denominational (31)
9. environmental (31)
10. ancestral (31)
11. regional (31)
12. associational (31)

The development of food attitudes starts in the home. If food aversions are to be prevented, the home, then, would be the place to start. Allen (2, p.336) reveals that the development and maturation of the youth toward positive food attitudes are affected by, "the process of preparing, serving, and sharing family meals in the home".

A mother has the greatest influence on her small children. She prepares and serves the meals, thus, the children are dependent upon her for developing the proper food attitudes. If the proper attitudes are conveyed, an adequate diet will follow. The nutritional knowledge and attitudes of mothers effects the quality of diets of their pre-school children as shown in the study by Eppright (13). This study brought out the facts that children who had poor diets generally had a mother who had had very little nutritional knowledge, had unfavorable attitudes toward meal planning and food preparation, and had a highly permissive attitude toward the eating behavior of her children.

A survey of food preferences of Florida men was conducted by Abbott (1, p.8). He found that those fruits:

of lowest acceptance were those not grown in the state, such as gooseberries, raspberries, and currants, and those of recent introduction and limited distribution as the avocado and persimmon.

People tend to prefer and accept those foods which are familiar to them. Schuch's (31) study reinforces the concept that people do not accept unfamiliar foods as well as familiar foods. Smith (35) found this true in his study, "Notes on Food Aversions and Body Build." These studies emphasize the need for nutritional education of the parents as well as the youngsters. They relate back to the studies (2, 15, 32) of parental influence on young children. Schuch (31, p.596) emphasizes this by saying, "Food likes and dislikes of people tend to reflect the food practices in the homes in which they grew up." Thus, if one food is accepted over another, it may be due to the fact that it was served more often in the home.

Nutrition education or knowledge is not the only factor associated with proper eating behavior. The family comes into focus when Hilton (17) studied the eating behavior of girls and what influenced this behavior. He found:

The higher the scores on family relations, emotional stability, and adjustment to reality, the fewer meals missed and the better the nutritional quality of food chosen.

Reinforcing Hilton's (17) study on emotional stability are studies by Smith and Wallen. Smith (34) found that persons with high manifest anxiety also had numerous food

aversions. Women had more food aversions than did the men. Wallen's (37, p.312) study results were quite similar, though he used strictly male subjects. His study went as follows:

A short food aversion checklist was administered to 227 Marine recruits who were later discharged on psychiatric grounds. A randomly selected group of 789 recruits also filled out the list. Comparisons show that the discharged men marked a significantly greater number of aversions than did the random group. High mean aversion scores were found in a variety of disorders including epilepsy, various types of neurosis, and schizoid personalities. Further study of intra-cranial injury cases suggests that aversion scores are higher in those with poor emotional control.

Social classes are still another influence of food attitudes. Again this is correlated to the family. Feldman (15, p.329) studied the food attitudes in different social classes of people in hospitals. His results showed:

Almost all studies have shown that individuals from the less privileged social classes are much more likely to be satisfied with hospital food than are individuals from higher socioeconomic backgrounds. . . . Patients who normally eat elaborately prepared and expensive meals are obviously going to find it more difficult to adjust to hospital fare.

Feldman believed that his results could be interpreted not only for hospitals but for most institutions where large quantities of foods are prepared.

FOOD PREFERENCE STUDIES

Inventories, questionnaires, and investigations of food preferences have been carried out in school systems (12, 16, 31, 35), states, Armed Forces, and hospitals. It was hoped the results of the food preference studies would aid students eating in dining halls by serving more preferred foods, dietitians in planning menus, those people involved in the different food preparation procedures, teachers, food buyers, and processors--anyone working in the vast field of food and nutrition.

Clow (9, p.1) compiled data from one thousand questionnaires on food preferences in four areas of Montana. She believed her study was of special importance to teachers.

She states:

The teacher of foods, in either high school or college, may use these preferences as a guide in developing and teaching new ways to serve the already acceptable and nutritious foods and as a challenge to prepare the less acceptable, but nutritious, foods in ways which would appeal to more people.

The University of the Pacific (36) conducted a survey of lunch items. They believed their results would help in menu planning.

Menu planning was also aided by a study by Abbott (1). His study surveyed food preferences of native born Florida

males. He worked in cooperation with the Committee on Food Research, Quartermaster Food and Container Institute for the Armed Forces. Foods most preferred, not liked, and not tried were tabulated. His results revealed the most preferred meats to be beef, veal, fresh and cured pork, chicken, and turkey. Those meats not preferred were lamb, tongue, and heart. Fish and eggs were accepted by all groups. Oranges, peaches, bananas, strawberries, grapefruit, apples, and pineapple were preferred fruit.

Peryam (28) also tested the men in the Armed Forces. In his study he asked the men for their desired frequency of serving for each of the foods. An 8 point scale was used. A choice ranging from twice a day to rarely to never was given each man for each food. This inventory helped the Quartermaster Food and Container Institute of the Armed Forces in determining which foods would be served more often, which should be served least often, and which should be either eliminated altogether from the menu or improved so that it would be accepted by the men.

Fikes (16) made a study of college students attending the University of Alabama. She conducted the study because she believed food preferences of students reflect their food attitudes. To successfully feed students, their food likes and dislikes must be known. Fikes (16) found the two sexes

had different food preferences. Those foods which were preferred by the men were ham, oranges, turkey, ice cream, and fresh corn. The foods preferred by the women were pecans, pies, lemons, tangarines, and cookies. When men and women eat together the differences in food preferences may not be so marked, but, to insure best nutritional results for both sexes the differences in food preferences must be known.

Fikes (16) did not ask the students to what degree they liked the foods. Her results showed that women liked lesser or equal percentages of foods than men in all food groups. If she had pursued the degree to which they liked or disliked the foods, her results may have been comparable to the results found in studies by Wear and Barlow. Wear (38) found that by age comparison of college students, a higher percentage of foods were well liked by the women than by the men. Barlow (6) also found that women liked more foods to a greater extent than did the man. The men liked the foods but not as much. When desserts were categorized, Eppright (12) found them to be liked equally well by both men and women except for cookies which were preferred to a higher degree by the women.

Past studies of food preferences may be of use or benefit to present studies. Thus, the general results of a

few studies will be briefly mentioned here.

Wolfe's (40, p.27 and 33) study of food preferences of the students of Glenville State College in West Virginia pointed out that: "The meats 'liked' least were the organ meats, lamb, and oysters. . . . desserts ranked highest in percentage of acceptance by the students."

The backbone of the Iowans' diet in Eppright's (12, p.873) study was: "meat, bread, potatoes, dessert and beverage other than milk."

Litman's (22) study on the "View of Minnesota School Children on Food", revealed foods which were frequently scored as those usually being eaten. These foods were dairy products, fruits, vegetables, meats, eggs, and potatoes.

Roast beef, baked ham, roast turkey, beef pot roast, ground beef, and macaroni and cheese were the top ranking main dishes from a food preference study of 131 college women by Capps (8).

Once evaluated, food preferences are left up to the food service staff to follow the objectives of good food preparation as illustrated by West (39, p.32):

- (1) conserve the nutritional value of the food;
- (2) improve the digestibility;
- (3) develop and enhance its flavor;
- (4) increase or at least retain the attractiveness of its original color, form and texture;
- and (5) free it from injurious organisms and substances.

The combination of the two forces, inventory and good food preparation, may produce acceptable menus for the students to help insure their physical and mental health for better study habits, attitudes, emotional growth, and social welfare. It must never be forgotten that no one can be completely satisfied all the time. Food attitudes vary greatly as Beal (7, pp. 88,89) points out:

The nose of the moose is considered a dainty mouthful in Canada. Sharks' fins, birds' nests, and ducks' tongues are eaten in China. The Chumars of India eat the flesh of animals that have died of disease, and will touch no other meat. Elephant's trunk is a table dainty in Africa. Rat pie may be procured in Paris restaurants, and the Negroes of Brazil, like the black people of Australia, eat every rat they can catch. In the last-named country, kangaroo tail is regarded as a luxury for the dinner tables of even wealthy and cultivated Caucasians.

Could a menu be produced to completely satisfy all people? No, as Peryan (26, p.717) explains:

It is, highly unlikely that any single generalized method for gaining the acceptance of novel foods will be forthcoming. Instead, research and applied efforts will have to concentrate on specific, related subproblems. One doesn't change food habits in general; one achieves a change of behavior toward a particular item or group of items, in a particular direction, in a particular situation. Each problem will continue to require its own analysis.

CHAPTER III

DESIGN OF STUDY

This study was designed to discover the food preferences of students boarding at Montana State University dining halls. The foods were prepared and served to the students by Montana State University's Food Service Department.

SAMPLE

There were 2,747 students boarding at three dining halls, Hannon, Hedges, and Lewis and Clark at Montana State University during the 1968 winter quarter. The 451 women residing in Hapner and Hannon dormitories ate in Hannon dining hall; the 1,496 students from North Hedges, a women's dormitory, and South Hedges and Roskie, men's dormitories, ate at Hedges dining hall; and the 790 male students residing in Culbertson-Mullan¹ and Langford dormitories ate in the Lewis and Clark dining hall. Approximately 100 students were selected at random from each dormitory.

Sampling procedures were employed to insure generality about food preferences of the entire student body eating at

¹Culbertson-Mullan will be referred to throughout the thesis as Mullan. It represents one dormitory in this study.

the dining halls. It was determined a total of 700 students, 100 students from each dormitory could provide the desired information. It was believed that such a random sample would represent the food preference for the entire dormitory. The selection of students from each dormitory was made by the dormitory administrator. Each selected two floors from the dormitory housing approximately fifty students. These were the students used in the study.

PROCEDURE FOR COLLECTING DATA

Selection and Development of Inventories

Inventories had to meet several criteria. They had to:

1. compensate for the large and varied population found at Montana State University,
2. be meaningful to persons of various ages, and
3. be easy to complete.

Two inventories were determined to be necessary. One inventory had to produce results of general levels of food preferences. Jones (18, p.36) determined that words such as best, wonderful, favorite, preferred, good, welcome, tasty, bad, neutral, don't care for it, only fair, etc, could be used on a 9 point hedonic scale to "select suitable descriptive adjectives for use as tables of successive intervals on subsequent preference schedules."

According to Peryam (27, pp. 10 and 12): "The hedonic scale is designed to measure human behavior potential not characteristics of food. Response is determined in part by his general attitude toward the food type based on his prior experiences with it."

The advantages of the 9 point hedonic scale are (28, p.14):

1. its simplicity which makes it suitable for use with a wide range of populations
2. subjects can respond meaningfully without previous experience
3. in contrast to other methods, within broad limits, the results are meaningful for indicating general levels of preferences.

Thus, a 9 point hedonic scale was chosen for Food Attitude Inventory A. This inventory rated food likes and dislikes starting with 9 as like extremely to 1 as dislike extremely (Inventory A is included as Appendix B).

The second inventory, Food Attitude Inventory B (see Appendix C), dealt with how often the students would like to eat the foods served at Montana State University dining halls. The assumed value of an inventory of this sort was based on the success in its use by Peryam (28) in cooperation with the Quartermaster Research and Engineering Command, Quartermaster Food and Container Institute for the Armed Forces. This inventory has a 7 point scale covering the frequency of servings desired from 7 (once a day) to 1 (rarely or never). Since

this inventory appeared to fill the needs of Montana State University's Food Service Department, it was used in this study.

Evidence to be obtained

Both Inventories A and B contained 120 food items. They consisted of 63 entrees, 46 desserts, 6 salads, and 5 fruits. Inventory A answered the question: How well do the students like the foods? Inventory B: How often would the students like to eat the foods?

In order to follow Peryam's (27) suggestion on containing the number of items on an inventory, Inventories A and B were each divided into three parts, a, b, and c. Each student was given part a, b, or c and was thereby expected to rate only 40 items from the 120 food items in the study. In effect, each student was given approximately one third of each of the entrees, desserts, salads, and fruits of the study. Limiting the items to 40 was designed to reduce student error due to carelessness in filling out the inventories.

In order to insure an equal distribution of inventories among students, the following procedures were followed:

1. Each dormitory administrator selected two floors from the dormitory where approximately fifty students each resided.
2. Each floor was assigned at random to either Inventory A or B.

3. The purpose of the Inventory was explained at regular floor meetings. The appropriate Inventory was distributed, completed, and returned at the same meeting.

TREATMENT OF DATA

After the students scored the Inventories, the individual scores were compiled onto a single work sheet. The number of students scoring each food for each value on the scales used on both Inventories A and B was found. Weighted averages for all food scores were calculated as shown in Tables I through VI in Appendix D. Thus, the foods preferred or not preferred by the average of the population sampled means that, on the average, all the students sampled preferred or did not prefer those particular foods.

Sex comparisons for food preferences from the three dining halls would not produce a representative sample. Each dining hall may prepare and serve their foods differently. This could alter the foods and, thus, the preferences of the students. It was determined, therefore, to compare the preferences of the sexes in the one dining hall which served both male and female students.

The study of extremes was believed to be of primary importance to the application of the study. If the extremes are known, adjustments can be made. If the most preferred foods and the least preferred foods are studied, the knowl-

edge gained can be applied to improve all menus. For the purpose of this study, ten per cent of the foods (entrees, desserts, salads, fruits) inventoried which were rated highest, or most preferred, and 10 per cent of the foods which were rated lowest, or least preferred, by the students were examined. This division gave 12 foods which rated highest and 12 foods which rated lowest.

The Director of On Campus Living at Montana State University requested that student rated entrees and desserts be further examined. To do this, the 12 entrees and 12 desserts rated highest and lowest by the sample population were arbitrarily selected. Since only six salads and five fruits were included in the inventories, no further examination of those groups was needed.

CHAPTER IV

RESULTS AND DISCUSSION

The purpose of this study was to determine the food preferences of seven hundred Montana State University residence hall students in 1968. The study was done because a knowledge of student food preferences might result in the improvement of recipes, less food waste, and better student health and work efficiency.

One hundred and twenty foods served by the Montana State University Food Service were studied. These foods were ranked in order of preference and frequency of serving. These rankings, along with their weighted averages, are shown in Tables I through VI in Appendix D. For the purpose of comparison and discussion, the foods which ranked in the highest 10 per cent and lowest 10 per cent for each group studied (sample population, coed dining hall, and the dining halls serving only men or only women) are given in individual tables in this chapter. Entrees and desserts for each group studied were further analyzed. The twelve highest rated and the twelve lowest rated entrees and desserts were determined and tabulated.

ATTITUDE TOWARD AND DESIRED FREQUENCY
OF SERVING FOR FOODS RATED IN THE
HIGHEST AND LOWEST TEN PERCENT

The one hundred and twenty foods studied were ranked for the sample population, coed dining hall, and the dining halls serving only men or only women. A discussion of these rankings follows.

Sample Population

Most liked foods for the sample population tended to be those foods which were altered little beyond their natural state. Some of these were New York steak, fruits, and tossed salad. They are indicated in Table 1. Table 1 also shows that over half of these foods were desired often by the students.

The foods disliked were those combined with other foods such as liver and bacon, salmon loaf with fresh pea sauce, and New England boiled dinner with brisket. These foods were not only disliked but, in addition, students usually desired to have them served least often or not at all. As shown in Table 2, this demonstrated a correlation between disliked foods and foods students desired to have served least often or not at all.

Fruits were, on the average, more preferred and desired more frequently than any of the other food classes. Fruit

desserts, with the exception of apple pie, were not as highly accepted as whole fruits. Apple pie and ice cream were very popular among the students. Chinese chews and cottage pudding with cherry sauce were not well-liked desserts.

Tossed salad was the most preferred salad. Ham salad and macaroni salad were least preferred by the sample population.

TABLE 1

Foods Most Preferred and Desired for Most Frequent
Serving by the Sample Population
(All Dining Halls)

Food	Rank*	
	Preference	Desired Frequency
New York Steak	1	4
Oranges	2	6
Ice Cream	3	2
Apple Pie	4	3
Bananas	5	9
Turkey and Dressing	6	
Tossed Salad	7	1
German Chocolate Cake	8	
Strawberry Shortcake	9	
Raspberry Sundae	10	
Apples	11	7
Bacon, Lettuce, Tomato Sandwich	12	
Jello Salad		5
Canned Fruit		8
Fried Breakfast Ham		10
Fruit Plate		11
Fried Bacon		12

*Foods are ranked with 1 being most preferred.

TABLE 2

Foods Least Preferred and Desired for Least Frequent
Serving by the Sample Population
(All Dining Halls)

Food	Rank*	
	Preference	Desired Frequency
Liver and Bacon	1	1
Salmon Loaf w/Fresh Pea Sauce	2	5
New England Boiled Dinner w/Brisket	3	2
Ham Salad	4	
Corned Beef on Rye	5	4
Liver with Onions	6	3
Hamburger Pie	7	
Macaroni and Cheese	8	9
Macaroni Salad	9	
Cottage Pudding w/Cherry Sauce	10	10
Baked Beans	11	11
Chow Mein on Noodles	12	6
Turkey Noodle Casserole		7
Chicken Salad Sandwich		8
Chinese Chews		12

*Foods are ranked with 1 being least preferred.

Coed Dining Hall

A total of 1,496 students ate at Hedges dining Hall during the winter quarter of 1968. These students roomed at North Hedges, a women's dormitory, and South Hedges, and Roskie, men's dormitories. The food preferences of these men and women were obtained and tabulated.

The women scored tossed salad higher than the men in both preference (Table 3) and frequency of serving (Table 4). This was also true of the whole fruits (oranges and apples).

Ice cream was the only food well liked and desired to have served often by both men and women.

Both men and women disliked liver and bacon, salmon loaf with fresh pea sauce, and corned beef on rye (Table 5). They also desired to have these foods served least often, if at all (Table 6).

TABLE 3

Foods Most Preferred in the
Coed Dining Hall (Hedges)

Food	Rank*		
	Average	Men	Women
Apple Pie	1	1	4
Turkey and Dressing	2	3	9
Ice Cream	3	6	5
New York Steak	4	4	6
Oranges	5	7	6
Chocolate Pudding	6	2	3
Lemon Chiffon Pie	7		8
Bananas	8	10	8
Bacon, Lettuce, and Tomato Sandwich	9	9	11
Apples	10		2
Lemon Meringue Pie	11	8	
Tossed Salad	12		1
Butterscotch Pudding		5	
Strawberry Shortcake		11	
Coconut Cream Pie		12	
Banana Cream Pie			7
Raspberry Sundae			10
Chocolate Chiffon Pie			12

*Foods are ranked with 1 being most preferred.

TABLE 4

Foods Desired for Most Frequent Serving
In the Coed Dining Hall (Hedges)

Food	Rank*		
	Average	Men	Women
Tossed Salad	1	6	1
Ice Cream	2	4	5
Apple Pie	3	1	
New York Steak	4	2	
Jello Salad	5		3
Oranges	6		4
Lemon Chiffon Pie	7	10	9
Hamburgers	8	9	
Apples	9		2
Banana Cream Pie	10	5	
Fried Bacon	11	11	10
Fried Breakfast Ham	12	7	
Strawberry Shortcake		3	
Apple Crisp		8	
Grilled Ham Steak		12	
Fruit Plate			6
Brownies			7
Cookies			8
Canned Fruit			11
Tapioca Pudding			12

*Foods are ranked with 1 being desired for most frequent serving.

TABLE 5

Foods Least Preferred in the
Coed Dining Hall (Hedges)

Food	Rank*		
	Average	Men	Women
Salmon Loaf w/Fresh Pea Sauce	1	2	3
Liver with Onions	2		1
Liver and Bacon	3	3	4
Hamburger Pie	4	1	
Corned Beef on Rye	5	5	6
Cottage Cheese Salad	6	12	
New England Boiled Dinner w/Brisket	7	6	
Macaroni and Cheese	8	10	
Macaroni Salad	9	4	
Tuna Noodle Casserole	10		
Chow Mein on Noodles	11	8	
Baked Beans	12		
Cottage Pudding w/Cherry Sauce		7	8
Ham Salad		9	
Graham Cracker Torte		11	
Salmon Steak			2
Egg Salad			5
Jelly Roll			7
Spanish Steak			9
Meat Loaf			10
Lasagna			11
Hamburger Steak w/Mushroom Gravy			12

*Foods are ranked with 1 being least preferred.

TABLE 6

Foods Desired for Least Frequent Serving
In the Coed Dining Hall (Hedges)

Food	Rank*		
	Average	Men	Women
Liver with Onions	1	9	1
Liver and Bacon	2	1	3
New England Boiled Dinner w/Brisket	3	6	2
Salmon Loaf w/Fresh Pea Sauce	4	2	8
Corned Beef on Rye	5	10	4
Chow Mein on Noodles	6	8	5
Chicken Salad Sandwich	7	4	
Turkey Noodle Casserole	8	7	9
Macaroni and Cheese	9	5	
Baked Beans	10		6
Chinese Chews	11	3	
Spanish Steak	12		
Chicken a La King on Rice		10	
Tuna Noodle Casserole		11	
Barbeque Pork Chops			7
Cottage Pudding w/Cherry Sauce			10
Ham Salad			11
Chicken Noodle Casserole			12

*Foods are ranked with 1 being desired for least frequent serving.

Men's and Women's Dining Halls

The comparison of the preferences of the residents of the dining halls which served only males or females revealed results much like the results obtained from the men and women of the Hedges coed dining hall.

The women eating at Hannon, a women's dining hall, had much the same food preferences as did the women of the coed dining hall. The students eating at Lewis and Clark, a men's dining hall, had much the same food preferences as did the men of the coed dining hall.

When the most acceptable foods were compared, only tossed salad, ice cream, apple pie, and New York steak were found to be well liked (Table 7) and desired often (Table 8) by students eating in the three dining halls and by the sample population.

The women dining in Hannon Hall preferred and desired to have served frequently more fruits and salads than did students in the men's dining hall or in the coed dining hall. These foods were also popular among the women of the coed dining hall (Table 3 and 4).

The foods least liked and least desired by students in all three dining halls consisted of four entrees, liver and bacon, New England boiled dinner with brisket, corned beef on rye, and salmon loaf with fresh pea sauce. This also held true for the sample population (Tables 9 and 10).

TABLE 7

Foods Most Preferred by Students in the Dining Halls
Serving Only Men or Only Women

Food	Rank*	
	Lewis & Clark (Men)	Hannon (Women)
New York Steak	1	2
Ice Cream	2	3
Oranges	3	1
Apple Pie	4	11
Banana Cream Pie	5	
Raspberry Sundae	6	
Turkey and Dressing	7	
Tossed Salad	8	4
German Chocolate Cake	9	6
Roast Beef	10	
Fried Breakfast Ham	11	
Lemon Chiffon Pie	12	
Brownies		5
Bananas		7
Jello Salad		8
Chocolate Cake		9
Canned Fruit		10
Strawberry Shortcake		12

*Foods are ranked with 1 being most preferred.

TABLE 8

Foods Desired to be Served Most Often by
Students in the Dining Halls Serving
Only Men or Only Women

Food	Rank*	
	Lewis & Clark (Men)	Hannon (Women)
Ice Cream	1	5
Apple Pie	2	9
Roast Beef	3	
Chocolate Cake	4	
Tossed Salad	5	1
Jello Salad	6	2
Lemon Meringue Pie	7	
Country Fried Steak	8	
Strawberry Shortcake	9	
New York Steak	10	6
Raspberry Sundae	11	
German Chocolate Cake	12	
Bananas		3
Oranges		4
Canned Fruit		7
Fruit Plate		8
Apples		9
Fried Breakfast Ham		10
Brownies		11

*Foods are ranked with 1 being desired for most frequent serving.

TABLE 9

Foods Least Preferred by Students in the Dining Halls
Serving Only Men or Only Women

Food	Rank*	
	Lewis & Clark (Men)	Hannon (Women)
New England Boiled Dinner w/Brisket	1	6
Baked Beans	2	
Liver and Bacon	3	3
Macaroni Salad	4	
Chicken Salad Sandwich	5	
Corned Beef on Rye	6	10
Liver with Onions	7	
Chinese Chews	8	
Ham Salad	9	
Fruit Cocktail Pudding	10	
Turkey Noodle Casserole	11	
Salmon Loaf w/Fresh Pea Sauce	12	2
Barbeque Roast Pork		1
Fried Sausage Patty		4
Macaroni and Cheese		5
Barbeque Pork Chops		7
Spanish Steak		8
Barbeque Sliced Beef on Bun		9
Cubed Steak		11
Chow Mein on Noodles		12

*Foods are ranked with 1 being least preferred.

TABLE 10

Foods Desired to be Served Least Often by
Students in the Dining Halls Serving
Only Men or Only Women

Food	Rank*	
	Lewis & Clark (Men)	Hannon (Women)
New England Boiled Dinner w/Brisket	1	4
Chinese Chews	2	
Salmon Loaf w/Fresh Pea Sauce	3	12
Liver with Onions	4	9
Liver and Bacon	5	1
Fillet of Sole	6	
Turkey Noodle Casserole	7	
Corned Beef on Rye	8	3
Graham Cracker Torte	9	
Ham Salad	10	
Macaroni Salad	11	
Macaroni and Cheese	12	
Cottage Pudding w/Cherry Sauce		2
Fried Sausage Patty		5
Spanish Steak		6
Chow Mein on Noodles		7
Barbeque Sliced Beef on Bun		8
Baked Beans		10
Chili Mac		11

*Foods are ranked with 1 being desired for least frequent serving.

As previously reported, the Director of On Campus Living at Montana State University requested that the 63 entrees and 46 desserts be studied in greater depth to give the menu planners at Montana State University a more complete understanding of student desires. The additional analysis of the 12 entrees and 12 desserts rated highest and lowest by the sample population is reported and compared with individual dormitory ratings.

PREFERENCE AND FREQUENCY OF SERVINGS FOR ENTREES

Sample Population

Entrees were generally rated low (Appendix D). Because of this, those which rated among the highest entrees were not necessarily foods well liked by the students. The more highly preferred entrees were generally rated as being desired for frequent serving as shown in Table 11.

Most of the lowest rated entrees were casseroles or other entrees in which the meat was combined with several other food ingredients. Salmon loaf with fresh pea sauce, New England boiled dinner with brisket, chow mein on noodles, chicken salad sandwich, and Spanish steak were not preferred or desired to have served often by the students. Liver entrees were especially disliked as indicated by Table 12.

TABLE 11

Twelve Entrees Most Preferred and Desired
For Most Frequent Serving by
The Sample Population

Food	Rank*	
	Preference	Desired Frequency
New York Steak	1	1
Turkey and Dressing	2	
Bacon, Lettuce, and Tomato Sandwich	3	9
Fried Breakfast Ham	4	2
Roast Beef	5	5
Hot Beef Sandwich	6	
Italian Spaghetti	7	
Country Fried Steak	8	7
Hamburgers	9	6
Baked Ham	10	8
Fried Chicken	11	
Grilled Cheese Sandwich	12	12
Fruit Plate		3
Fried Bacon		4
Grilled Ham Steak		10
Fried Link Sausage		11

*Entrees are ranked with 1 being most preferred and desired for most frequent serving.

TABLE 12

Twelve Entrees Least Preferred and
Not Desired for Frequent Serving
By the Sample Population

Food	Rank*	
	Preference	Desired Frequency
Liver and Bacon	1	1
Salmon Loaf w/Fresh Pea Sauce	2	5
New England Boiled Dinner w/Brisket	3	2
Corned Beef on Rye	4	4
Liver with Onions	5	3
Hamburger Pie	6	
Macaroni and Cheese	7	9
Baked Beans	8	10
Chow Mein on Noodles	9	6
Chicken Salad Sandwich	10	8
Cold Cuts and Cheese	11	
Spanish Steak	12	11
Turkey Noodle Casserole		7
Meat Loaf		12

*Entrees are ranked with 1 being least preferred and desired for least frequent serving.

Coed Dining Hall

Entrees scored low over-all (Appendix D). New York steak was the entree both men and women liked well (Table 13) and desired to have served often (Table 14). Men and women preferred turkey and dressing over all other entrees but did not want it served as often as other entrees.

Men preferred more meat entrees than did the women. Women desired to have fruit plate served more often than any other entree. Both men and women rated ham entrees high. New York steak, fried breakfast ham, bacon, lettuce, and tomato sandwich, and country fried steak were well liked and desired to have served often by both men and women. As with the sample population, the men and women of the coed dining hall least desired liver entrees and entrees in which the meat was combined with other ingredients (Tables 15 and 16).

TABLE 13

Twelve Entrees Most Preferred by Men and Women
In the Coed Dining Hall (Hedges)

Food	Rank*		
	Average	Men	Women
Turkey and Dressing	1	1	1
New York Steak	2	2	4
Bacon, Lettuce, and Tomato Sandwich	3	3	2
Hot Beef Sandwich	4	6	9
Grilled Cheese Sandwich	5	5	
Fried Breakfast Ham	6	10	3
Roast Beef	7	4	
Country Fried Steak	8	9	7
Hamburgers	9	7	
Italian Spaghetti	10	12	11
Grilled Ham Steak	11	8	
Chili	12		10
Wieners and Buns		11	
Fruit Plate			5
Grilled Ham and Chili			6
Fried Chicken			7
Baked Ham			8

*Entrees are ranked with 1 being most preferred.

TABLE 14

Twelve Entrees Desired for Most Frequent
Serving by Men and Women in the
Coed Dining Hall (Hedges)

Food	Rank*		
	Average	Men	Women
New York Steak	1	1	6
Hamburgers	2	3	4
Fried Bacon	3	4	2
Fried Breakfast Ham	4	2	7
Fruit Plate	5		1
Bacon, Lettuce, and Tomato Sandwich	6	12	3
Grilled Ham Steak	7	5	
Roast Beef	8	6	
Sloppy Joes	9		6
Grilled Ham and Chili	10		5
Country Fried Steak	11	10	9
Fried Link Sausage	12	8	
Baked Ham		7	9
Grilled Cheese Sandwich		9	
Hot Beef Sandwich		11	
Hot Pork Sandwich			8
Tuna Noodle Casserole			8

*Entrees are ranked with 1 being desired for most frequent serving.

TABLE 15

Twelve Entrees Least Preferred by Men and Women
In the Coed Dining Hall (Hedges)

Food	Rank*		
	Average	Men	Women
Salmon Loaf w/Fresh Pea Sauce	1	2	3
Liver with Onions	2	8	1
Liver and Bacon	3	10	4
Hamburger Pie	4	1	
Corned Beef on Rye	5	4	5
New England Boiled Dinner w/Brisket	6	5	
Macaroni and Cheese	7	7	11
Tuna Noodle Casserole	8	9	10
Chow Mein on Noodles	9	6	
Baked Beans	10		
Salmon Steak	11		2
Turkey a La King	12	12	
Chili Mac		3	
Chicken Salad Sandwich		11	
Spanish Steak			6

*Entrees are ranked with 1 being least preferred.

TABLE 16

Twelve Entrees Desired for Least Frequent
Serving by Men and Women in the
Coed Dining Hall (Hedges)

Food	Rank*		
	Average	Men	Women
Liver with Onions	1	8	1
Liver and Bacon	2	1	3
New England Boiled Dinner w/Brisket	3	5	2
Salmon Loaf w/Fresh Pea Sauce	4	2	8
Corned Beef on Rye	5	9	4
Chow Mein on Noodles	6	7	5
Chicken Salad Sandwich	7	3	11
Turkey Noodle Casserole	8	6	9
Macaroni and Cheese	9	4	
Baked Beans	10		6
Spanish Steak	11	11	12
Chicken a La King on Rice	12	9	
Tune Noodle Casserole		10	
Barbeque Pork Chops			7
Chicken Noodle Casserole			10

*Entrees are ranked with 1 being desired for least frequent serving.

Men's and Women's Dining Halls

As was found in the study of the men and women of the coed dining hall, New York steak was the only entree highly preferred (Table 17) and most desired (Table 18) by students eating in dining halls serving only men or only women. In Hannon, a women's dining hall, fruit plate was ranked higher than in either of the other two dining halls. Liver and bacon, New England boiled dinner with brisket, corned beef on rye, and salmon loaf with fresh pea sauce were entrees rated low in preference (Table 19) and desirability of serving (Table 20). This was consistent with the ratings noted in the coed hall as well as for the sample population.

TABLE 17

Twelve Entrees Most Preferred by Students
In the Dining Halls Serving
Only Men or Only Women

Food	Rank*	
	Lewis & Clark (Men)	Hannon (Women)
New York Steak	1	1
Turkey and Dressing	2	3
Roast Beef	3	11
Fried Breakfast Ham	4	
Grilled Ham and Chili	5	
Grilled Ham Steak	6	
Hot Beef Sandwich	7	10
Italian Spaghetti	8	7
Grilled Ham Sandwich	9	
Baked Ham	10	9
Bacon, Lettuce, and Tomato Sandwich	11	2
Country Fried Steak	12	
Fried Chicken		4
Chili		5
Fruit Plate		6
Hamburgers		8
Fried Link Sausage		12

*Entrees are ranked with 1 being most preferred.

TABLE 18

Twelve Entrees Desired for Most Frequent
Serving by Students in the Dining Halls
Serving Only Men or Only Women

Food	Rank*	
	Lewis & Clark (Men)	Hannon (Women)
Roast Beef	1	
Country Fried Steak	2	11
New York Steak	3	1
Baked Ham	4	
Pork Chops	5	
Fried Bacon	6	5
Grilled Ham Steak	7	
Turkey and Dressing	8	
Hamburgers	9	4
Fruit Plate	10	2
Cubed Steak	11	
Chili	12	
Fried Breakfast Ham		3
Pork Cutlets		6
Bacon, Lettuce, and Tomato Sandwich		7
Fried Chicken		8
Hot Beef Sandwich		9
Grilled Cheese Sandwich		10
Cold Cuts and Cheese		12

*Entrees are ranked with 1 being for most frequent serving.

TABLE 19

Twelve Entrees Least Preferred by Students
In the Dining Halls Serving
Only Men or Only Women

Food	Rank*	
	Lewis & Clark (Men)	Hannon (Women)
New England Boiled Dinner w/Brisket	1	6
Baked Beans	2	
Liver and Bacon	3	3
Chicken Salad Sandwich	4	
Corned Beef on Rye	5	10
Liver with Onions	6	
Turkey Noodle Casserole	7	
Salmon Loaf w/Fresh Pea Sauce	8	2
Chow Mein on Noodles	9	12
Chili Mac.	10	
Lasagna	11	
Cold Cuts and Cheese	12	
Barbeque Roast Pork		1
Fried Sausage Patty		4
Macaroni and Cheese		5
Barbeque Pork Chops		7
Spanish Steak		8
Barbeque Sliced Beef on Bun		9
Cubed Steak		11

*Entrees are ranked with 1 being least preferred.

TABLE 20

Twelve Entrees Desired for Least Frequent
Serving by Students in the Dining Halls
Serving Only Men or Only Women

Food	Rank*	
	Lewis & Clark (Men)	Hannon (Women)
New England Boiled Dinner w/Brisket	1	3
Salmon Loaf w/Fresh Pea Sauce	2	11
Liver with Onions	3	8
Liver and Bacon	4	1
Fillet of Sole	5	
Turkey Noodle Casserole	6	
Corned Beef on Rye	7	2
Macaroni and Cheese	8	
Chicken Salad Sandwich	9	
Tuna Noodle Casserole	10	
Meat Loaf	11	
Barbeque Spare Ribs		
Fried Sausage Patty		4
Spanish Steak		5
Chow Mein on Noodles		6
Barbeque Sliced Beef on Bun		7
Baked Beans		9
Chili Mac		10
Turkey Pie		12

*Entrees are ranked with 1 being desired for least frequent serving.

PREFERENCE AND FREQUENCY OF SERVINGS FOR DESSERTS

Sample Population

Desserts were ranked higher more often than any other food (Appendix D). Those desserts which were among the lowest rated desserts, therefore, were not necessarily foods disliked by the students.

Pies and cakes were highly acceptable (Table 21). The only dessert disliked and desired to have served infrequently, if at all, by the sample population was cottage pudding with cherry sauce (Table 22).

TABLE 21

Twelve Desserts Most Preferred and Desired
For Most Frequent Serving by
The Sample Population

Food	Rank*	
	Preference	Desired Frequency
Ice Cream	1	1
Apple Pie	2	2
German Chocolate Cake	3	6
Strawberry Shortcake	4	3
Raspberry Sundae	5	4
Chocolate Cake	6	7
Banana Cream Pie	7	9
Coconut Cream Pie	8	
Lemon Meringue Pie	9	10
Lemon Chiffon Pie	10	5
Cherry Crisp	11	11
Devil's Food Cake	12	
Apple Crisp		8
Brownies		12

*Desserts are ranked with 1 being most preferred and desired for most frequent serving.

TABLE 22

Twelve Desserts Least Preferred and
Not Desired for Frequent Serving
By the Sample Population

Food	Rank*	
	Preference	Desired Frequency
Cottage Pudding w/Cherry Sauce	1	1
Chinese Chews	2	2
Graham Cracker Torte	3	3
Fruit Cocktail Pudding	4	4
Peach-Topped Cake	5	10
Fruit Cobbler	6	11
Berry Crisp	7	9
Fruit Bars	8	
Jelly Roll	9	6
Angel Food Cake	10	
Cupcake	11	
Cookies	12	
Blueberry Cobbler		7
Vanilla Pudding		5
Lemon Pudding		8
Cream Puff		10

*Desserts are ranked with 1 being desired for least frequent serving.

Coed Dining Hall

Men liked more desserts than did the women, but the women scored more desserts higher than did the men (Appendix D). The men and women liked different desserts (Tables 23 and 24). Women preferred more pies than the men, but men wanted a greater number of pies served more often than did the women. While the men preferred more cakes than did the women, the women desired to have more cakes served often.

Ice cream and lemon chiffon pie were the only desserts well liked by the men and women and also desired to have served often. This also held true for the sample population.

Apple pie ranked very high for both men and women in preference, but the women did not desire it to be served as often as did the men. The sample population not only preferred apple pie, but wanted it served often.

The desserts which both men and women disliked (Table 25) and agreed should be served infrequently, if at all, (Table 26) were Chinese chews, cottage pudding with cherry sauce, lemon pudding, and fruit cocktail pudding.

The men disliked cookies, graham cracker torte, and blueberry cobbler and also desired to have them served infrequently, if at all. This did not hold true for the women.

The women disliked strawberry chiffon pie and apple

turnover and also desired to have them served infrequently, if at all. This was not true for the men.

TABLE 23

Twelve Desserts Most Preferred by Men and Women
In the Coed Dining Hall (Hedges)

Food	Rank*		
	Average	Men	Women
Apple Pie	1	1	2
Ice Cream	2	4	3
Chocolate Pudding	3	2	
Lemon Chiffon Pie	4	11	1
Lemon Meringue Pie	5	5	10
Strawberry Shortcake	6	6	7
Raspberry Sundae	7		5
Tapioca Pudding	8	10	9
German Chocolate Cake	9	9	
Butterscotch Pudding	10	3	
Devil's Food Cake	11	9	
Cherry Crisp	12		
Coconut Cream Pie		7	
Chocolate Cake		8	
Banana Cream Pie			4
Chocolate Chiffon Pie			6
Graham Cracker Torte			8
Apple Crisp			11
Brownies			12

*Desserts are ranked with 1 being most preferred.

TABLE 24

Twelve Desserts Desired for Most Frequent
Serving by Men and Women in the
Coed Dining Hall (Hedges)

Food	Rank*		
	Average	Men	Women
Ice Cream	1	3	1
Apple Pie	2	1	
Lemon Chiffon Pie	3	6	4
Banana Cream Pie	4	4	
Strawberry Shortcake	5	2	
Chocolate Pudding	6	9	
Brownies	7		2
Tapioca Pudding	8		5
German Chocolate Cake	9	12	
Frozen Cherry Pie	10	11	
Donut a La Mode	11		
White Cake	12		10
Apple Crisp		5	
Coconut Cream Pie		7	
Lemon Meringue Pie		8	
Strawberry Chiffon Pie		10	
Cookies			3
Raspberry Sundae			6
Devil's Food Cake			7
Iced Cake			8
Cupcake			9
Angel Food Cake			11
Fruit Cobbler			12

*Desserts are ranked with 1 being desired for most frequent serving.

TABLE 25

Twelve Desserts Least Preferred by Men and Women
In the Coed Dining Hall (Hedges)

Food	Rank#		
	Average	Men	Women
Cottage Pudding w/Cherry Sauce	1	1	2
Chinese Chews	2	3	3
Angel Food Cake	3	6	5
Graham Cracker Torte	4	2	
Chocolate Chip Blonde Brownie	5		
Lemon Pudding	6	9	11
Fruit Cocktail Pudding	7	10	4
Cupcake	8	5	
Peach-Topped Cake	9	8	9
Berry Crisp	10	4	
Jelly Roll	11		1
Cookies	12	7	
Blueberry Cobbler		10	
Cream Puff		11	12
Strawberry Chiffon Pie			6
Pineapple Upside Down Cake			7
Apple Turnover			8
Vanilla Pudding			10

*Desserts are ranked with 1 being least preferred.

TABLE 26

Twelve Desserts Desired for Most Frequent
Serving by Men and Women in the
Coed Dining Hall (Hedges)

Food	Rank*		
	Average	Men	Women
Ice Cream	1	3	1
Apple Pie	2	1	
Lemon Chiffon Pie	3	6	4
Banana Cream Pie	4	4	
Strawberry Shortcake	5	2	
Chocolate Pudding	6	9	
Brownies	7		2
Tapioca Pudding	8		5
German Chocolate Cake	9	12	
Frozen Cherry Pie	10	11	
Donut a La Mode	11		
White Cake	12		10
Apple Crisp		5	
Coconut Cream Pie		7	
Lemon Meringue Pie		8	
Strawberry Chiffon Pie		10	
Cookies			3
Raspberry Sundae			6
Devil's Food Cake			7
Iced Cake			8
Cupcake			9
Angel Food Cake			11
Fruit Cobbler			12

*Desserts are ranked with 1 being desired for most frequent serving.

Men's and Women's Dining Halls

Ice cream, apple pie, strawberry shortcake, and German chocolate cake were the desserts ranking high in preference (Table 27) and desirability of serving (Table 28) by both men in Lewis and Clark dining hall and women in Hannon dining hall.

The men of the Lewis and Clark dining hall preferred considerably more pies than did the women of Hannon dining hall.

The women of Hannon Hall preferred and desired to have served frequently more cakes than men in Lewis and Clark dining hall.

Those desserts which rated low for both preference (Table 29) and frequency of serving (Table 30) by the men's and women's dining halls were cottage pudding with cherry sauce and Chinese chews.

The men in Lewis and Clark dining hall had a lower preference for more of the puddings than did the women of Hannon Hall, but the women desired more of the puddings served less frequently than did the men.

TABLE 27

Twelve Desserts Most Preferred by Students
In the Dining Halls Serving
Only Men or Only Women

Food	Rank*	
	Lewis & Clark (Men)	Hannon (Women)
Ice Cream	1	1
Apple Pie	2	5
Banana Cream Pie	3	
Raspberry Sundae	4	10
German Chocolate Cake	5	3
Lemon Chiffon Pie	6	
Strawberry Shortcake	7	6
Strawberry Chiffon Pie	8	
Lemon Meringue Pie	9	
Frozen Cherry Pie	10	
Coconut Cream Pie	11	7
Chocolate Cake	12	4
Brownies		2
Chocolate Chip Blonde Brownies		8
Spice Cake		9
Apple Crisp		11
Cherry Turnover		12

*Desserts are ranked with 1 being most preferred.

TABLE 28

Twelve Desserts Desired for Most Frequent Serving
By Students in the Dining Halls Serving
Only Men or Only Women

Food	Rank*	
	Lewis & Clark (Men)	Hannon (Women)
Ice Cream	1	1
Apple Pie	2	2
Chocolate Cake	3	5
Lemon Meringue Pie	4	
Strawberry Shortcake	5	8
German Chocolate Cake	6	7
Raspberry Sundae	7	8
Coconut Cream Pie	8	
Banana Cream Pie	9	
Cherry Crisp	10	4
Apple Crisp	11	
Cherry Turnover	12	
Brownies		3
White Cake		6
Chocolate Chip Blond Brownies		7
Lemon Chiffon Pie		9
Donut a La Mode		10

*Desserts are ranked with 1 being desired for most frequent serving.

TABLE 29

Twelve Desserts Least Preferred by Students in
Dining Halls Serving Only Men or Only Women

Food	Rank*	
	Lewis & Clark (Men)	Hannon (Women)
Chinese Chews	1	
Fruit Cocktail Pudding	2	4
Fruit Bars	3	5
Cottage Pudding w/Cherry Sauce	4	1
Graham Cracker Torte	5	
Peach-Topped Cake	6	2
Vanilla Pudding	7	
Cupcakes	8	
Jelly Roll	9	7
Cookies	10	
Fruit Cobbler	11	9
Tapioca Pudding	12	
Berry Crisp		3
Pumpkin Pie		6
Lemon Chiffon Pie		8
Angel Food Cake		10
Blueberry Cobbler		11
Lemon Pudding		12

*Desserts are ranked with 1 being least preferred.

TABLE 30

Twelve Desserts Desired for Least Frequent
Serving by Students in the Dining Halls
Serving Only Men or Only Women

Food	Rank*	
	Lewis & Clark (Men)	Hannon (Women)
Chinese Chews	1	
Graham Cracker Torte	2	
Berry Crisp	3	
Cottage Pudding w/Cherry Sauce	4	1
Fruit Cobbler	5	9
Pineapple Upside Down Cake	6	
Fruit Cocktail Pudding	7	8
Tapioca Pudding	8	
Donut a La Mode	9	
Brownies	10	
Fruit Bars	11	
Blueberry Cobbler	12	
Cream Puff		2
Jelly Roll		3
Vanilla Pudding		4
Peach-Topped Cake		5
Butterscotch Pudding		7
Cupcakes		10
Lemon Pudding		11
Chocolate Chiffon Pie		12

*Desserts are ranked with 1 being desired for least frequent serving.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

SUMMARY

Montana State University's Food Service Department has had many changes in the past generation. The changes have been intended for the benefit of the students by providing more preferred foods. This study was designed to help further the changes by determining the most and least preferred foods the Montana State University Food Service Department was serving in 1968 to students eating in Montana State University dining halls.

Previous studies have been made to discover the uses of foods and the formation of food attitudes. With these results, better food attitudes have been developed through nutritional education. It has not always been possible to educate those people who need this training. Thus, food preference studies have been conducted because it is felt that once food preferences are known, better nutrition will follow.

A random sample of 700 students boarding at Montana State University dining halls was selected. These students were asked to score on two inventories 120 foods consisting of 63 entrees, 46 desserts, 6 salads, and 5 fruits. On

Inventory A, the foods were rated on a 9 point hedonic scale ranging from 9 (like extremely) to 1 (dislike extremely). On Inventory B, the foods were scored as to frequency of serving from 7 (once a day) to 1 (rarely or never). Weighted averages of the food scores were calculated to insure equal representation based on the sample population, the three dining halls, and the sexes in the coed dining hall.

The food preferences of the students eating at Montana State University dining halls indicated that many of those foods which were highly preferred were also desired often. Most of the foods which were least preferred were also desired least often.

The results indicated that entrees were scored low over-all, thus, those receiving the highest ratings were not necessarily well liked by the students. Desserts were rated high over-all, thus, those ranking lowest were not necessarily disliked by the students. Although the students had a high preference for desserts, they wanted the entrees, fruits, and salads which they scored high in preference, served more often.

The dining hall serving all women had food preferences similar to the food preferences of the women of the coed dining hall. The dining hall serving all men had food preferences similar to the food preferences of the men of the

coed dining hall. The fact that one dining hall was coed had no apparent effect on the food preferences of men or women students.

Men preferred more desserts than women, but the women scored desserts higher than the men. Men liked different desserts than the women. Women preferred more fruits and salads than did the men and scored salads higher than the men. Men liked more meat entrees and rated them higher than the women.

CONCLUSIONS

The following conclusions were drawn from the results of the study.

1. The hypothesis that "there would be a variation in food preferences between sexes in the coed dining hall" was accurate.

2. The hypothesis that "there would be a variation in food preferences among dining halls" was correct.

3. The differences which occurred among dining halls were related to the sex of the students dining in them. That is, the food preference differences among dining halls serving only men or only women corresponded to those differences found between the men and women served in the coed dining hall.

4. The foods most preferred were those altered little beyond their natural state.

5. Students were not as concerned about being served enough well-liked desserts as they were about getting enough well-liked entrees, salads, and fruits. This may have been due to the fact that a student not liking a dessert offered at a particular meal could always select a salad as a substitute.

6. Students do have and are willing to reveal distinct food preferences.

RECOMMENDATIONS

It is recommended that the nutritional aspect of the foods served by the Food Service Department of Montana State University be studied to determine if, once the preferred foods are served, the nutritional quality of the student's diet would improve.

It is also recommended that a study be conducted to determine specific reasons why certain foods are not preferred by the students, both men and women. From such a study the Food Service Department of Montana State University would perhaps learn whether or not a recipe could be improved to an adequate level of student desirability or whether it should be discarded.

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LITERATURE CITED

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APPENDIX

APPENDIX A

Weekly Menu Plan for the Dining Halls at
Montana State University in 1968

WEEKLY MENU PLAN FOR THE DINING HALLS AT
MONTANA STATE UNIVERSITY IN 1968

MONDAY

Breakfast

Choice of fruit or juices
Choice of hot or cold cereal
Scrambled eggs and ham slice
Toast, jams and jellies, unlimited
Unlimited choice of milk, chocolate milk, cocoa, hot tea,
coffee

Lunch

Choice of juice or soup with crackers
Choice of 2 entrees: Wieners and buns - potato chips
Chili-Mac
Choice of vegetable
Choice of one line salad
Unlimited breads
Unlimited margarine
Choice of fruit with cookie or ice cream, or a line of salad
may be substituted for dessert
Choice of milk, chocolate milk, hot tea, coffee, fruit punch,
carbonated beverages

Dinner

Entree: Pork Chops
Country fried steak
Potatoes: Oven-browned with gravy
Choice of vegetables
Choice of salads
Choice of desserts: Strawberry shortcake, ice cream, or a
line of salad may be substituted for dessert
Unlimited breads
Unlimited margarine
Unlimited choice of milk, chocolate milk, hot tea, coffee,
fruit punch, carbonated beverages

DINING HALLS--Continued

TUESDAYBreakfast

Choice of fruit or juices
 Choice of hot or cold cereal
 Pancakes and bacon
 Toast, jams and jellies, unlimited
 Unlimited choice of milk, chocolate milk, cocoa, hot tea,
 coffee

Lunch

Choice of juice or soup with crackers
 Choice of 2 entrees: Chow Mein on noodles
 Cold cuts and cheese
 Macaroni salad
 Choice of Vegetable
 Choice of one line salad
 Unlimited breads
 Unlimited margarine
 Choice of dessert: apple crips, ice cream, or a line of
 salad may be substituted for dessert
 Choice of milk, chocolate milk, hot tea, coffee, fruit
 punch, carbonated beverages

Dinner

Entree: Roast beef
 Grilled ham steak
 Potatoes: Whipped with gravy
 Choice of vegetables
 Choice of salads
 Choice of Dessert: Banana cream pie, ice cream, or a line
 of salad may be substituted for dessert
 Unlimited breads
 Unlimited margarine
 Unlimited choice of milk, chocolate milk, hot tea, coffee,
 fruit punch, carbonated beverages

DINING HALLS--Continued

WEDNESDAYBreakfast

Choice of fruit or juices
 Choice of hot or cold cereal
 Fried eggs and sweet roll
 Toast, jams, jellies, unlimited
 Unlimited choice of milk, chocolate milk, cocoa, hot tea,
 coffee

Lunch

Choice of juice or soup with crackers
 Entree: Sloppy Joes - potato chips
 Choice of vegetables
 Choice of one line salad
 Unlimited breads
 Unlimited margarine
 Choice of dessert: Fresh fruit, ice cream, or a line of
 salad may be substituted for dessert
 Choice of milk, chocolate milk, hot tea, coffee, fruit punch,
 carbonated beverages

Dinner

Entree: Fried Chicken
 Spanish Steak with tomato sauce
 Potatoes: Whipped with gravy
 Choice of vegetables
 Choice of salads
 Choice of desserts: Chocolate cake, ice cream or a line
 of salad may be substituted for dessert
 Unlimited breads
 Unlimited margarine
 Unlimited choice of milk, chocolate milk, hot tea, coffee,
 fruit punch, carbonated beverages

DINING HALLS--Continued

THURSDAYBreakfast

Choice of fruit or juices
 Choice of hot or cold cereal
 Sausage links and hash browns
 Toast, jams and jellies, Unlimited
 Unlimited choice of milk, chocolate milk, cocoa, hot tea,
 coffee

Lunch

Choice of juice or soup with crackers
 Entree: Hamburgers and French fries
 Choice of vegetables
 Choice of line of salad
 Unlimited breads
 Unlimited margarine
 Choice of dessert: Brownie, ice cream, or a line of salad
 may be substituted for dessert
 Choice of milk, chocolate milk, hot tea, coffee, fruit punch,
 carbonated beverages

Dinner

Entree: Barbequed roast pork
 Cubed steak
 Potatoes: Lyonnaise - gravy
 Choice of Vegetables
 Choice of salads
 Choice of desserts: Fruit cobbler, ice cream, or a line of
 salad may be substituted for dessert
 Unlimited breads
 Unlimited margarine
 Unlimited choice of milk, chocolate milk, hot tea, coffee,
 fruit punch, carbonated beverages

DINING HALLS--Continued

SATURDAYBreakfast

Choice of fruit or juices
 Choice of hot or cold cereal
 Poached eggs and sweet rolls
 Toast, jams and jellies, unlimited
 Unlimited choice of milk, chocolate milk, cocoa, hot tea,
 coffee

Lunch

Choice of juice or soup with crackers
 Choice of 2 entrees: Cold cuts - potato salad
 Macaroni and cheese
 Choice of vegetable
 Choice of one line salad
 Unlimited breads
 Unlimited margarine
 Choice of dessert: Cookies, ice cream, or a line salad
 may be substituted for dessert
 Choice of milk, chocolate milk, hot tea, coffee, fruit punch,
 carbonated beverages

Dinner

Entree: Beef stew with biscuit
 Barbequed spareribs
 Potatoes: Quarter brown with gravy
 Choice of vegetables
 Choice of salads
 Choice of dessert: White cake, ice cream, or a line salad
 may be substituted for dessert
 Unlimited breads
 Unlimited margarine
 Unlimited choice of milk, chocolate milk, hot tea, coffee,
 fruit punch, carbonated beverages

DINING HALLS--Continued

SUNDAYBreakfast

Choice of fruit or juices
 Choice of hot or cold cereal
 Fried eggs and bacon
 Toast, jams and jellies, unlimited
 Unlimited choice of milk, chocolate milk, cocoa, hot tea,
 coffee

Lunch

Choice of juice or soup with crackers
 Entree: Ham salad and egg salad with potato chips
 Choice of vegetable
 Choice of salad
 Unlimited breads
 Unlimited margarine
 Choice of dessert: Donut a La Mode, ice cream, or a line
 salad may be substituted for dessert
 Choice of milk, chocolate milk, hot tea, coffee, fruit punch,
 carbonated beverages

Dinner

Entree: Baked Ham
 Potatoes: Sweet potato
 Choice of vegetable
 Choice of salads
 Choice of desserts: Angel food cake, ice cream, or a line
 salad may be substituted for dessert
 Unlimited breads
 Unlimited margarine
 Unlimited choice of milk, chocolate milk, hot tea, coffee,
 fruit punch, carbonated beverages

APPENDIX B

Food Attitude Inventory A

FOOD ATTITUDE INVENTORY (Aa)

Directions: Blacken the score (9-1) that describes your feeling about each of the following food items served to you in MSU dining halls. Please follow the KEY to the left. Remember 9 is the highest rating, 1 is the lowest rating of foods you have eaten, and 0 means you have not tried the food.

KEY	FOOD ITEMS	SCORE
	Wieners & Buns	1. 987654321 0
	Country Fried Steak	2. 987654321 0
9 Like	Roast Beef	3. 987654321 0
Extremely	Fried Chicken	4. 987654321 0
	Cubed Steak	5. 987654321 0
8 Like	Fish Sticks	6. 987654321 0
Very Much	Beef Stew w/Biscuits	7. 987654321 0
	Chicken Noodle Casserole	8. 987654321 0
7 Like	Italian Spaghetti	9. 987654321 0
Moderately	Turkey & Dressing	10. 987654321 0
	Halibut w/Lemon	11. 987654321 0
6 Like	Chicken Salad Sandwich	12. 987654321 0
Slightly	B-B-Q Pork Chops	13. 987654321 0
	Turkey Noodle Casserole	14. 987654321 0
5 Neither	Liver & Bacon	15. 987654321 0
Like nor	Meat Loaf	16. 987654321 0
Dislike	N.E. Boiled Dinner w/Brisket	17. 987654321 0
	Pizza	18. 987654321 0
4 Dislike	Bacon, Lettuce, Tomato Sandwich	19. 987654321 0
Slightly	New York Steak	20. 987654321 0
	Fried Breakfast Ham	21. 987654321 0
3 Dislike	Cottage Cheese Salad	22. 987654321 0
Moderately	Egg Salad	23. 987654321 0
	Butterscotch Pudding	24. 987654321 0
2 Dislike	Vanilla Pudding	25. 987654321 0
Very Much	Coconut Cream Pie	26. 987654321 0
	Strawberry Chiffon Pie	27. 987654321 0
1 Dislike	Lemon Meringue Pie	28. 987654321 0
Extremely	Strawberry Shortcake	29. 987654321 0
	Apple Turnover	30. 987654321 0
<u>0 Not Tried</u>	Cherry Crisp	31. 987654321 0
	Fruit Cobbler	32. 987654321 0
	Cottage Pudding w/Cherry Sauce	33. 987654321 0
	Raspberry Sundae	34. 987654321 0
	Choc. Chip Blonde Brownies	35. 987654321 0
	Oranges	36. 987654321 0
	Icecream	37. 987654321 0
	Chocolate Cake	38. 987654321 0
	German Chocolate Cake	39. 987654321 0
	Spice Cake	40. 987654321 0

FOOD ATTITUDE INVENTORY (Ab)

Directions: Blacken the score (9-1) that describes your feeling about each of the following food items served to you in MSU dining halls. Please follow the KEY to the left. Remember 9 is the highest rating, 1 is the lowest rating of foods you have eaten, and 0 means you have not tried the food.

KEY	FOOD ITEMS	SCORE
	Pork Chops	41. 987654321 0
	Cold Cuts & Cheese	42. 987654321 0
9 Like	Sloppy Joes	43. 987654321 0
Extremely	B-B-Q Roast Pork	44. 987654321 0
	Grilled Cheese Sandwich	45. 987654321 0
8 Like	Macaroni & Cheese	46. 987654321 0
Very Much	Baked Ham	47. 987654321 0
	Chili	48. 987654321 0
7 Like	Turkey a La King	49. 987654321 0
Moderately	Tuna Noodle Casserole	50. 987654321 0
	Lasagna	51. 987654321 0
6 Like	Hamburgers	52. 987654321 0
Slightly	Hot Pork Sandwich	53. 987654321 0
	Swiss Steak	54. 987654321 0
5 Neither	Fruit Plate	55. 987654321 0
Like nor	Baked Beans	56. 987654321 0
Dislike	Roast Pork	57. 987654321 0
	Turkey Pie	58. 987654321 0
4 Dislike	Salmon Steak	59. 987654321 0
Slightly	Fried Bacon	60. 987654321 0
	Fried Link Sausage	61. 987654321 0
3 Dislike	Ham Salad	62. 987654321 0
Moderately	Tossed Salad	63. 987654321 0
	Lemon Pudding	64. 987654321 0
2 Dislike	Fruit Cocktail Pudding	65. 987654321 0
Very Much	Chocolate Chiffon Pie	66. 987654321 0
	Banana Cream Pie	67. 987654321 0
1 Dislike	Frozen Cherry Pie	68. 987654321 0
Extremely	Fruit Cobbler	69. 987654321 0
	Jelly Roll	70. 987654321 0
	Cream Puff	71. 987654321 0
<u>0 Not Tried</u>	Graham Cracker Torte	72. 987654321 0
	Blueberry Cobbler	73. 987654321 0
	Berry Crisp	74. 987654321 0
	Apples	75. 987654321 0
	Cookies	76. 987654321 0
	Angel Food Cake	77. 987654321 0
	Cupcake	78. 987654321 0
	Peach Topped Cake	79. 987654321 0
	Grapes	80. 987654321 0

FOOD ATTITUDE INVENTORY (Ac)

Directions: Blacken the score (9-1) that describes your feeling about each of the following food items served to you in MSU dining halls. Please follow the KEY to the left. Remember 9 is the highest rating, 1 is the lowest rating of foods you have eaten, and 0 means you have not tried the food.

KEY	FOOD ITEMS	SCORE
	Chili-Mac	81. 987654321 0
	Chow Mein on Noodles	82. 987654321 0
9 Like	Grilled Ham Steak	83. 987654321 0
Extremely	Spanish Steak	84. 987654321 0
	Grilled Ham Sandwich	85. 987654321 0
8 Like	Hamburger Steak w/Mushroom Gravy	86. 987654321 0
Very Much	B-B-Q Spare Ribs	87. 987654321 0
	Hamburger Pie	88. 987654321 0
7 Like	Hot Beef Sandwich	89. 987654321 0
Moderately	B-B-Q Sliced Beef on Bun	90. 987654321 0
	Liver w/Onions	91. 987654321 0
6 Like	Minute Steak	92. 987654321 0
Slightly	Salisbury Steak	93. 987654321 0
	Corned Beef on Rye	94. 987654321 0
5 Neither	Salmon Loaf w/Fresh Pea Sauce	95. 987654321 0
Like nor	Pork Cutlets	96. 987654321 0
Dislike	Chicken a La King on Rice	97. 987654321 0
	Fillet of Sole	98. 987654321 0
4 Dislike	Hot Meat Loaf Sandwich	99. 987654321 0
Slightly	Grilled Ham and Chili	100. 987654321 0
	Fried Sausage Patty	101. 987654321 0
3 Dislike	Macaroni Salad	102. 987654321 0
Moderately	Jello Salad	103. 987654321 0
	Chocolate Pudding	104. 987654321 0
2 Dislike	Tapioca Pudding	105. 987654321 0
Very Much	Pumpkin Pie	106. 987654321 0
	Lemon Chiffon Pie	107. 987654321 0
1 Dislike	Apple Pie	108. 987654321 0
Extremely	Apple Crisp	109. 987654321 0
	Cherry Turnover	110. 987654321 0
	Donut a La Mode	111. 987654321 0
0 Not Tried	Fruit Bars	112. 987654321 0
	Chinese Chews	113. 987654321 0
	Brownies	114. 987654321 0
	Bananas	115. 987654321 0
	Canned Fruit	116. 987654321 0
	Devils Food Cake	117. 987654321 0
	White Cake	118. 987654321 0
	Iced Cake	119. 987654321 0
	Pineapple Upside Down Cake	120. 987654321 0

APPENDIX C

Food Attitude Inventory B

FOOD ATTITUDE INVENTORY (Ba)

Directions: Blacken the score (7-1) that tells how often you would like to eat each of the food items served to you in MSU dining halls. Please follow the KEY to the left. Remember 7 is most often and 1 is least often or never.

KEY	FOOD ITEMS	SCORE
	Wieners & Buns	1. 7654321
	Country Fried Steak	2. 7654321
7 Once a day	Roast Beef	3. 7654321
	Fried Chicken	4. 7654321
6 Several times a week	Cubed Steak	5. 7654321
	Fish Sticks	6. 7654321
	Beef Stew w/Biscuits	7. 7654321
5 Twice a week	Chicken Noodle Casserole	8. 7654321
	Italian Spaghetti	9. 7654321
4 Once a week	Turkey & Dressing	10. 7654321
	Halibut w/Lemon	11. 7654321
3 Once every two weeks	Chicken Salad Sandwich	12. 7654321
	B-B-Q Pork Chops	13. 7654321
	Turkey Noodle Casserole	14. 7654321
2 Once a month	Liver & Bacon	15. 7654321
	Meat Leaf	16. 7654321
1 Rarely or never	N.E. Boiled Dinner w/Brisket	17. 7654321
	Pizza	18. 7654321
	Bacon, Lettuce, Tomato Sandwich	19. 7654321
	New York Steak	20. 7654321
	Fried Breakfast Ham	21. 7654321
	Cottage Cheese Salad	22. 7654321
	Egg Salad	23. 7654321
	Butterscotch Pudding	24. 7654321
	Vanilla Pudding	25. 7654321
	Coconut Cream Pie	26. 7654321
	Strawberry Chiffon Pie	27. 7654321
	Lemon Meringue Pie	28. 7654321
	Strawberry Shortcake	29. 7654321
	Apple Turnover	30. 7654321
	Cherry Crisp	31. 7654321
	Fruit Cobbler	32. 7654321
	Cottage Pudding w/Cherry Sauce	33. 7654321
	Raspberry Sundae	34. 7654321
	Choc. Chip Blonde Brownies	35. 7654321
	Oranges	36. 7654321
	Icecream	37. 7654321
	Chocolate Cake	38. 7654321
	German Chocolate Cake	39. 7654321
	Spice Cake	40. 7654321

FOOD ATTITUDE INVENTORY (Bb)

Directions: Blacken the score (7-1) that tells how often you would like to eat each of the food items served to you in MSU dining halls. Please follow the KEY to the left. Remember 7 is most often and 1 is least often or never.

KEY	FOOD ITEMS	SCORE
7 Once a day	Pork Chops	41. 7654321
	Cold Cuts & Cheese	42. 7654321
6 Several times a week	Sloppy Joes	43. 7654321
	B-B-Q Roast Pork	44. 7654321
	Grilled Cheese Sandwich	45. 7654321
5 Twice a week	Macaroni & Cheese	46. 7654321
	Baked Ham	47. 7654321
4 Once a week	Chili	48. 7654321
	Turkey a La King	49. 7654321
3 Once every two weeks	Tuna Noodle Casserole	50. 7654321
	Lasagna	51. 7654321
	Hamburgers	52. 7654321
2 Once a month	Hot Pork Sandwiches	53. 7654321
	Swiss Steak	54. 7654321
1 Rarely or never	Fruit Plate	55. 7654321
	Baked Beans	56. 7654321
	Roast Pork	57. 7654321
	Turkey Pie	58. 7654321
	Salmon Steak	59. 7654321
	Fried Bacon	60. 7654321
	Fried Link Sausage	61. 7654321
	Ham Salad	62. 7654321
	Tossed Salad	63. 7654321
	Lemon Pudding	64. 7654321
	Fruit Cocktail Pudding	65. 7654321
	Chocolate Chiffon Pie	66. 7654321
	Banana Cream Pie	67. 7654321
	Frozen Cherry Pie	68. 7654321
	Fruit Cobbler	69. 7654321
	Jelly Roll	70. 7654321
Cream Puff	71. 7654321	
Graham Cracker Torte	72. 7654321	
Blueberry Cobbler	73. 7654321	
Berry Crisp	74. 7654321	
Apples	75. 7654321	
Cookies	76. 7654321	
Angel Food Cake	77. 7654321	
Cupcake	78. 7654321	
Peach Topped Cake	79. 7654321	
Grapes	80. 7654321	

FOOD ATTITUDE INVENTORY (Bc)

Directions: Blacken the score (7-1) that tells how often you would like to eat each of the food items served to you in MSU dining halls. Please follow the KEY to the left. Remember 7 is most often and 1 is least often or never.

KEY	FOOD ITEMS	SCORE
	Chili-Mac	81. 7654321
	Chow Mein on Noodles	82. 765432
7 Once a day	Grilled Ham Steak	83. 7654321
	Spanish Steak	84. 7654321
6 Several times a week	Grilled Ham Sandwich	85. 7654321
	Hamburger Steak w/Mushroom Gravy	86. 7654321
	B-B-Q Spare Ribs	87. 7654321
5 Twice a week	Hamburger Pie	88. 7654321
	Hot Beef Sandwich	89. 7654321
4 Once a week	B-B-Q Sliced Beef on Bun	90. 7654321
	Liver w/Onions	91. 7654321
3 Once every two weeks	Minute Steak	92. 7654321
	Salisbury Steak	93. 7654321
	Corned Beef on Rye	94. 7654321
2 Once a month	Salmon Loaf w/Fresh Pea Sauce	95. 7654321
	Pork Cutlets	96. 7654321
1 Rarely or never	Chicken a La King on Rice	97. 7654321
	Fillet of Sole	98. 7654321
	Hot Meat Loaf Sandwich	99. 7654321
	Grilled Ham and Chili	100. 7654321
	Fried Sausage Patty	101. 7654321
	Macaroni Salad	102. 7654321
	Jello Salad	103. 7654321
	Chocolate Pudding	104. 7654321
	Tapioca Pudding	105. 7654321
	Pumpkin Pie	106. 7654321
	Lemon Chiffon Pie	107. 7654321
	Apple Pie	108. 7654321
	Apple Crisp	109. 7654321
	Cherry Turnover	110. 7654321
	Donut a La Mode	111. 7654321
	Fruit Bars	112. 7654321
	Chinese Chews	113. 7654321
	Brownies	114. 7654321
	Bananas	115. 7654321
	Canned Fruit	116. 7654321
	Devils Food Cake	117. 7654321
	White Cake	118. 7654321
	Iced Cake	119. 7654321
	Pineapple Upside Down Cake	120. 7654321

APPENDIX D

Rank and Weighted Averages for all Foods

TABLE I

Food Preference of the Sample Population

Food	Rank	Wt. Avg.
New York Steak	1	7.438
Oranges	2	7.346
Ice Cream	3	7.208
Apple Pie	4	7.147
Bananas	5	6.866
Turkey and Dressing	6	6.857
Tossed Salad	7	6.787
German Chocolate Cake	8	6.755
Strawberry Shortcake	9	6.616
Raspberry Sundae	10	6.581
Apples	11	6.550
Bacon, Lettuce, Tomato Sandwich	12	6.503
Chocolate Cake	13	6.457
Banana Cream Pie	14	6.433
Coconut Cream Pie	15	6.370
Lemon Meringue Pie	16	6.331
Canned Fruit	17	6.324
Fried Breakfast Ham	18	6.314
Lemon Chiffon Pie	19	6.300
Cherry Crisp	20	6.265
Roast Beef	21	6.259
Devil's Food Cake	22	6.243
Brownies	23	6.242
Chocolate Pudding	24	6.215
Cherry Turnover	25	6.214
Apple Crisp	26	6.187
Hot Beef Sandwich	27	6.147
Frozen Cherry Pie	28	6.110
Italian Spaghetti	29	6.110
Country Fried Steak	30	6.021
Hamburgers	31	6.020
Baked Ham	32	6.019
Fried Chicken	33	5.998
Strawberry Chiffon Pie	34	5.997
Grilled Cheese Sandwich	35	5.983
Butterscotch Pudding	36	5.968

TABLE I--Continued

Food	Rank	Wt. Avg.
Tapioca Pudding	37	5.965
Grilled Ham Steak	38	5.943
Iced Cake	38	5.943
Jello Salad	39	5.918
Grilled Ham and Chili	40	5.913
White Cake	41	5.837
Spice Cake	42	5.836
Wieners and Buns	43	5.804
Chili	44	5.774
Chocolate Chip Blonde Brownies	45	5.746
Chocolate Chiffon Pie	46	5.736
Roast Pork	47	5.731
Fruit Plate	48	5.685
Pumpkin Pie	49	5.668
Vanilla Pudding	50	5.603
Fried Bacon	51	5.591
Grilled Ham Sandwich	52	5.577
Pork Cutlets	53	5.522
Pineapple Upside Down Cake	54	5.503
Hot Pork Sandwich	55	5.500
Donut a la Mode	56	5.486
Fruit Cobbler	57	5.464
Fish Sticks	58	5.449
Pizza	59	5.435
Apple Turnover	60	5.405
Fried Link Sausage	61	5.383
Sloppy Joes	62	5.376
Cream Puff	63	5.371
Lemon Pudding	64	5.308
Blueberry Cobbler	65	5.294
Chicken a la King on Rice	66	5.253
Barbeque Spare Ribs	67	5.243
Hamburger Steak w/Mushroom Gravy	68	5.224
Cookies	69	5.209
Cupcake	70	5.197
Grapes	71	5.169
Swiss Steak	72	5.132
Angel Food Cake	73	5.080
Jelly Roll	74	5.069

TABLE I--Continued

Food	Rank	Wt. Avg.
Turkey Pie	75	5.058
Barbeque Sliced Beef on Bun	76	5.056
Turkey a la King	77	5.038
Chicken Noodle Casserole	78	5.026
Fruit Bars	79	5.018
Berry Crisp	80	5.010
Cubed Steak	81	4.983
Halibut w/Lemon	82	4.975
Hot Meat Loaf Sandwich	83	4.943
Fruit Cobbler	84	4.873
Peach Topped Cake	85	4.856
Fried Sausage Patty	86	4.842
Meat Loaf	87	4.828
Tuna Noodle Casserole	88	4.803
Beef Stew w/Biscuits	89	4.796
Minute Steak	90	4.794
Turkey Noodle Casserole	91	4.793
Salisbury Steak	92	4.784
Barbeque Pork Chops	93	4.782
Pork Chops	94	4.777
Barbeque Roast Pork	95	4.771
Lasagna	96	4.765
Cottage Cheese Salad	97	4.759
Fillet of Sole	98	4.718
Chili-Mac	99	4.704
Fruit Cocktail Pudding	100	4.690
Salmon Steak	101	4.685
Graham Cracker Torte	102	4.682
Egg Salad	103	4.651
Chinese Chews	104	4.627
Spanish Steak	105	4.557
Cold Cuts and Cheese	106	4.553
Chicken Salad Sandwich	107	4.471
Chow Mein on Noodles	108	4.357
Baked Beans	109	4.345
Cottage Pudding w/Cherry Sauce	110	4.325
Macaroni Salad	111	4.264
Macaroni and Cheese	112	4.260

TABLE I--Continued

Food	Rank	Wt. Avg.
Hamburger Pie	113	4.174
Liver w/Onions	114	4.133
Corned Beef on Rye	115	4.008
Ham Salad	116	3.889
New England Boiled Dinner w/Brisket	117	3.771
Salmon Loaf w/Fresh Pea Sauce	118	3.756
Liver and Bacon	119	3.724

Foods are ranked with 1 being most preferred.

TABLE II

Food Serving Desirability of the Sample Population

Food	Rank	Wt. Avg.
Tossed Salad	1	5.441
Ice Cream	2	5.267
Apple Pie	3	4.874
New York Steak	4	4.847
Jello Salad	5	4.836
Oranges	6	4.816
Apples	7	4.593
Canned Fruit	8	4.562
Bananas	9	4.523
Fried Breakfast Ham	10	4.457
Fruit Plate	11	4.437
Fried Bacon	12	4.377
Strawberry Shortcake	13	4.361
Raspberry Sundae	14	4.320
Lemon Chiffon Pie	15	4.304
Roast Beef	16	4.287
German Chocolate Cake	17	4.234
Chocolate Cake	18	4.228
Apple Crisp	19	4.163
Banana Cream Pie	20	4.177
Hamburgers	21	4.160
Country Fried Steak	22	4.099
Lemon Meringue Pie	23	4.084
Cherry Crisp	24	4.067
Brownies	25	4.038
White Cake	25	4.038
Baked Ham	26	3.991
Chocolate Pudding	27	3.976
Cherry Turnover	28	3.968
Bacon, Lettuce, Tomato Sandwich	29	3.954
Cookies	30	3.945
Iced Cake	31	3.937
Grilled Ham Steak	32	3.936
Devil's Food Cake	33	3.927
Chocolate Chip Blonde Brownies	34	3.855
Fried Link Sausage	35	3.851

TABLE II-Continued

Food	Rank	Wt. Avg.
Coconut Cream Pie	36	3.846
Grilled Cheese Sandwich	37	3.833
Turkey and Dressing	38	3.832
Grilled Ham and Chili	39	3.826
Donut a la Mode	40	3.818
Sloppy Joes	41	3.812
Grapes	42	3.809
Tapioca Pudding	43	3.787
Frozen Cherry Pie	44	3.774
Hot Beef Sandwich	45	3.767
Strawberry Chiffon Pie	46	3.763
Fruit Cobbler	47	3.749
Pumpkin Pie	48	3.724
Fried Chicken	49	3.715
Grilled Ham Sandwich	50	3.711
Pork Cutlets	51	3.708
Chocolate Chiffon Pie	52	3.689
Chili	53	3.687
Angel Food Cake	54	3.601
Pork Chops	55	3.577
Roast Pork	56	3.570
Cupcake	57	3.562
Spice Cake	58	3.561
Apple Turnover	59	3.549
Hot Pork Sandwich	60	3.530
Wieners and Buns	61	3.503
Pineapple Upside Down Cake	62	3.463
Cubed Steak	63	3.453
Cold Cuts and Cheese	64	3.449
Hamburger Steak w/Mushroom Gravy	65	3.444
Swiss Steak	66	3.395
Butterscotch Pudding	67	3.393
Fruit Bars	68	3.390
Fruit Cobbler	69	3.345
Cream Puff	70	3.343
Peach Topped Cake	70	3.343
Berry Crisp	71	3.340
Turkey a la King	72	3.301

TABLE II--Continued

Food	Rank	Wt. Avg.
Chili-Mac	73	3.290
Minute Steak	73	3.290
Lemon Pudding	74	3.273
Italian Spaghetti	75	3.259
Blueberry Cobbler	76	3.241
Jelly Roll	77	3.232
Salisbury Steak	78	3.229
Vanilla Pudding	79	3.203
Fruit Cocktail Pudding	80	3.173
Halibut w/Lemon	81	3.167
Barbeque Spare Ribs	82	3.118
Lasagna	83	3.103
Cottage Cheese Salad	84	3.099
Hot Meat Loaf Sandwich	85	3.094
Graham Cracker Torte	86	3.069
Barbeque Roast Pork	87	3.054
Salmon Steak	88	3.038
Macaroni Salad	89	2.999
Tuna Noodle Casserole	90	2.984
Pizza	91	2.976
Beef Stew w/Biscuits	92	2.953
Fish Sticks	92	2.953
Barbeque Pork Chops	93	2.927
Fillet of Sole	94	2.888
Egg Salad	95	2.879
Barbeque Sliced Beef on Bun	96	2.873
Chicken a la King on Rice	97	2.857
Fried Sausage Patty	97	2.857
Chicken Noodle Casserole	98	2.843
Hamburger Pie	99	2.824
Turkey Pie	100	2.809
Meat Loaf	101	2.794
Spanish Steak	102	2.773
Ham Salad	103	2.700
Chinese Chews	104	2.716
Baked Beans	105	2.690
Cottage Pudding w/Cherry Sauce	106	2.627
Macaroni and Cheese	107	2.588

TABLE II--Continued

Food	Rank	Wt. Avg.
Chicken Salad Sandwich	108	2.572
Turkey Noodle Casserole	109	2.538
Chow Mein on Noodles	110	2.499
Salmon Loaf w/Fresh Pea Sauce	111	2.384
Corned Beef on Rye	112	2.298
Liver w/Onions	113	2.171
New England Boiled Dinner w/Brisket	114	2.085
Liver and Bacon	115	2.083

Foods are ranked with 1 being most preferred.

TABLE III

Food Preference of the Coed Dining Hall

Food	Coed Dining Hall			Sample Pop
	Men	Women	Average	
	Weighted Averages			
Wieners & Buns	5.771	6.235	5.909	5.804
Country Fried Steak	5.899	6.481	6.102	6.021
Roast Beef	6.174	5.941	6.104	6.259
Fried Chicken	5.348	6.581	5.716	5.998
Cubed Steak	4.824	5.647	5.069	4.983
Fish Sticks	4.624	5.528	4.893	5.449
Beef Stew w/Biscuits	4.598	5.928	4.943	4.796
Chicken Noodle Casserole	4.664	5.333	4.853	5.026
Italian Spaghetti	5.737	6.470	5.957	6.110
Turkey & Dressing	6.923	7.117	6.981	6.857
Halibut w/Lemon	4.573	5.437	4.820	4.975
Chicken Salad Sandwich	4.264	5.294	4.607	4.471
Barbeque Pork Chops	4.783	5.562	5.018	4.782
Turkey Noodle Casserole	4.529	5.000	4.662	4.793
Liver and Bacon	3.443	3.823	3.565	3.724
Meat Loaf	4.837	4.294	4.666	4.828
N.E. Boiled Dinner w/Brisket	3.624	4.666	3.908	3.771

TABLE III-Continued

Food	Coed Dining Hall			Sample Pop
	Men	Women	Average	
Weighted Averages				
Pizza	5.299	5.529	5.368	5.435
Bacon, Lettuce, Tomato Sandwich	6.513	7.062	6.678	6.503
New York Steak	6.919	6.861	6.903	7.438
Fried Breakfast Ham	5.815	6.875	6.129	6.314
Cottage Cheese Salad	4.057	5.312	4.450	4.759
Egg Salad	4.706	3.937	4.478	4.651
Butterscotch Pudding	6.729	5.529	6.351	5.968
Vanilla Pudding	5.999	5.235	5.754	5.603
Coconut Cream Pie	6.323	5.941	6.203	6.370
Strawberry Chiffon Pie	5.742	4.833	5.510	5.997
Lemon Meringue Pie	6.599	6.750	6.631	6.331
Strawberry Shortcake	6.333	6.881	6.499	6.616
Apple Turnover	5.098	5.176	5.122	5.405
Cherry Crisp	6.148	6.625	6.284	6.265
Fruit Cobbler	5.900	5.764	5.308	5.464
Cottage Pudding w/Cherry Sauce	3.639	4.222	3.793	4.325
Raspberry Sundae	6.120	7.076	6.470	6.581

TABLE III--Continued

Food	Coed Dining Hall			Sample Pop
	Men	Women	Average	
Weighted Averages				
Chocolate Chip Blonde Brownies	5.121	6.071	4.814	5.746
Oranges	6.642	7.372	6.875	7.346
Ice Cream	6.724	7.470	6.946	7.208
Chocolate Cake	6.299	6.175	6.261	6.457
German Chocolate Cake	6.289	6.642	6.384	6.755
Spice Cake	5.288	6.058	5.526	5.836
Pork Chops	4.858	6.150	5.268	4.777
Cold Cuts & Cheese	4.441	4.550	4.475	4.553
Sloppy Joes	4.999	5.250	4.999	5.376
Barbeque Roast Pork	5.100	5.367	5.185	4.771
Grilled Cheese Sandwich	6.141	6.105	6.130	5.983
Macaroni & Cheese	3.828	4.550	4.065	4.260
Baked Ham	5.553	6.573	5.866	6.019
Chili	5.666	6.523	5.933	5.774
Turkey a la King	4.358	4.705	4.463	5.038
Tuna Noodle Casserole	4.188	4.500	4.282	4.803
Lasagna	4.756	4.300	4.596	4.765
Hamburgers	5.951	6.210	6.031	6.020

TABLE III-Continued

Food	Coed Dining Hall			Sample Pop
	Men	Women	Average	
Weighted Averages				
Hot Pork Sandwiches	5.283	5.662	5.397	5.500
Swiss Steak	5.449	4.631	5.185	5.132
Fruit Plate	4.675	6.800	5.326	5.685
Baked Beans	4.073	5.000	4.338	4.345
Roast Pork	5.614	6.210	5.800	5.731
Turkey Pie	4.428	5.142	4.631	5.058
Salmon Steak	4.750	3.571	4.444	4.685
Fried Bacon	5.149	5.705	5.315	5.591
Fried Link Sausage	5.390	4.933	5.267	5.383
Ham Salad	3.781	5.980	4.533	3.889
Tossed Salad	5.822	8.161	6.548	6.787
Lemon Pudding	4.829	5.307	4.879	5.308
Fruit Cocktail Pudding	4.972	4.600	4.893	4.690
Chocolate Chiffon Pie	5.573	6.900	5.839	5.736
Banana Cream Pie	5.799	7.370	6.248	6.433
Frozen Cherry Pie	5.745	6.250	5.889	6.110
Fruit Cobbler	5.270	6.066	5.487	4.873
Jelly Roll	5.389	4.176	5.033	5.069

TABLE III--Continued

Food	Coed Dining Hall			Sample Pop
	Men	Women	Average	
	Weighted Averages			
Cream Puff	4.999	5.333	5.101	5.371
Graham Cracker Torte	3.999	6.833	4.755	4.682
Blueberry Cobbler	4.972	6.000	5.205	5.294
Berry Crisp	4.473	6.500	4.983	5.010
Apples	6.139	7.841	6.641	6.550
Cookies	4.777	5.722	5.065	5.209
Angel Food Cake	4.658	4.785	4.690	5.080
Cupcake	4.535	5.900	4.899	5.197
Peach Topped Cake	4.799	5.214	4.906	4.856
Grapes	4.482	4.812	4.546	5.169
Chili-Mac	4.249	5.470	4.640	4.704
Chow Mein on Noodles	3.621	5.471	4.325	4.357
Grilled Ham Steak	5.947	5.944	5.946	5.943
Hamburger Steak w/Mushroom Gravy	4.900	4.368	4.728	5.224
Barbeque Spare Ribs	4.908	5.631	5.162	5.243
Hamburger Pie	3.085	4.765	3.634	4.174
Hot Beef Sandwich	5.975	6.526	6.152	6.147
Barbeque Sliced Beef on Bun	5.360	5.525	5.417	5.056

TABLE III--Continued

Food	Coed Dining Hall			Sample Pop
	Men	Women	Average	
Weighted Averages				
Liver with Onions	4.110	2.526	3.563	4.133
Minute Steak	4.513	5.444	4.829	4.794
Salisbury Steak	4.410	5.058	4.606	4.784
Corned Beef on Rye	3.514	4.125	3.714	4.008
Salmon Loaf w/Fresh Pea Sauce	3.234	3.812	3.419	3.756
Pork Cutlets	5.050	5.772	5.278	5.522
Chicken a la King on Rice	4.567	5.687	4.905	5.253
Fillet of Sole	4.371	6.200	4.919	4.718
Hot Meat Loaf Sandwich	4.472	4.844	4.596	4.943
Grilled Ham and Chili	5.512	6.623	5.835	5.913
Fried Sausage Patty	4.940	5.277	5.057	4.842
Macaroni Salad	3.456	5.777	4.244	4.264
Jello Salad	5.361	6.722	5.814	5.918
Chocolate Pudding	7.000	6.555	6.853	6.125
Tapioca Pudding	6.252	6.770	6.425	5.965
Pumpkin Pie	5.973	6.000	5.982	5.668
Lemon Chiffon Pie	6.216	7.831	6.744	6.300
Apple Pie	7.230	7.631	7.361	7.147

TABLE III-Continued

Food	Coed Dining Hall			Sample Pop
	Men	Women	Average	
	Weighted Averages			
Apple Crisp	5.845	6.705	6.106	6.187
Cherry Turnover	6.188	6.156	6.177	6.214
Donut a la Mode	5.085	6.214	5.407	5.486
Fruit Bars	5.161	5.533	5.282	5.018
Chinese Chews	4.363	4.583	4.440	4.627
Brownies	5.241	6.666	5.699	6.242
Bananas	6.499	7.153	6.733	6.866
Canned Fruit	6.296	5.891	6.159	6.324
Devil's Food Cake	6.289	6.315	6.297	6.243
White Cake	5.602	5.890	5.699	5.837
Iced Cake	5.615	6.315	5.844	5.943
Pineapple Upside Down Cake	5.332	5.058	3.244	5.503

Foods are scored from 9, like extremely, to 1, dislike extremely.

TABLE IV

Food Serving Desirability of the Coed Dining Hall

Food	Coed Dining Hall			Sample Pop
	Men	Women	Sample	
Weighted Averages				
Wieners & Buns	3.324	3.555	3.417	3.503
Country Fried Steak	4.124	3.925	4.043	4.099
Roast Beef	4.349	3.703	4.088	4.287
Fried Chicken	3.631	3.629	3.630	3.715
Cubed Steak	3.349	3.307	3.332	3.453
Fish Sticks	2.897	3.148	2.999	2.953
Beef Stew w/Biscuits	3.076	2.961	3.030	2.953
Chicken Noodle Casserole	2.774	2.730	2.756	2.843
Italian Spaghetti	2.922	3.703	3.241	3.259
Turkey & Dressing	3.949	3.518	3.775	3.832
Halibut w/Lemon	3.384	3.111	3.272	3.167
Chicken Salad Sandwich	3.411	2.769	2.404	2.572
Barbeque Pork Chops	3.274	2.518	2.969	2.927
Turkey Noodle Casserole	2.409	2.615	2.491	2.538
Liver and Bacon	2.074	2.074	2.074	2.083
Meat Loaf	2.774	2.888	2.820	2.794
New England Boiled Dinner w/Brisket	2.333	.1925	2.166	2.085

TABLE IV--Continued

Food	Coed Dining Hall			Sample Pop
	Men	Women	Sample	
	Weighted Averages			
Pizza	2.640	3.111	2.832	2.976
Bacon, Lettuce, Tomato Sandwich	4.025	4.555	4.178	3.954
New York Steak	5.274	4.111	4.805	4.847
Fried Breakfast Ham	4.674	4.000	4.402	4.457
Cottage Cheese Salad	2.684	3.555	3.045	3.099
Egg Salad	2.871	3.037	2.939	2.879
Butterscotch Pudding	3.674	3.333	3.536	3.393
Vanilla Pudding	3.299	2.962	3.163	3.203
Coconut Cream Pie	4.332	2.777	3.696	3.846
Strawberry Chiffon Pie	4.179	3.222	3.787	3.763
Lemon Meringue Pie	4.307	3.592	4.014	4.084
Strawberry Shortcake	5.131	3.222	4.338	4.361
Apple Turnover	3.948	3.037	3.575	3.549
Cherry Crisp	3.924	3.814	3.880	4.067
Fruit Cobbler	3.717	3.615	3.676	3.345
Cottage Pudding w/Cherry Sauce	2.820	2.700	2.772	2.627
Raspberry Sundae	4.127	4.555	4.302	4.320

TABLE IV--Continued

Food	Coed Dining Hall			Sample Pop
	Men	Women	Sample	
Weighted Averages				
Chocolate Chip Blonde Brownies	3.574	4.000	3.746	3.855
Oranges	4.149	5.470	4.641	4.816
Ice Cream	5.099	5.222	5.148	5.267
Chocolate Cake	3.948	4.037	3.984	4.228
German Chocolate Cake	4.149	4.037	4.104	4.234
Spice Cake	3.717	3.500	3.630	3.561
Pork Chops	3.170	3.444	3.279	3.577
Cold Cuts & Cheese	3.121	3.814	3.396	3.449
Sloppy Joes	4.024	4.111	4.058	3.812
Barbeque Roast Pork	3.219	2.884	3.089	3.054
Grilled Cheese Sandwich	4.128	3.814	3.999	3.833
Macaroni & Cheese	2.316	2.851	2.528	2.588
Baked Ham	4.219	3.925	2.778	3.991
Chili	3.536	3.884	3.617	3.687
Turkey a la King	3.073	3.592	3.279	3.301
Tuna Noodle Casserole	2.585	3.962	3.131	2.984
Lasagna	2.804	3.666	3.146	3.103
Hamburgers	4.578	4.481	4.537	4.160

TABLE IV--Continued

Food	Coed Dining Hall			Sample Pop
	Men	Women	Sample	
Weighted Averages				
Hot Pork Sandwiches	3.243	3.962	3.528	3.530
Swiss Steak	3.658	3.333	3.529	3.395
Fruit Plate	3.829	5.111	4.338	4.437
Baked Beans	2.734	2.444	2.617	2.690
Roast Pork	3.725	3.555	3.656	3.570
Turkey Pie	2.682	3.259	2.911	2.809
Salmon Steak	2.699	2.962	2.805	3.038
Fried Bacon	4.424	4.629	4.440	4.377
Fried Link Sausage	4.195	3.703	3.999	3.851
Ham Salad	2.949	2.703	2.850	2.700
Tossed Salad	4.853	6.111	5.352	5.441
Lemon Pudding	3.219	3.370	3.279	3.273
Fruit Cocktail Pudding	3.524	2.000	3.313	3.173
Chocolate Chiffon Pie	4.073	3.703	3.926	3.689
Banana Cream Pie	4.170	3.888	4.058	3.774
Frozen Cherry Pie	4.170	3.888	4.058	3.774
Fruit Cobbler	3.999	4.074	4.029	3.749
Jelly Roll	3.414	3.481	3.440	3.232

TABLE IV--Continued

Food	Coed Dining Hall			Sample Pop
	Men	Women	Sample	
	Weighted Averages			
Cream Puff	3.243	3.888	3.499	3.343
Graham Cracker Torte	3.341	3.407	3.367	3.069
Blueberry Cobbler	3.853	4.000	3.308	3.241
Berry Crisp	3.731	3.555	3.661	3.340
Apples	3.524	5.925	4.492	4.593
Cookies	3.268	4.777	3.867	3.945
Angel Food Cake	3.512	4.074	3.735	3.601
Cupcake	3.549	4.111	3.775	3.562
Peach Topped Cake	3.853	3.000	3.514	3.343
Grapes	3.639	4.222	3.852	3.809
Chili-Mac	3.342	2.851	3.879	3.290
Chow Mein on Noodles	2.427	2.357	2.396	2.499
Grilled Ham Steak	4.399	3.740	4.112	3.936
Spanish Steak	2.599	2.821	2.697	2.773
Grilled Ham Sandwich	3.848	3.785	3.819	3.711
Hamburger Steak w/Mushroom Gravy	3.742	3.071	3.444	3.444
Barbeque Spare Ribs	3.056	3.333	3.177	3.118
Hamburger Pie	2.675	3.000	2.822	2.824

TABLE IV--Continued

Food	Coed Dining Hall			Sample Pop
	Men	Women	Sample	
Weighted Averages				
Hot Beef Sandwich	4.085	3.464	3.109	3.767
Barbeque Sliced Beef on Bun	2.999	3.035	3.015	2.873
Liver with Onions	2.441	1.464	1.999	2.171
Minute Steak	3.393	2.892	3.163	3.290
Salisbury Steak	3.285	3.307	3.294	3.229
Corned Beef on Rye	2.542	2.142	2.364	2.298
Salmon Loaf w/Fresh Pea Sauce	2.142	2.607	2.348	2.384
Pork Cutlets	3.911	3.464	3.709	3.708
Chicken a la King on Rice	2.542	3.000	2.745	2.857
Fillet of Sole	2.999	3.307	3.130	2.888
Hot Meat Loaf Sandwich	3.542	2.925	3.273	3.094
Grilled Ham and Chili	3.911	4.259	4.065	3.826
Fried Sausage Patty	3.382	3.000	3.015	2.857
Macaroni Salad	2.628	3.750	3.126	2.999
Jello Salad	4.256	5.557	4.745	4.836
Chocolate Pudding	4.285	4.357	4.317	3.976
Tapioca Pudding	3.770	4.607	4.142	3.787
Pumpkin Pie	4.058	3.571	3.838	3.724

TABLE IV--Continued

Food	Coed Dining Hall			Sample Pop
	Men	Women	Sample	
	Weighted Averages			
Lemon Chiffon Pie	4.513	4.678	4.586	4.304
Apple Pie	5.713	4.035	4.967	3.874
Apple Crisp	4.628	3.785	4.248	4.163
Cherry Turnover	3.770	4.035	3.888	3.968
Donut a la Mode	4.142	3.821	4.060	3.818
Fruit Bars	3.315	3.321	3.317	3.390
Chinese Chews	2.293	3.035	2.628	2.716
Brownies	3.885	4.785	4.286	4.038
Bananas	4.199	4.071	4.142	4.523
Canned Fruit	4.056	4.607	4.301	4.562
Devil's Food Cake	3.771	4.285	3.999	3.927
White Cake	4.028	4.107	4.063	4.038
Iced Cake	3.799	4.250	3.999	3.937
Pineapple Upside Down Cake	3.587	3.821	3.693	3.463

Foods are scored from 7, once a day, to 1, rarely or never.

TABLE V

Food Preference of the Dining Halls

Food	Sample Pop	Lewis & Clark Hedges		
		Hannon	Weighted Averages	
Wieners & Buns	5.804	5.474	6.000	5.909
Country Fried Steak	6.021	5.124	6.138	6.120
Roast Beef	6.259	5.925	6.860	6.104
Fried Chicken	5.998	6.449	5.945	5.716
Cubed Steak	4.983	4.499	5.385	5.069
Fish Sticks	5.449	5.794	5.941	4.893
Beef Stew w/Biscuits	4.796	4.815	4.685	4.943
Chicken Noodle Casserole	5.026	5.710	4.572	4.853
Italian Spaghetti	6.110	6.199	6.257	5.957
Turkey & Dressing	6.857	6.524	7.026	6.981
Halibut w/Lemon	4.975	5.256	4.912	4.820
Chicken Salad Sandwich	4.471	4.868	3.860	4.607
Barbeque Pork Chops	4.782	4.307	4.972	5.018
Turkey Noodle Casserole	4.793	5.724	4.219	4.662
Liver and Bacon	3.724	3.888	3.799	3.565
Meat Loaf	4.828	5.199	4.654	4.666
New England Boiled Dinner w/Brisket	3.771	4.260	3.079	3.908

TABLE V--Continued

Food	Sample Pop	Lewis & Clark Hedges		
		Weighted Averages		
Pizza	5.435	5.487	5.485	5.368
Bacon, Lettuce, Tomato Sandwich	6.503	6.563	6.170	6.678
New York Steak	7.438	7.486	8.000	6.903
Fried Breakfast Ham	6.314	6.080	6.831	6.129
Cottage Cheese Salad	4.759	4.820	5.030	4.450
Egg Salad	4.651	5.179	4.289	4.473
Butterscotch Pudding	5.967	5.500	5.888	6.351
Vanilla Pudding	5.603	5.864	5.083	5.754
Coconut Cream Pie	6.370	6.550	6.429	6.203
Strawberry Chiffon Pie	5.997	6.087	6.582	5.510
Lemon Meringue Pie	6.331	5.661	6.580	6.631
Strawberry Shortcake	6.616	6.631	6.779	6.499
Apple Turnover	5.405	5.315	5.941	5.122
Cherry Crisp	6.265	5.473	6.239	6.284
Fruit Cobbler	5.464	5.249	5.968	5.308
Cottage Pudding w/Cherry Sauce	4.325	4.681	4.665	3.793
Raspberry Sundae	6.581	6.360	7.086	6.470

TABLE V--Continued

Food	Sample Pop	Hannon	Lewis & Clark	Hedges
	Weighted Averages			
Chocolate Chip Blonde Brownies	5.746	6.454	5.910	4.814
Oranges	7.356	7.820	7.496	6.875
Ice Cream	7.208	7.307	7.508	6.946
Chocolate Cake	6.457	6.729	6.405	6.261
German Chocolate Cake	6.755	7.161	6.881	6.384
Spice Cake	5.836	6.368	5.748	5.526
Pork Chops	4.777	5.906	5.382	5.268
Cold Cuts & Cheese	4.553	5.404	4.529	4.475
Sloppy Joes	5.376	5.620	5.624	4.999
Barbeque Roast Pork	4.771	3.761	4.878	5.185
Grilled Cheese Sandwich	5.983	5.837	5.911	6.130
Macaroni & Cheese	4.260	4.255	4.627	4.065
Baked Ham	6.019	6.115	6.176	5.866
Chili	5.774	6.371	4.735	5.933
Turkey a la King	5.038	5.356	5.625	4.463
Tuna Noodle Casserole	4.803	5.428	4.967	4.282
Lasagna	4.765	5.222	4.433	4.596
Hamburgers	6.020	6.198	5.790	6.031

TABLE V--Continued

Food	Sample Pop	Lewis & Clark Hedges		
		Hannon Weighted	Averages	
Hot Pork Sandwiches	5.500	5.575	5.598	5.397
Swiss Steak	5.132	5.309	4.823	5.185
Fruit Plate	5.685	6.365	5.354	5.326
Baked Beans	4.345	4.809	3.689	4.338
Roast Pork	5.731	5.585	5.783	5.800
Turkey Pie	5.058	5.269	5.499	4.631
Salmon Steak	4.685	4.891	4.848	4.444
Fried Bacon	5.591	5.731	5.905	5.315
Fried Link Sausage	5.383	5.922	4.899	5.267
Ham Salad	3.889	4.600	3.999	4.533
Tossed Salad	6.787	7.275	6.982	6.548
Lemon Pudding	5.308	5.302	6.142	4.879
Fruit Cocktail Pudding	4.690	4.832	4.147	4.893
Chocolate Chiffon Pie	5.736	5.856	5.413	5.839
Banana Cream Pie	6.433	6.074	7.181	6.248
Frozen Cherry Pie	6.110	5.768	6.530	5.889
Fruit Cobbler	4.873	5.349	5.181	5.487
Jelly Roll	5.069	5.081	5.117	5.033

TABLE V--Continued

Food	Sample Pop	Lewis & Clark Hedges		
		Hannon Weighted	Averages	
Cream Puff	5.371	5.669	5.499	5.101
Graham Cracker Torte	4.682	5.722	4.918	4.755
Blueberry Cobbler	5.294	5.261	5.499	5.205
Berry Crisp	5.010	4.762	5.422	4.983
Apples	6.550	6.357	6.630	6.641
Cookies	5.209	5.452	5.155	5.065
Angel Food Cake	5.080	5.256	5.566	4.690
Cupcake	5.197	5.685	5.115	4.899
Peach Topped Cake	4.856	4.682	5.000	4.906
Grapes	5.169	6.050	5.096	4.546
Chili-Mac	4.704	5.098	4.423	4.640
Chow Mein on Noodles	4.357	4.530	4.242	4.325
Grilled Ham Steak	5.943	5.499	6.451	5.946
Spanish Steak	4.557	4.322	4.787	4.550
Grilled Ham Sandwich	5.577	5.610	6.242	5.186
Hamburger Steak w/Mushroom Gravy	5.224	5.243	6.088	4.728
Barbeque Spare Ribs	5.243	4.860	5.811	5.162
Hamburger Pie	4.174	4.542	4.677	3.634

TABLE V--Continued

Food	Sample Pop	Lewis & Clark Hedges		
		Hannon Weighted	Clark Averages	Hedges
Hot Beef Sandwich	6.147	5.999	6.299	6.152
Barbeque Sliced Beef on Bun	5.056	4.457	5.093	5.417
Liver with Onions	4.133	5.205	3.967	3.563
Minute Steak	4.794	4.833	4.696	4.829
Salisbury Steak	4.784	5.090	4.780	4.606
Corned Beef on Rye	4.008	4.483	3.964	3.714
Salmon Loaf w/Fresh Pea Sauce	3.756	3.823	4.227	3.419
Pork Cutlets	5.522	5.610	5.848	5.278
Chicken a la King on Rice	5.253	5.805	5.211	4.905
Fillet of Sole	4.718	4.561	4.562	4.919
Hot Meat Loaf Sandwich	4.943	4.913	5.562	4.596
Grilled Ham and Chili	5.913	5.441	6.549	5.835
Fried Sausage Patty	4.842	4.250	5.150	5.057
Macaroni Salad	4.264	4.714	3.817	4.244
Jello Salad	5.918	6.777	5.151	5.814
Chocolate Pudding	6.215	5.611	5.786	6.853
Tapioca Pudding	5.965	5.848	5.302	6.425
Pumpkin Pie	5.668	5.058	5.754	5.982

TABLE V--Continued

Food	Sample Pop	Lewis & Clark Hedges		
		Hannon Weighted	Clark Averages	Hedges
Lemon Chiffon Pie	6.300	5.113	6.818	6.744
Apple Pie	7.147	6.702	7.272	7.361
Apple Crisp	6.187	6.305	5.634	6.106
Cherry Turnover	6.214	6.277	6.207	6.177
Donut a la Mode	5.486	5.644	5.451	5.407
Fruit Bars	5.018	5.031	4.571	5.282
Chinese Chews	4.627	5.477	3.998	4.440
Brownies	6.242	7.228	6.119	5.699
Bananas	6.866	7.114	6.817	6.733
Canned Fruit	6.324	6.714	6.187	6.159
Devil's Food Cake	6.243	6.090	6.301	6.297
White Cake	5.837	5.911	5.998	5.699
Iced Cake	5.943	6.038	6.030	5.844
Pineapple Upside Down Cake	5.503	5.687	5.749	5.244

Foods are scored from 9, like extremely, to 1, dislike extremely.

TABLE VI

Food Serving Desirability of the Dining Halls

Food	Sample Pop	Lewis & Clark Hedges		
		Hannon	Clark	Hedges
Weighted Averages				
Wieners and Buns	3.503	3.302	3.902	3.417
Country Fried Steak	4.099	3.593	4.741	4.043
Roast Beef	4.287	3.969	5.031	4.088
Fried Chicken	3.715	3.757	3.843	3.630
Cubed Steak	3.453	3.903	4.062	3.332
Fish Sticks	2.953	2.666	3.156	2.999
Beef Stew w/Biscuits	2.953	2.817	2.937	3.030
Chicken Noodle Casserole	2.843	2.924	2.937	2.756
Italian Spaghetti	3.259	3.090	3.468	3.241
Turkey & Dressing	3.832	3.514	4.281	3.774
Halibut w/Lemon	3.167	2.999	3.125	3.272
Chicken salad Sandwich	2.572	2.969	2.499	2.404
Barbeque Pork Chops	2.927	2.620	3.156	2.969
Turkey Noodle Casserole	2.538	2.787	2.374	2.491
Liver & Bacon	2.083	1.908	2.281	2.074
Meat Loaf	2.794	2.878	2.656	2.820
New England Boiled Dinner w/Brisket	2.085	2.094	1.899	2.166

TABLE VI--Continued

Food	Sample Pop	Lewis & Clark Hedges Weighted Averages		
		Hannon	Clark	Hedges
Pizza	2.976	2.999	3.249	2.832
Bacon, Lettuce, Tomato Sandwich	3.954	3.817	3.625	4.178
New York Steak	4.847	5.060	4.709	4.825
Fried Breakfast Ham	4.457	4.636	4.386	4.402
Cottage Cheese Salad	4.099	3.635	2.656	3.045
Egg Salad	2.829	2.781	2.644	2.939
Butterscotch Pudding	3.393	2.999	3.500	3.563
Vanilla Pudding	3.203	2.635	3.875	3.163
Coconut Cream Pie	3.846	3.484	4.531	3.696
Strawberry Chiffon Pie	3.763	3.606	3.875	3.787
Lemon Meringue Pie	4.084	3.605	4.741	4.014
Strawberry Shortcake	4.361	4.060	4.718	4.338
Apple Turnover	3.549	3.212	3.843	3.575
Cherry Crisp	4.067	4.211	4.312	3.880
Fruit Cobbler	3.345	3.121	2.906	3.676
Cottage Pudding w/Cherry Sauce	2.627	2.062	2.903	2.772
Raspberry Sundae	4.320	4.060	4.623	4.302

TABLE VI--Continued

Food	Sample Pop	Lewis & Clark Hedges		
		Weighted Averages		
Chocolate Chip Blonde Brownies	3.855	4.120	3.812	3.746
Oranges	4.816	5.218	4.781	4.641
Ice Cream	5.267	5.212	5.580	5.148
Chocolate Cake	4.228	4.151	4.812	3.984
German Chocolate Cake	4.234	4.120	4.624	4.104
Spice Cake	3.561	3.030	3.968	3.630
Pork Chops	3.577	3.451	4.413	3.279
Cold Cuts & Cheese	3.449	3.580	3.431	3.396
Sloppy Joes	3.812	3.354	3.723	4.058
Barbeque Roast Pork	3.054	2.675	3.366	3.089
Grilled Cheese Sandwich	3.833	3.675	3.632	3.999
Macaroni & Cheese	2.588	2.838	2.466	2.538
Baked Ham	3.991	3.257	4.499	2.778
Chili	3.687	3.354	4.066	3.617
Turkey a la King	3.301	2.870	3.799	3.279
Tuna Noodle Casserole	2.984	3.031	2.599	3.131
Lasagna	3.103	2.966	3.147	3.146
Hamburgers	4.160	3.386	4.142	4.536

TABLE VI--Continued

Food	Sample Pop	Hannon Weighted	Lewis & Clark Averages	Hedges
Hot Pork Sandwiches	3.530	3.322	3.758	3.528
Swiss Steak	3.395	2.967	3.533	3.529
Fruit Plate	4.437	4.967	4.103	4.338
Baked Beans	2.690	2.483	3.065	2.617
Roast Pork	3.570	3.032	3.932	3.656
Turkey Pie	2.809	2.625	2.766	2.911
Salmon Steak	3.038	3.096	3.516	2.805
Fried Bacon	4.377	3.934	4.399	4.440
Fried Link Sausage	3.851	3.257	3.999	3.999
Ham Salad	2.700	2.645	2.423	2.850
Tossed Salad	5.441	6.257	4.799	5.352
Lemon Pudding	3.273	3.193	3.344	3.279
Fruit Cocktail Pudding	3.173	3.064	2.965	3.313
Chocolate Chiffon Pie	3.689	3.193	3.666	3.926
Banana Cream Pie	4.177	3.322	4.366	4.484
Frozen Cherry Pie	3.774	3.290	3.632	4.058
Fruit Cobbler	3.749	3.290	3.599	4.029
Jelly Roll	3.232	2.612	3.399	3.440

TABLE VI--Continued

Food	Sample Pop	Hannon Weighted	Lewis & Clark Averages	Hedges
Cream Puff	3.343	2.600	3.733	3.499
Graham Cracker Torte	3.069	3.063	2.399	3.367
Blueberry Cobbler	3.241	2.902	3.332	3.308
Berry Crisp	3.340	3.096	2.866	3.661
Apples	4.593	4.838	4.566	4.492
Cookies	3.945	4.290	3.766	3.867
Angel Food Cake	3.601	3.399	3.499	3.735
Cupcake	3.562	3.120	3.532	3.775
Peach Topped Cake	3.343	2.754	3.566	3.514
Grapes	3.809	4.266	3.213	3.852
Chili-Mac	3.290	2.571	3.066	3.789
Chow Mein on Noodles	2.499	2.371	2.866	2.396
Grilled Ham Steak	3.936	3.256	4.366	4.112
Spanish Steak	2.773	2.342	3.432	2.697
Grilled Ham Sandwich	3.700	3.380	3.866	3.819
Hamburger Steak w/Mushroom Gravy	3.444	3.199	3.632	3.555
Barbeque Spare Ribs	3.118	3.352	2.733	3.177
Hamburger Pie	2.824	2.881	2.766	2.822

TABLE VI--Continued

Food	Sample Pop	Lewis & Clark Hedges		
		Hannon Weighted	Averages	
Hot Beef Sandwich	3.767	3.714	3.743	3.809
Barbeque Sliced Beef on Bun	2.873	2.440	3.066	3.015
Liver with Onions	2.171	2.456	2.266	1.999
Minute Steak	3.290	3.400	3.433	3.163
Salisbury Steak	3.229	3.028	3.332	3.294
Corned Beef on Rye	2.298	2.087	2.399	2.364
Salmon Loaf w/Fresh Pea Sauce	2.384	2.599	2.206	2.348
Pork Cutlets	3.708	3.914	3.466	3.709
Chicken a la King on Rice	2.857	3.028	2.796	2.745
Fillet of Sole	2.888	2.914	2.366	3.130
Hot Meat Loaf Sandwich	3.094	2.942	2.899	3.273
Grilled Ham and Chili	3.826	3.400	3.966	4.065
Fried Sausage Patty	2.857	2.171	3.329	3.015
Macaroni Salad	2.999	3.228	2.466	3.126
Jello Salad	4.836	5.428	4.335	4.745
Chocolate Pudding	3.976	3.657	3.633	4.317
Tapioca Pudding	3.787	3.735	3.099	4.142
Pumpkin Pie	3.724	3.400	4.066	3.838

TABLE VI--Continued

Food	Sample Pop	Lewis & Clark Hedges		
		Hannon Weighted	Averages	
Lemon Chiffon Pie	4.304	4.000	4.066	4.586
Apple Pie	4.874	4.514	4.099	4.967
Apple Crisp	4.163	3.914	4.266	4.248
Cherry Turnover	3.968	3.911	4.200	3.888
Donut a la Mode	3.818	3.942	3.166	4.060
Fruit Bars	3.390	3.600	3.299	3.317
Chinese Chews	2.716	3.342	2.166	2.628
Brownies	4.038	4.293	3.232	4.285
Bananas	4.523	5.399	4.299	4.142
Canned Fruit	4.562	5.056	4.533	4.301
Devil's Food Cake	3.927	3.656	4.092	3.999
White Cake	4.038	4.142	3.866	4.063
Iced Cake	3.937	3.742	4.032	3.999
Pineapple Upside Down Cake	3.463	3.485	2.928	3.693

Foods are scored from 7, once a day, to 1, rarely or never.

