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**PROGRAM EVALUATION: A CONSUMER  
EVALUATION OF ALTERNATIVE  
CONTRACTOR CONCEPTS IN GOVERNMENT  
FOOD SERVICE**

by

Laurence G. Branch

Survey Research Program

University of Massachusetts-Boston

Boston, Massachusetts 02116

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UNITED STATES ARMY  
NATICK LABORATORIES  
Natick, Massachusetts 01760



Food Sciences Laboratory

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20. ABSTRACT (continued)

The contractor food service concept with raw food provided by the contractor, as exemplified by Fort Myer, significantly reduced consumer problems in food service personnel, speed, hours, environment, and convenience of location, and also reduced the degree to which food variety, service, speed and hours affected non-attendance.

The contractor food service concept with raw food provided by the government showed more consumer problems with food quality, variety, and service, and greater contribution to non-attendance from these same factors. Military atmosphere and convenience of location were rated as lesser problems.

The data cannot tell us whether the concepts per se, their specific implementations, or some combination of factors were the causes of these ratings. Also, Army and Air Force customers probably have different experiences in food service on which to base comparisons.

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\* Presented in Appendix II



## SUMMARY

Two contractor concepts were studied using a paper and pencil consumer opinion survey and by comparing results with similar data from previously surveyed bases with non-contractor food service facilities. The food factors (quality, variety, and quantity, in that order) were generally rated by consumers as most serious problems, in keeping with many previous survey studies of military food service system.

The contractor food service concept with raw food provided by the contractor, as exemplified by Fort Myer, significantly reduced consumer problems in food service personnel, speed, hours, environment, and convenience of location, and also reduced the degree to which food variety, service, speed and hours affected non-attendance.

The contractor food service concept with raw food provided by the government showed more consumer problems with food quality, variety, and service, and greater contribution to non-attendance from these same factors. Military atmosphere and convenience of location were rated as lesser problems.

The data cannot tell us whether the concepts per se, their specific implementations, or some combination of factors were the causes of these ratings. Also, Army and Air Force customers probably have different experiences in food service on which to base comparisons.

## INTRODUCTION

The past several years have seen great change within military food service. The establishment of a Department of Defense Food Program at the U.S. Army Natick Laboratories has focused effort on many critical areas of concern in food R & D. Several large scale research projects have studied the total food service systems within the Army<sup>1</sup> and Air Force.<sup>2</sup> Other efforts have dealt with explorations of proposed alternatives to the current procedures for production of food (e.g., the Centralized Food Preparation Facility, Fort Lee<sup>3</sup>) and the monetary management of the food system (e.g., the item-priced cash system of Shaw Air Force Base<sup>4</sup>).

Another alternative in the development of new concepts in military food service systems has been that of a contractor food service operation. In this system, a private contractor assumes the responsibility for preparing, serving, and generally managing the food service on an installation, and in some instances, even providing the raw food products. Contractor food service has been attempted at several places, including Fort Myer, Virginia, and Bolling Air Force Base, District of Columbia. The food service at Fort Myer, a tri-service (Army, Air Force, Navy) food operation, has been under study for several years as part of the overall study of alternatives to current Armed Forces food service practices. The study to date has been carried out by the Military District of Washington and recently by the United States Army Troop Support Agency located at Fort Lee, Virginia. The United States Army Natick Laboratories has been asked to provide an evaluation for the third year of operation of the Fort Myer dining facility, and to evaluate the somewhat different

contractor operation at Bolling AFB.

One important part of any food service evaluation is the consumer reaction, a consideration generally included under the rubric of "troop acceptability." In recent years, the large systems studies of military food service systems have taken a strong consumer orientation, stating as a basic premise that military food service systems must be responsive to the needs of the consumer. This has resulted in the development of a substantial program aimed at evaluating consumer opinion of military food systems. This effort has been extended in this instance to an evaluation of two concepts of contractor food service operations. The first concept (contractor food service with contractor provided raw food products) is operational at Fort Myer; the second concept (contractor food service with government provided raw food products) is operational at Bolling AFB.

The purpose of this report was to examine the effects of two concepts of contractor food service operations on consumer opinion, not to evaluate the particular contractors involved at either installation. Evaluating concepts is difficult in this context though because the concepts do not exist independent of their implementation and because the bases of comparison are not wholly satisfactory from the scientific perspective. Accordingly, when the data demonstrate that a "new concept" was not rated as favorably as the traditional system, any interpretation must take into account these logical implications: (1) either the specific concept necessarily implies a less favorable food service operation from the consumers point of view, (2) or the particular implementation of the concept was the cause of the less positive consumer opinions and consequently no statements concerning the concept are justified, or (3) some

specific set of factors at the specific installation associated with the particular contractor working with a particular concept was the cause. And when the data demonstrate that the "new concept" was as favorably or better than the traditional system, then both the concept and its implementation must jointly be considered as the cause. The problem of finding appropriate bases of comparison with which to interpret the consumer opinions at Fort Myer and Bolling AFB was not as serious as it might have been though. In meeting the requirements of other projects at Natick Laboratories, 558 Army consumers from Fort Lee<sup>3</sup> and 1687 Air Force consumers from Travis,<sup>5</sup> Minot,<sup>6</sup> and Homestead<sup>7</sup> Air Force Bases provided their opinions about their own traditional military food service operations. The comparisons made in this report then are between the concept of a contractor food service operation with contractor supplied raw food as found at Fort Myer and a typical Army food service system as found at Fort Lee, Virginia; and between the concept of a contractor food service operation with government supplied raw food as found at Bolling AFB and the typical Air Force food service system as represented by a composite of opinions as expressed at Travis, Minot, and Homestead Air Force Bases.<sup>2</sup> Some analyses are also directed at the differences between the two contractor concepts.

## METHOD

A copy of the Consumer's Opinions Survey is provided in Appendix I. The questionnaire was developed by the Food Sciences Laboratory on the basis of previous consumer responses concerning military food service systems and from the results of informal interviews with Air Force consumers. The questionnaire took approximately 40 minutes to complete on the average; the format permitted automated scoring by a mark sense reader.

The survey was administered at Fort Myer on 6 and 7 May 1974 to groups ranging in size from 52 to 93 respondents. For the 4 sessions, the respondents were seated at tables in a large section of the consolidated dining facility, and when the sessions began the area was closed to personnel not participating in the survey. The survey was administered at Bolling Air Force Base on 8 May 1974 to groups ranging in size from 74 to 93 respondents. For the three sessions, the respondents were seated in the auditorium of the Base movie theater. At both installations, the respondents were told the background of the study by one of the two research supervisors present.

Because probability samples of installation enlisted populations present serious problems, the Services Officer at each installation was requested to provide a representative sample from each of the organizational elements, totaling approximately 300 enlisted personnel from each installation. Each organizational element then sent personnel to attend one of the scheduled sessions until a sufficient sample size had been obtained. In total, 321 questionnaires were completed at Fort Myer; 254 at Bolling AFB. Twenty were discarded because the forms were incorrectly filled out.



The analyses were performed on 307 respondents from Fort Myer and 248 respondents from Bolling Air Force Base. The demographic characteristics of these two samples as well as the two sources of comparison (Fort Lee and an Air Force composite) are contained in Appendix II. In general the four samples are quite similar in background characteristics.

A departure from the format of presenting the analyses will be noticed by the reader familiar with the previous reports of consumer opinions about military food service. The format of the previous reports gave rise to the proposition that those consumers who report not eating even one meal in the dining facilities during a typical week might have had a too limited base of experience upon which to make their consumer judgments, and consequently might have significantly different opinions than those who report eating in the dining facilities. Table 1 presents the reported number of meals per week typically obtained from the dining facilities by Fort Myer and Bolling AFB consumers. The comparisons presented in the following sections then also address the question of whether the "non-attenders" had significantly different opinions than the "attenders." The non-attenders were operationally defined as the 30% at Fort Myer and 38% at Bolling Air Force Base who reported obtaining zero meals from the dining halls during a typical week; attenders were operationally defined as the remaining 70% and 62%.

**TABLE 1**  
**Reported Number of Meals Per Week Obtained**  
**From Dining Facilities**

	<u>Fort Myer</u>	<u>Bolling AF Base</u>
0:	30%	38%
1 - 6:	21%	23%
7:	8%	7%
8 - 13:	16%	15%
14:	7%	8%
15 - 20:	13%	4%
21:	3%	3%
22 - 27:	2%	1%
28:	$\frac{1}{2}\%$ *	0%
Mean meals per week:	7	6

\*: Less than  $\frac{1}{2}\%$ .

## RESULTS

1. Overview. The data in Table 2 presents an overview of the consumers' opinions regarding three concepts in military food service operations (the traditional government food service operations and two types of contractors concepts). In responding to identical questionnaires the consumers provided feedback concerning fourteen different factors relating to their own food service operations which are presented in Table 2. Notice that in general the factors related to food per se (quality, variety, and quantity) were judged to be greater problems and more related to non-attendance than the non-food factors. This pattern has become quite expected in consumer evaluations of military food service operations.<sup>2,3,5,6,7,8</sup>

2. Comparison of a contractor food service/contractor procured raw products (Fort Myer) concept versus the traditional concept of government food service/government procured raw products (Fort Lee).

2.1 General Considerations. It is apparent from the first two columns of Table 2 that the consumers under the contractor concept of Fort Myer did not report considerably more problems than the consumers under the traditional concept at Fort Lee. In fact, in all but one instance the Fort Lee consumers reported slightly (i.e., quantity) to considerably (i.e., speed of service) more serious levels of problems than did the Fort Myer consumers. The one instance (quality) in which the Fort Myer consumers indicated a more serious problem was not statistically significant ( $t = 1.01$ ). The Fort Lee consumers indicated that each of the 14 food service factors contributed to their non-attendance to a greater degree than the consumers at Fort Myer reported.

**TABLE 2**

**The Consumers' Evaluations of Fourteen Food Service Factors and Their Contribution to Non-Attendance**

	EVALUATION <sup>1</sup>				CAUSE FOR NON-ATTENDANCE <sup>4</sup>			
	Fort Myer	Fort Lee <sup>2</sup>	Bolling AFB	AF Food Service <sup>3</sup>	Fort Myer	Fort Lee <sup>2</sup>	Bolling AFB	AF Food Service <sup>3</sup>
Quality <sup>5</sup>	3.72	3.59	4.09	3.86	1.94	1.95	2.25	2.08
Variety: Weekend <sup>5</sup>	3.46	3.49	3.91	3.69	1.61	1.76	1.75	1.81
Variety: Weekday <sup>5</sup>	3.44	3.48	3.90	3.64	1.61	1.80	1.98	1.82
Variety: Short Order <sup>5</sup>	3.47	3.57	3.76	3.54	1.62	1.79	1.81	1.67
Quantity <sup>5</sup>	3.50	3.51	3.73	3.54	1.68	1.79	1.87	1.74
Service Personnel	3.25	3.47	3.82	3.49	1.42	1.71	1.82	1.64
Monotony	3.43	3.55	3.75	3.62	1.54	1.63	1.69	1.67
Military Atmosphere	3.37	3.50	3.36	3.58	1.57	1.63	1.56	1.66
Speed of Service	3.20	3.90	3.68	3.57	1.41	1.91	1.67	1.67
Hours <sup>5</sup>	2.84	3.51	3.60	3.44	1.34	1.68	1.63	1.61
Eating Companions	3.03	3.08	2.96	3.11	1.39	1.48	1.35	1.40
General Environment	3.02	3.29	3.23	3.40	1.52	1.60	1.56	1.64
Expense	2.96	3.06	2.95	2.99	1.33	1.34	1.36	1.32
Convenience of Location	2.82	3.07	2.91	3.11	1.39	1.40	1.40	1.37

1. Scale: 1 = Significant attraction; 2 = Minor attraction; 3 = Neither problem nor attraction; 4 = Minor problem; 5 = Significant problem.
2. Consumers at Fort Lee, Virginia, responded to the same questionnaire, and hence their data are offered as an Army comparison of "government food-government food service."
3. Consumers at Travis AFB, Minot AFB and Homestead AFB responded to the same questionnaire, and hence their data are offered as an Air Force comparison of "government food-government food service."
4. Scale 1 = Not related to non-attendance; 2 = Minor reason for non-attendance; 3 = Major reason for non-attendance.
5. The "attenders" and "non-attenders" gave significantly different ratings on these factors using t-tests for independent samples.

From the statistical perspective, the concept of contractor food service/contractor raw products as exemplified at Fort Myer significantly reduced the degree to which consumers reported problems in five areas (the service personnel, speed of service, hours of operation, general environment, and the convenience of location) and significantly decreased the degree to which consumers reported that five factors adversely influenced their attendance (the weekday variety, the short order variety, the service personnel, the speed of service, and the hours of operation), all of which is presented in Table 3.

In general, then, the data indicated that the concept of contractor food service/contractor supplied raw products does not necessarily imply an inferior food service operation, and in fact can significantly reduce the seriousness of some problems reported by the consumers.

2.2. Specific Considerations. Several subsequent analyses were performed in order to understand as much as possible from the data concerning each of the fourteen food service factors, including an examination of the differences between attenders and non-attenders. These results for several of the food service factors are discussed on the following pages, but several other factors (monotony, military atmosphere, eating companions, general environment, expense, and convenience of location) are omitted because their relationship to a contractor system is not clear. In any event, the data upon which these discussions are based are presented in table form in Appendix II.



TABLE 3

A Listing of Statistically Significant  
Differences Based on Data of Table 2:  
Fort Myer versus Fort Lee

	EVALUATION		CAUSE FOR NON-ATTENDANCE	
	<u>Direction of Difference</u>	<u>Level of Significance</u>	<u>Direction of Difference</u>	<u>Level of Significance</u>
Quality				
Variety: Weekend				
Variety: Weekday			M < L	.05
Variety: Short Order			M < L	.05
Quantity				
Service Personnel	M < L	.05	M < L	.001
Monotony				
Military Atmosphere				
Speed of Service	M < L	.001	M < L	.001
Hours	M < L	.001	M < L	.001
Eating Companions				
General Environment	M < L	.01		
Expense				
Convenience of Location	M < L	.01		

NOTE: M = Fort Myer L = Fort Lee

"M < C" means that the Fort Myer consumers reported less problem/cause for non-attendance than the Fort Lee consumers.

Tests of significance were t-tests for independent samples.

2.2.1. Quality. (Data presented in Table 4 of Appendix II.) The Fort Myer concept did not result in statistically significantly lower consumer ratings of overall food quality than the traditional system. Interestingly though, the Fort Myer attenders indicated that their degree of non-attendance was influenced significantly more by the quality of the food in the dining facilities than the non-attenders. Apparently some attenders sometimes decide not to get a meal from the dining facility because they are disappointed with the quality, but the real non-attenders just do not attend and the quality of the food does not enter into their decision.

Concerning the perceived quality of the raw food products, the Fort Myer attenders reported gristle or tendon in the raw foods significantly more often than the Fort Lee respondents. Furthermore, the perceived quality of the food preparation was also reported by the Fort Myer attenders as significantly more greasy and tasteless or bland than reported at Fort Lee.

2.2.2. Variety: Weekend, Weekday, Short Order, and Over a Period of a Month. (Data presented in Tables 5 and 6 of Appendix II.) The variety at Fort Myer causes significantly more non-attendance from among the potential customers (the attenders) with short order variety specifically being rated as a more serious problem. However, the opinions of the consumers in traditional government food service system (in the 21 possible comparisons between the Fort Myer attenders and the Fort Lee respondents, only one yielded a significant difference - weekday desserts were rated as in need of significantly more choices at Fort Myer with a  $t = 2.01$ ,  $p > .05$ ). To summarize, variety is a problem in the Fort

Myer concept, but its degree is no greater than exists in the traditional government food service operation.

2.2.3. Quantity. (Data presented in Table 7 of Appendix II.) In general terms, the problems of food quantity were reported to have nearly the same degree of severity in the contractor operation of Fort Myer as in the traditional food service system of Fort Lee. In specific terms, the consumers reported "sometimes" leaving the facilities without enough to eat. Of those items served by others, the initial portion size of meats in both systems were reported as too small, with second helpings usually not available. In comparison to the Fort Lee respondents, the Fort Myer attenders reported significantly smaller portions of vegetables (though the absolute amount was nevertheless reported as just slightly below the "about right" category) and less availability of them for second helpings.

2.2.4. Service Personnel. (Data presented in Table 8 of Appendix II.) The implementation of the Fort Myer concept significantly decreased some of the problems associated with the service personnel typically reported in traditional military food service operations. Though the ability of the cooks and the attitudes of the workers were reported by the Fort Myer attenders to be approximately the same as reported at Fort Lee, the frequency of finding two of the irritants in the dining facilities (inappropriate or missing silverware and not enough condiments) were significantly reduced in the contractor concept and the floors were reported to be significantly cleaner. The frequency of having leftovers, however, was reported as significantly greater by the Fort Myer attenders than the Fort Lee respondents.

2.2.5. Speed of Service. (Data presented in Table 9 of Appendix II.) The consumers in the contractor operation reported significantly reduced delays in service. The perceived delays at the head-count stations in particular were reportedly cut in half - down from a report of nearly 9 minutes in traditional system by the Fort Lee consumers to nearly 4 minutes by the Fort Myer attenders.

2.2.6. Hours of Operation. (Data presented in Table 10 of Appendix II.) The hours of operation at the Fort Myer implementation significantly reduced the problems reported in this area, particularly in terms of opening early enough.

3. Comparison of a contractor food service/government supplied raw products concept (Bolling AFB) versus the traditional concept of government food service/government procured raw products (AF Composite).

3.1. General Considerations. It is apparent from the last two columns of Table 2 (presented again on the next page) that in contrast to the Fort Myer concept, the consumers under the Bolling AFB concept reported considerably more problems in the food service system than the consumers of traditional Air Force food service. For 5 of the 14 factors the Bolling AFB consumers reported a significantly more serious degree of problem (the food quality; weekend, weekday, and short order variety; and the service personnel - as indicated in Table 11). Three of these factors also were reported by Bolling AFB consumers to be significantly greater causes of their non-attendance than reported by the Composite AF consumer (the food quality; weekday variety; and the service personnel). The concept at Bolling AFB was not rated entirely negative though; two of the 14 factors were rated as problems of significantly

TABLE 2

The Consumers' Evaluations of Fourteen Food Service Factors and Their Contribution to Non-Attendance

	EVALUATION <sup>1</sup>				CAUSE FOR NON-ATTENDANCE <sup>4</sup>			
	Fort Myer	Fort Lee <sup>2</sup>	Bolling AFB	AF Food Service <sup>3</sup>	Fort Myer	Fort Lee <sup>2</sup>	Bolling AFB	AF Food Service <sup>3</sup>
Quality <sup>5</sup>	3.72	3.59	4.09	3.86	1.94	1.95	2.25	2.08
Variety: Weekend <sup>5</sup>	3.46	3.49	3.91	3.69	1.61	1.76	1.75	1.81
Variety: Weekday <sup>5</sup>	3.44	3.48	3.90	3.64	1.61	1.80	1.98	1.82
Variety: Short Order <sup>5</sup>	3.47	3.57	3.76	3.54	1.62	1.79	1.81	1.67
Quantity <sup>5</sup>	3.50	3.51	3.73	3.54	1.68	1.79	1.87	1.74
Service Personnel	3.25	3.47	3.82	3.49	1.42	1.71	1.82	1.64
Monotony	3.43	3.55	3.75	3.62	1.54	1.63	1.69	1.67
Military Atmosphere	3.37	3.50	3.36	3.58	1.57	1.63	1.56	1.66
Speed of Service	3.20	3.90	3.68	3.57	1.41	1.91	1.67	1.67
Hours <sup>5</sup>	2.84	3.51	3.60	3.44	1.34	1.68	1.63	1.61
Eating Companions	3.03	3.08	2.96	3.11	1.39	1.48	1.35	1.40
General Environment	3.02	3.29	3.23	3.40	1.52	1.60	1.56	1.64
Expense	2.96	3.06	2.95	2.99	1.33	1.34	1.36	1.32
Convenience of Location	2.82	3.07	2.91	3.11	1.39	1.40	1.40	1.37

1. Scale: 1 = Significant attraction; 2 = Minor attraction; 3 = Neither problem nor attraction; 4 = Minor problem; 5 = Significant problem.
2. Consumers at Fort Lee, Virginia, responded to the same questionnaire, and hence their data are offered as an Army comparison of "government food-government food service."
3. Consumers at Travis AFB, Minot AFB and Homestead AFB responded to the same questionnaire, and hence their data are offered as an Air Force comparison of "government food-government food service."
4. Scale: 1 = Not related to non-attendance; 2 = Minor reason for non-attendance; 3 = Major reason for non-attendance.
5. The "attenders" and "non-attenders" gave significantly different ratings on these factors using t-tests for independent samples.



TABLE 11

A Listing of Statistically Significant Differences Based on Data of Table 2  
Bolling AFB versus Composite AF

	EVALUATION		CAUSE FOR NON-ATTENDANCE	
	<u>Direction of Difference</u>	<u>Level of Significance</u>	<u>Direction of Difference</u>	<u>Level of Significance</u>
Quality	B > C	.05	B > C	.05
Variety: Weekend	B > C	.05		
Variety: Weekday	B > C	.01	B > C	.05
Variety: Short Order	B > C	.05		
Quantity				
Service Personnel	B > C	.001	B > C	.05
Monotony				
Military Atmosphere	B < C	.05		
Speed of Service				
Hours				
Eating Companions				
General Environment				
Expense				
Convenience of Location	B < C	.05		

NOTE: B = Bolling Air Force Base

C = Composite Air Force

"B > C" means that the Bolling AFB consumers reported more problems/cause for non-attendance than the Composite consumers.

"B < C" means that the Bolling AFB consumers reported less problems/cause for non-attendance than the Composite consumers.

Tests of significance were t-tests for independent samples.

lesser proportions by the Bolling AFB consumers than by the Air Force composite consumers, (military atmosphere and convenience of location).

In general the data indicated that the implementation at Bolling AFB of the concept of contractor food service/government supplied raw products was not rated as well by its consumers as was the traditional AF food service system when rated by its consumers. The data cannot tell us though whether the concept per se, its specific implementation, or some combination of unique factors was the cause of this rating.

3.2. Specific Considerations. Though it was impossible to specify the exact cause of the lower consumer ratings reported at Bolling AFB on the basis of the data, it was nevertheless possible to amplify what specific elements within the food service operation were contributing to the lowered ratings.

3.2.1. Quality. (Data presented in Table 12 of Appendix II.) All the different groups of consumers had significantly different opinions regarding the general factor of "quality" in their food service systems: the Bolling AFB attenders reported significantly more problems with the food quality than the non-attenders and indicated these problems more significantly caused their non-utilization; the Bolling AFB consumers reported more problems than the composite AF consumer; and the Bolling AFB consumers reported that the level of quality in their food service system was a more significant cause of their non-attendance than the composite AF consumer reported.

The Bolling AFB attenders reported more frequent problems in the perceived quality of the food preparation in every instance (statistically significantly in five instances: finding tough, cold, dried out, overcooked and overspiced foods more frequently than the AF composite consumer reported).

3.2.2. Variety: Weekend, Weekday, Short Order, and Over a Period of a Month. (Data presented in Tables 13 and 14 of Appendix II.) The pattern was similar for all four types of variety - the attenders at Bolling AFB reported significantly more problems with variety and indicated that variety was a more significant reason for their non-utilization than did the Bolling AFB non-attenders; and the Bolling AFB consumers reported more problems with variety and indicated that variety was a more significant reason for their non-utilization than did the composite AF consumers. However, all but two of the 21 individual statistical tests demonstrated that the Bolling AFB attenders did not have significantly different opinions than the composite AF consumer about the variety of specific food types at specific times.

3.2.3. Quantity. (Data presented in Table 15 of Appendix II.) The problems associated with food quantity were not significantly different at Bolling AFB than for the composite AF food service system, though within the Bolling AFB population attenders reported significantly more problems with quantity and linked it more significantly with non-utilization than did the Bolling AFB non-attenders. In summary, the problem of food quantity in the Air Force food service system, especially with meat items, was not better or worse at Bolling AFB with its concept of contractor food service/government supplied raw products. (It should be noted however, that the Bolling AFB attenders did indicate significantly less availability of second helpings of meat and short order items than did the composite AF consumers.)

3.2.4. Service Personnel. (Data presented in Table 16 of Appendix II.) The Bolling AFB consumers reported significantly more problems with the service personnel and indicated that this factor was a more significant factor in their non-utilization than the composite AF consumer reported. Furthermore, the reasons for the lower consumer opinions at Bolling AFB were possibly the results of consumers reporting that they found inappropriate or missing silverware, not enough condiments, leftovers served day after day, and serving line runouts all occurring significantly more often at Bolling AFB.

3.2.5. Speed of Service. (Data presented in Table 17 of Appendix II.) No significant differences between the Bolling AFB consumers and the composite AFB consumers regarding the speed of service were reported, nor between the attenders and non-attenders of Bolling AFB.

3.2.6. Hours of Operation. (Data presented in Table 18 of Appendix II.) Though the reported opinions of the different groups of consumers regarding the general factor of hours of operations were not significantly different (albeit the Bolling AFB attenders did report their non-utilization to have been significantly more influenced by the hours than the contractor concept implementation at Bolling AFB actually reduced some of the dissatisfaction with the opening hours reported in the composite AF food service system.

4. Comparison of the two types of contractor food service operations. Specific comparisons between the two types of contractor systems are in many ways futile because any reported differences might as likely be attributable to variations in the expectancies of Air Force versus Army consumers as to variations in the contractor concepts. Never-

theless analyses of the consumers' opinions were made at the general level of the fourteen food service factors for purposes of suggestion.

On the basis of the data in Table 2 (again presented on the following page for the convenience of the reader) and the analyses reported in Table 19, it is apparent that the consumers at Fort Myer reported significantly lower levels of problems in 8 of the 14 food service areas than the Bolling AFB consumers and that 5 of those 8 factors were significantly less related to their non-attendance. The eight factors which were reported as problems of significantly lesser magnitude at Fort Myer were: food quality, the three types of variety (weekend, weekday, and short order), the service personnel, the monotony associated with the same facility, the speed of service, and the hours of operation. The five factors which were reported as lesser contributing causes of non-attendance at Fort Myer were the food quality, weekday variety, the service personnel, the speed of service, and the hours of operation.

It bears emphasizing that Fort Myer, with its lower level of reported food service problems, was the site of the contractor concept in which the contractor himself had the responsibility of supplying the raw foods. The implication is not necessarily that contractors, when left to their own devices, can come up with better raw food products than the Department of Defense can provide. The more probable explanations of these data must take into account the data presented in section 2 and 3 of this report - the Army consumers perceived the implementation at Fort Myer as a greater improvement over their typical Army food service than the Air Force consumers perceived the implementation at Bolling AFB to be over their typical Air Force food service.



TABLE 2

The Consumers' Evaluations of Fourteen Food Service Factors and Their Contribution to Non-Attendance

	EVALUATION <sup>1</sup>				CAUSE FOR NON-ATTENDANCE <sup>4</sup>			
	Fort Myer	Fort Lee <sup>2</sup>	Bolling AFB	AF Food Service <sup>3</sup>	Fort Myer	Fort Lee <sup>2</sup>	Bolling AFB	AF Food Service <sup>3</sup>
Quality <sup>5</sup>	3.72	3.59	4.09	3.86	1.94	1.95	2.25	2.08
Variety: Weekend <sup>5</sup>	3.46	3.49	3.91	3.69	1.61	1.76	1.75	1.81
Variety: Weekday <sup>5</sup>	3.44	3.48	3.90	3.64	1.61	1.80	1.98	1.82
Variety: Short Order <sup>5</sup>	3.47	3.57	3.76	3.54	1.62	1.79	1.81	1.67
Quantity <sup>5</sup>	3.50	3.51	3.73	3.54	1.68	1.79	1.87	1.74
Service Personnel	3.25	3.47	3.82	3.49	1.42	1.71	1.82	1.64
Monotony	3.43	3.55	3.75	3.62	1.54	1.63	1.69	1.67
Military Atmosphere	3.37	3.50	3.36	3.58	1.57	1.63	1.56	1.66
Speed of Service	3.20	3.90	3.68	3.57	1.41	1.91	1.67	1.67
Hours <sup>5</sup>	2.84	3.51	3.60	3.44	1.34	1.68	1.63	1.61
Eating Companions	3.03	3.08	2.96	3.11	1.39	1.48	1.35	1.40
General Environment	3.02	3.29	3.23	3.40	1.52	1.60	1.56	1.64
Expense	2.96	3.06	2.95	2.99	1.33	1.34	1.36	1.32
Convenience of Location	2.82	3.07	2.91	3.11	1.39	1.40	1.40	1.37

1. Scale: 1 = Significant attraction; 2 = Minor attraction; 3 = Neither problem nor attraction; 4 = Minor problem; 5 = Significant problem.
2. Consumers at Fort Lee, Virginia, responded to the same questionnaire, and hence their data are offered as an Army comparison of "government food-government food service."
3. Consumers at Travis AFB, Minot AFB and Homestead AFB responded to the same questionnaire, and hence their data are offered as an Air Force comparison of "government food-government food service."
4. Scale: 1 = Not related to non-attendance; 2 = Minor reason for non-attendance; 3 = Major reason for non-attendance.
5. The "attenders" and "non-attenders" gave significantly different ratings on these factors using t-tests for independent samples.

TABLE 19

A Listing of Statistically Significant Differences Based on  
Data of Table 2: Fort Myer versus Bolling AFB

	EVALUATION		CAUSE FOR NON-ATTENDANCE	
	<u>Direction of Difference</u>	<u>Level of Significance</u>	<u>Direction of Difference</u>	<u>Level of Significance</u>
Quality	M < B	.01	M < B	.001
Variety: Weekend	M < B	.001		
Variety: Weekday	M < B	.001	M < B	.001
Variety: Short Order	M < B	.05		
Quantity				
Service Personnel	M < B	.001	M < B	.001
Monotony	M < B	.05		
Military Atmosphere				
Speed of Service	M < B	.001	M < B	.01
Hours	M < B	.001	M < B	.001
Eating Companions				
General Environment				
Expense				
Convenience of Location				

NOTE: M = Fort Myer

B = Bolling Air Force Base

"M < B" means that the Fort Myer consumers reported less problems/cause for non-attendance than the Bolling AFB consumers.

Tests of significance were t-tests for independent samples.

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# CONSUMER'S OPINIONS OF FOOD SERVICE SYSTEMS

## APPENDIX I

U. S. ARMY NATICK LABORATORIES

NOVEMBER 1972

Booklet Serial Number

In the grid to your right, please fill in  
the ovals corresponding with the Booklet  
Serial Number that is stamped directly  
above the numeric grid.

○	○	○	○
○	○	○	○
○	○	○	○
○	○	○	○
○	○	○	○
○	○	○	○
○	○	○	○
○	○	○	○
○	○	○	○
○	○	○	○

Instructions for all questions: For each question completely darken the circle around the number of your answer. Certain questions have specific instructions associated with them. Please read these instructions carefully.

INSTALLATION CODE (To be supplied by testers.)

Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ Ⓖ Ⓗ Ⓘ Ⓚ

DINING FACILITY CODE (To be supplied by testers.)

Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ Ⓖ Ⓗ Ⓘ Ⓚ

Darken the appropriate circles which indicate your AGE at last birthday.

1st digit Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ Ⓖ Ⓗ Ⓘ Ⓚ

2nd digit Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ Ⓖ Ⓗ Ⓘ Ⓚ

Darken the circle which indicates your RACE.

- Caucasian
- Negro
- Oriental
- Other (specify \_\_\_\_\_)

Darken the circle which indicates your SEX.

- Male
- Female

Darken the circle which indicates your HIGHEST LEVEL OF EDUCATION.

- Some Grade School
- Finished Grade School
- Some High School
- High School Graduate (includes GED)
- Skilled Job Training
- Some College
- College Graduate
- Beyond College

How long have you been IN MILITARY SERVICE? Darken one circle in each line.

years 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20  
Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ Ⓖ Ⓗ Ⓘ Ⓚ Ⓛ Ⓜ Ⓝ Ⓟ Ⓡ Ⓢ Ⓣ Ⓤ Ⓥ Ⓦ Ⓧ Ⓨ Ⓩ

and months 0 1 2 3 4 5 6 7 8 9 10 11  
Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ Ⓖ Ⓗ Ⓘ Ⓚ

Do you plan to REENLIST when your present enlistment ends? Darken the appropriate circle.

- Definitely yes
- Probably yes
- Undecided
- Probably no
- Definitely no

How much do you LIKE MILITARY SERVICE? Darken the appropriate circle.

Dislike very much	Dislike moderately	Dislike a little	Neutral	Like a little	Like moderately	Like very much
Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ

Where were you raised? Darken the appropriate circle.

- In the country
- In a town with less than 2,500 people
- In a town or small city with more than 2,500, but less than 25,000 people
- In a city with more than 25,000, but less than 100,000 people
- In a large city with more than 100,000, but less than one million people
- In a very large city with over one million people
- In a suburb of a large or very large city

In what STATE were you raised? Darken the appropriate circle.

- |  |  |
|--|--|
| <input type="radio"/> 01 Alabama       | <input type="radio"/> 28 Nevada  |
| <input type="radio"/> 02 Alaska        | <input type="radio"/> 29 New Hampshire   |
| <input type="radio"/> 03 Arizona       | <input type="radio"/> 30 New Jersey  |
| <input type="radio"/> 04 Arkansas      | <input type="radio"/> 31 New Mexico  |
| <input type="radio"/> 05 California    | <input type="radio"/> 32 New York  |
| <input type="radio"/> 06 Colorado      | <input type="radio"/> 33 North Carolina  |
| <input type="radio"/> 07 Connecticut   | <input type="radio"/> 34 North Dakota  |
| <input type="radio"/> 08 Delaware      | <input type="radio"/> 35 Ohio  |
| <input type="radio"/> 09 Florida       | <input type="radio"/> 36 Oklahoma  |
| <input type="radio"/> 10 Georgia       | <input type="radio"/> 37 Oregon  |
| <input type="radio"/> 11 Hawaii        | <input type="radio"/> 38 Pennsylvania  |
| <input type="radio"/> 12 Idaho         | <input type="radio"/> 39 Rhode Island  |
| <input type="radio"/> 13 Illinois      | <input type="radio"/> 40 South Carolina  |
| <input type="radio"/> 14 Indiana       | <input type="radio"/> 41 South Dakota  |
| <input type="radio"/> 15 Iowa          | <input type="radio"/> 42 Tennessee   |
| <input type="radio"/> 16 Kansas        | <input type="radio"/> 43 Texas   |
| <input type="radio"/> 17 Kentucky      | <input type="radio"/> 44 Utah  |
| <input type="radio"/> 18 Louisiana     | <input type="radio"/> 45 Vermont   |
| <input type="radio"/> 19 Maine         | <input type="radio"/> 46 Virginia  |
| <input type="radio"/> 20 Maryland      | <input type="radio"/> 47 Washington  |
| <input type="radio"/> 21 Massachusetts | <input type="radio"/> 48 West Virginia   |
| <input type="radio"/> 22 Michigan      | <input type="radio"/> 49 Wisconsin   |
| <input type="radio"/> 23 Minnesota     | <input type="radio"/> 50 Wyoming   |
| <input type="radio"/> 24 Mississippi   | <input type="radio"/> 51 Other U.S. territories or possessions (For example, Puerto Rico or Virgin Islands.) |
| <input type="radio"/> 25 Missouri      | <input type="radio"/> 52 Outside the U.S. or U.S. Territories or possessions.                                |
| <input type="radio"/> 26 Montana       |  |
| <input type="radio"/> 27 Nebraska      |  |

Darken the circle which indicates your PRESENT GRADE.

- E-1
- E-2
- E-3
- E-4
- E-5
- E-6
- E-7
- E-8
- E-9

Do you receive a SEPARATE RATIONS ALLOWANCE (money instead of free meals)?

Darken the appropriate circle.

- Yes
- No

What ONE TYPE OF COOKING were you raised on? Darken the appropriate circle.

- |   |   |
|---|---|
| <input type="radio"/> 01 Chinese                | <input type="radio"/> 09 Jewish                       |
| <input type="radio"/> 02 English                | <input type="radio"/> 10 Mexican                      |
| <input type="radio"/> 03 French                 | <input type="radio"/> 11 New England                  |
| <input type="radio"/> 04 General American Style | <input type="radio"/> 12 Polish (& Eastern Europe)    |
| <input type="radio"/> 05 German                 | <input type="radio"/> 13 Soul                         |
| <input type="radio"/> 06 Greek                  | <input type="radio"/> 14 Southern                     |
| <input type="radio"/> 07 Italian                | <input type="radio"/> 15 Spanish (not Mexican)        |
| <input type="radio"/> 08 Japanese               | <input type="radio"/> 16 Other (please specify _____) |

What TYPE OF COOKING OR SPECIALTY FOODS do you like best? Please darken the circles of your TOP THREE CHOICES.

- |   |   |
|---|---|
| <input type="radio"/> 01 Chinese                | <input type="radio"/> 09 Jewish                       |
| <input type="radio"/> 02 English                | <input type="radio"/> 10 Mexican                      |
| <input type="radio"/> 03 French                 | <input type="radio"/> 11 New England                  |
| <input type="radio"/> 04 General American Style | <input type="radio"/> 12 Polish (& Eastern Europe)    |
| <input type="radio"/> 05 German                 | <input type="radio"/> 13 Soul                         |
| <input type="radio"/> 06 Greek                  | <input type="radio"/> 14 Southern                     |
| <input type="radio"/> 07 Italian                | <input type="radio"/> 15 Spanish (not Mexican)        |
| <input type="radio"/> 08 Japanese               | <input type="radio"/> 16 Seafood                      |
|   | <input type="radio"/> 17 Other (please specify _____) |

WHICH MEALS DO YOU EAT DURING A TYPICAL WEEK, REGARDLESS OF WHERE YOU EAT THEM? If you have "brunch" on Saturdays or Sundays, consider it to be a mid-day meal. Be sure to mark each block.

	Mon.		Tues.		Wed.		Thurs.		Fri.		Sat.		Sun.	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Breakfast	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mid-day Meal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Evening Meal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
After Evening	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

WHICH MEALS DO YOU EAT DURING A TYPICAL WEEK AT YOUR DINING FACILITY? If you have "brunch" on Saturdays or Sundays, consider it to be a mid-day meal. Be sure to mark each block.

	Mon.		Tues.		Wed.		Thurs.		Fri.		Sat.		Sun.	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Breakfast	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mid-day Meal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Evening Meal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
After Evening	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



**BEFORE YOU ENTERED THE MILITARY, WHICH MEALS DID YOU USUALLY EAT?**

If you ate "brunch" on Saturdays or Sundays, consider it to be a mid-day meal. Be sure to mark each block.

	Mon.		Tues.		Wed.		Thurs.		Fri.		Sat.		Sun.	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Breakfast	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mid-day Meal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Evening Meal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
After Evening	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**WHERE DO YOU EAT** when you do not eat in the military dining facility? Indicate how often by filling in one circle in each line.

	Never	Less than once a week	1-3 times a week	4-7 times a week	8-14 times a week	15 or more times a week
a. Private residence (girlfriend's house, friend's or relative's house, your home, your barracks, bringing your food, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. An installation snack facility (the bowling alley, the exchange, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. An installation NCO club, EM or Airmen Club, or service club	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Diner, snack bar, pizza parlor, or drive-in off the installation (or having it delivered)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Quality restaurant off the installation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Bar or tavern (with alcoholic beverages) off the installation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. From vending machines	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. From mobile snack or lunch trucks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Other (write it below and indicate how often)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

For each of the same 14 general areas, indicate whether it is a major reason for your degree of NON-ATTENDANCE at the dining facility, a minor reason for your degree of non-attendance, or not related to your degree of non-attendance.

Area or topic	Major reason for non-attendance	Minor reason for non-attendance	Not related to non-attendance
a. Convenience of location	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. General dining facility environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Degree of military atmosphere present	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Desirable eating companions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Expense	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Hours of operation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Monotony of same facility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Quality of food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Quantity of food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Service by dining facility personnel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Variety of the regular meal food (weekday only)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Variety of the regular meal food (weekend only)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Variety of the short order food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. Speed of service or lines	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If you have a REGULARLY SCHEDULED ACTIVITY which keeps you from attending the dining facility at certain times, indicate how many meals per week you do not attend because of this activity. (Indicate "zero meals not attended" if you have no such activity.)

Meals not attended:    0    1    2-4    5    6-7    8-10    More than 10

Listed below are 14 GENERAL AREAS OF CONCERN. For each topic or area, indicate whether it is a significant problem, a minor problem, neither a problem nor an attraction, a minor attraction, or a significant attraction for your dining facility in your opinion.

	Area or topic	Signifi- cant Problem	Minor Problem	Neither Problem Nor Attrac- tion	Minor Attrac- tion	Signifi- cant Attrac- tion
a.	Convenience of location	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b.	General dining facility environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c.	Degree of military atmosphere present	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d.	Desirable eating companions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e.	Expense	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f.	Hours of operation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g.	Monotony of same facility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h.	Quality of food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i.	Quantity of food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j.	Service by dining facility personnel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k.	Variety of the regular meal food (weekday only)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l.	Variety of the regular meal food (weekend only)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m.	Variety of the short order food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n.	Speed of service or lines	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

For each pair of items below, please indicate your opinion of THE GENERAL CONDITION OF YOUR DINING FACILITY by darkening the circle which comes closest to describing your feelings.

		Extremely	Moderately	Neutral	Moderately	Extremely	
a.	Clean kitchen area	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Dirty kitchen area
b.	Insect infested	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Insect free
c.	Rodent infested	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Rodent free
d.	Clean serving counters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Dirty serving counters
e.	Dirty dispensing devices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Clean dispensing devices
f.	Dirty silverware	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Clean silverware
g.	Clean trays	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Dirty trays
h.	Clean dishes and glasses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Dirty dishes and glasses
i.	Dirty floors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Clean floors
j.	Dirty tables and chairs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Clean tables and chairs
k.	Brightly lighted	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Dimly lighted
l.	Sunny	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Lacking in sunlight
m.	Quiet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Noisy
n.	Crowded	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Uncrowded
o.	Roomy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Cramped
p.	Poorly designed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Well designed
q.	Pleasant view	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Unpleasant view
r.	Low number of safety hazards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	High number of safety hazards
s.	Unpleasant exterior appearance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Pleasant exterior appearance
t.	Unpleasant interior appearance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Pleasant interior appearance

Concerning the degree of **MILITARY ATMOSPHERE** which you feel exists in your dining facility at the present time, indicate whether you feel there should be **MORE** or **LESS** military atmosphere in the future.

- |  |   |  |   |  |
|--|---|--|---|--|
| A Lot<br>More<br><input type="radio"/> | A Little<br>More<br><input type="radio"/> | About the<br>Same<br><input type="radio"/> | A Little<br>Less<br><input type="radio"/> | A Lot<br>Less<br><input type="radio"/> |
|--|---|--|---|--|

Indicate how you usually travel between each of the following locations:

- |                                   | Walk                  | Drive                 | Ride                  | Bus                   | Other (specify)             |
|-----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------------|
| a. Living area to your job site   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> _____ |
| b. Job site to dining facility    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> _____ |
| c. Living area to dining facility | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> _____ |

Indicate approximately how many minutes it takes you to travel by the means you indicated in the previous questions from your:

- |                                   | 1-5<br>min            | 6-10<br>min           | 11-15<br>min          | 16-20<br>min          | 21-25<br>min          | 26-30<br>min          | Over<br>30 min        |
|-----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| a. Living area to your job site   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| b. Job site to dining facility    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| c. Living area to dining facility | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Indicate approximately how many MINUTES it would take to WALK from your:

- |                                   | 1-5<br>min            | 6-10<br>min           | 11-15<br>min          | 16-20<br>min          | 21-25<br>min          | 26-30<br>min          | Over<br>30 min        |
|-----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| a. Living area to your job site   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| b. Job site to dining facility    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| c. Living area to dining facility | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Is your dining facility ever:

- |                                  | Never                 | Sometimes             | Often                 | Always                |
|----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| a. Too cold                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| b. Too warm                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| c. Stuffy                        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| d. Smoky                         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| e. Full of steam                 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| f. Full of unpleasant food odors | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

How often do you find:

- |  | Never                 | Sometimes             | Often                 | Always                |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| a. Inappropriate or missing silverware   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| b. Not enough condiments (ketchup, etc.) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| c. Left-overs being served day after day | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| d. Serving line has run out of items     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Indicate how often each of the following statements about SOCIAL aspects of your dining facility applies to you.

	Never	Sometimes	Often	Always
I line up with my friends for the meal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I always sit with my friends at a dining table	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I always try to claim a certain table as my area	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The feeling of privacy is quite good in this dining hall	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I talk to people at other tables during the meal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Room conditions are acceptable for relaxed conversation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is a friendly social atmosphere in this dining hall	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do you have MUSIC in your dining facility now?		Yes	No	
		<input type="radio"/>	<input type="radio"/>	

What is your reaction to having MUSIC in the dining facilities:

Very Acceptable	Mildly Acceptable	Neutral	Mildly Unacceptable	Very Unacceptable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Indicate the one type of music you would most prefer in the dining facilities:

- Any type is fine
- Hard rock
- Soul
- Popular
- Rock and roll
- Jazz
- Instrumental
- Classical
- Country western
- A variety of the above
- Other (write it here) \_\_\_\_\_
- Do not want music

Indicate your opinions about CONVENIENCES WITHIN YOUR DINING FACILITY:

- |    |  | Ⓐ         | Ⓑ          | Ⓒ       | Ⓓ          | Ⓔ         |   |
|----|--|-----------|------------|---------|------------|-----------|---|
|    |  | Extremely | Moderately | Neutral | Moderately | Extremely |   |
| a. | Convenient to enter & leave                    | Ⓐ         | Ⓑ          | Ⓒ       | Ⓓ          | Ⓔ         | Inconvenient to enter & leave                   |
| b. | Far from washroom                              | Ⓐ         | Ⓑ          | Ⓒ       | Ⓓ          | Ⓔ         | Close to washroom                               |
| c. | Large space between tables allows easy passage | Ⓐ         | Ⓑ          | Ⓒ       | Ⓓ          | Ⓔ         | Small space between tables forbids easy passage |
| d. | Inadequate table size for size of trays        | Ⓐ         | Ⓑ          | Ⓒ       | Ⓓ          | Ⓔ         | Adequate table size for trays                   |

Is the overall APPEARANCE OR ATMOSPHERE of your dining facility:

- |    |           |   |   |   |   |   |             |
|----|-----------|---|---|---|---|---|-------------|
| a. | Colorful  | Ⓐ | Ⓑ | Ⓒ | Ⓓ | Ⓔ | Drab        |
| b. | Cheerful  | Ⓐ | Ⓑ | Ⓒ | Ⓓ | Ⓔ | Dreary      |
| c. | Cluttered | Ⓐ | Ⓑ | Ⓒ | Ⓓ | Ⓔ | Uncluttered |
| d. | Beautiful | Ⓐ | Ⓑ | Ⓒ | Ⓓ | Ⓔ | Ugly        |
| e. | Relaxed   | Ⓐ | Ⓑ | Ⓒ | Ⓓ | Ⓔ | Tense       |
| f. | Sociable  | Ⓐ | Ⓑ | Ⓒ | Ⓓ | Ⓔ | Unsociable  |
| g. | Crowded   | Ⓐ | Ⓑ | Ⓒ | Ⓓ | Ⓔ | Uncrowded   |

Are the TABLES in your dining facility:

- |    |              |   |   |   |   |   |                 |
|----|--------------|---|---|---|---|---|-----------------|
| a. | Colorful     | Ⓐ | Ⓑ | Ⓒ | Ⓓ | Ⓔ | Drab            |
| b. | Beautiful    | Ⓐ | Ⓑ | Ⓒ | Ⓓ | Ⓔ | Ugly            |
| c. | Wide variety | Ⓐ | Ⓑ | Ⓒ | Ⓓ | Ⓔ | Limited variety |
| d. | Sturdy       | Ⓐ | Ⓑ | Ⓒ | Ⓓ | Ⓔ | Easy to damage  |
| e. | Roomy        | Ⓐ | Ⓑ | Ⓒ | Ⓓ | Ⓔ | Cramped         |

Indicate the TABLE SIZE you prefer:

- |           |           |           |           |                     |
|-----------|-----------|-----------|-----------|---------------------|
| 2 persons | 4 persons | 6 persons | 8 persons | More than 8 persons |
| ○         | ○         | ○         | ○         | ○                   |

Indicate the TABLE SHAPE you prefer:

- Round
- Square or Rectangular



**What hours would you like the dining facility to be open for your convenience?**

**Weekdays: Monday to Friday**

	<b>Breakfast</b>	<b>Mid-Day Meal</b>	<b>Evening Meal</b>
<b>From:</b>			
1 hr or more earlier	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30 min earlier	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15 min earlier	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sufficient as it is	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>To:</b>			
1 hr or more later	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30 min later	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15 min later	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sufficient as it is	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Weekends: Saturday and Sunday**

	<b>Breakfast</b>	<b>Mid-Day Meal</b>	<b>Evening Meal</b>
<b>From:</b>			
1 hr or more earlier	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30 min earlier	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15 min earlier	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sufficient as it is	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>To:</b>			
1 hr or more later	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30 min later	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15 min later	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sufficient as it is	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Is the food in your mess hall ever:**

	<b>Never</b>	<b>Sometimes</b>	<b>Often</b>	<b>Always</b>
a. Overcooked	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Undercooked	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Cold	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Tasteless or bland	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Burned	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Dried out	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Greasy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Tough	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Too spicy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Raw	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Still frozen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Too salty	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Does your dining facility use a SELF BUSSING system in which each person carries his own tray to the dishwashing area?

Yes                      No  
                     

Indicate how you do or would feel about having SELF BUSSING in the dining facilities:

Very                      Mildly                      Neutral                      Mildly                      Very  
 Acceptable              Acceptable                                           Unacceptable                      Unacceptable  
                                                                                       

Indicate your opinion about the policies concerning the SEPARATE RATIONS SYSTEMS:

Very                      Mildly                      Neutral                      Mildly                      Very  
 Acceptable              Acceptable                                           Unacceptable                      Unacceptable  
                                                                                       

Indicate your opinion of the following proposals:

a. In CONUS, everyone should receive the separate rations allowance. Each individual should then pay for the meals he eats in a military dining facility (breakfast: 35 cents; mid-day meal: 80 cents; evening meal: 60 cents).

Extremely              Mildly                      Neutral                      Mildly                      Extremely  
 Unfavorable              Unfavorable                                           Favorable                      Favorable  
                                                                                       

b. In CONUS, everyone should receive the separate rations allowance. Each individual should then pay for the specific items he takes from the serving line (2 eggs: 15 cents; hamburger: 20 cents; french fries: 10 cents; chicken: 45 cents).

Extremely              Mildly                      Neutral                      Mildly                      Extremely  
 Unfavorable              Unfavorable                                           Favorable                      Favorable  
                                                                                       

c. The current system gives some people a separate rations allowance and requires them to pay for each meal they eat in the dining facility. The others who do not receive that allowance are authorized to eat in the dining facilities without charge. This system should be retained.

Extremely              Mildly                      Neutral                      Mildly                      Extremely  
 Unfavorable              Unfavorable                                           Favorable                      Favorable

Indicate your opinion of the VARIETY of offerings at any particular WEEKEND meal.

	We need:	Many More Choices	A Few More Choices	Choices Now Enough	Fewer Choices Acceptable
a.	For short order foods:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b.	For meats:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c.	For starches:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d.	For vegetables:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e.	For salads:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f.	For beverages:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g.	For desserts:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Indicate your opinion of the VARIETY of foods offered in the menu during the course of a month or so.

	We need:	Many More Items	A Few More Items	Items Now Enough	Fewer Items Acceptable
a.	For short order:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b.	For meats:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c.	For starches:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d.	For vegetables:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e.	For salads:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f.	For beverages:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g.	For desserts:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Is CARRY OUT SERVICE available in your dining facility? (Disregard any flight feeding programs in this and the following two questions.)

Yes  No

Indicate how you do or would feel about CARRY OUT SERVICE being available from the dining facilities.

Extremely opposed    Neutral    Extremely Enthusiastic

If such a CARRY OUT SERVICE were available, how do you feel it would influence your attendance in the military dining facilities?

- No influence.
- I would eat a FEW MORE meals per week.
- I would eat MANY MORE meals per week.

How long do you USUALLY have to WAIT in line at the headcount station TO GET ADMITTED for a meal:

- I never have to wait in line.
- I wait between one and five minutes.
- I wait between five and ten minutes.
- I wait between ten and fifteen minutes.
- I wait longer than fifteen minutes.

Do you ever find that the food in your dining facility is, or has:

	Never	Sometimes	Often	Always
a. Gristle or tendon	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Excess fat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Stringy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Damaged or bruised (e.g., fruit or vegetables)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Over-ripe fruit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Under-ripe fruit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Stale	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Old looking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Sour (e.g., milk)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Spoiled	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Off-flavor or odor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other than times of dieting, do you ever LEAVE your dining facility WITHOUT ENOUGH TO EAT?

NEVER       SOMETIMES       OFTEN       ALWAYS

Do you serve yourself or do the dining facility personnel serve you the following items:

	SELF-SERVICE	SERVED BY OTHERS
a. Short order items	<input type="radio"/>	<input type="radio"/>
b. Meat items	<input type="radio"/>	<input type="radio"/>
c. Starches (i.e. potatoes)	<input type="radio"/>	<input type="radio"/>
d. Vegetables	<input type="radio"/>	<input type="radio"/>
e. Salads	<input type="radio"/>	<input type="radio"/>
f. Beverages	<input type="radio"/>	<input type="radio"/>
g. Desserts	<input type="radio"/>	<input type="radio"/>

Are SECOND HELPINGS PERMITTED for the following items?

	Always	Sometimes	Never
a. Short order items	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Meat items	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Starches (i.e. potatoes)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Vegetables	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Salads	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Beverages	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Desserts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How long do you **USUALLY** have to **WAIT IN THE SERVING LINE** after the headcount before you get your food?

- I never have to wait in line.
- I wait between one and five minutes.
- I wait between five and ten minutes.
- I wait between ten and fifteen minutes.
- I wait longer than fifteen minutes.

How long do you **USUALLY** have to **WAIT AT THE DISH WASHING AREA** when self-bussing?

- I never have to wait in line.
- I wait between one and five minutes.
- I wait between five and ten minutes.
- I wait between ten and fifteen minutes.
- I wait longer than fifteen minutes.
- Not applicable; no self-bussing.

For each of the following **RULES FOR BEHAVIOR**, first indicate whether or not the rules exist in your dining facility and then indicate whether you feel it should be **ENFORCED OR INSTITUTED**, whether you feel it should be **ABOLISHED OR NOT INSTITUTED**, or whether you have **NO OPINION** about it.

	Does Rule Exist?		Enforce or Institute	Abolish or not Institute	No Opinion
	Yes	No			
a. Dress regulations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Not allowing non-military guests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Calling "at ease" when officer enters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. No smoking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Officers and NCO's permitted to cut in line	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>
f. Separation of officers and NCO's from enlisted men	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Now we would like to have your opinions of food service systems in general. Therefore, answer the following questions as if your circumstances were different and you held a civilian job instead of being in military service.

Suppose you regularly went out to eat your **NOON MEAL** and had many places to choose from. Indicate the order of **IMPORTANCE** of each of the following **10 factors** in making your **CHOICE OF WHERE TO EAT** by darkening the circle under "1st" for the most important factor, darkening the circle under "2nd" for the second most important factor, and so on. Each factor then should have one ranking.

	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
a. Convenience of location	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. General appearance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Price	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Quality of food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Quantity of food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Variety of food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Speed of service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Availability of music	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Pleasantness of service personnel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Cleanliness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Answer the following questions for the regular meal only. Exclude the short order meal. Indicate "Not Appropriate" (8) if you have self-service and/or second helpings permitted.

a. What is your opinion about the amount of meat per serving:

Too Little	ⓐ	ⓑ	ⓒ	About Right	ⓓ	ⓔ	ⓕ	Too Much	NA
	ⓐ	ⓑ	ⓒ	ⓓ	ⓔ	ⓕ	ⓖ		ⓓ

b. What is your opinion about the amount of starches per serving:

Too Little	ⓐ	ⓑ	ⓒ	About Right	ⓓ	ⓔ	ⓕ	Too Much	NA
	ⓐ	ⓑ	ⓒ	ⓓ	ⓔ	ⓕ	ⓖ		ⓓ

c. What is your opinion about the amount of vegetables per serving:

Too Little	ⓐ	ⓑ	ⓒ	About Right	ⓓ	ⓔ	ⓕ	Too Much	NA
	ⓐ	ⓑ	ⓒ	ⓓ	ⓔ	ⓕ	ⓖ		ⓓ

d. What is your opinion about the amount of dessert per serving:

Too Little	ⓐ	ⓑ	ⓒ	About Right	ⓓ	ⓔ	ⓕ	Too Much	NA
	ⓐ	ⓑ	ⓒ	ⓓ	ⓔ	ⓕ	ⓖ		ⓓ

Indicate your opinion about the ABILITY of the COOKS to prepare high quality meals in your dining facilities.

Very Poor	ⓐ	ⓑ	ⓒ	Average	ⓓ	ⓔ	ⓕ	Excellent
	ⓐ	ⓑ	ⓒ	ⓓ	ⓔ	ⓕ	ⓖ	

Indicate your opinion about the ATTITUDES of the dining facility WORKERS to make your meal as pleasant as possible.

Very Poor	ⓐ	ⓑ	ⓒ	Average	ⓓ	ⓔ	ⓕ	Excellent
	ⓐ	ⓑ	ⓒ	ⓓ	ⓔ	ⓕ	ⓖ	

Indicate your opinion of the VARIETY of offerings at any particular WEEKDAY meal.

	We need:	Many More Choices	A Few More Choices	Choices Now Enough	Fewer Choices Acceptable
a. For short order foods:		ⓐ	ⓑ	ⓒ	ⓓ
b. For meats:		ⓐ	ⓑ	ⓒ	ⓓ
c. For starches:		ⓐ	ⓑ	ⓒ	ⓓ
d. For vegetables:		ⓐ	ⓑ	ⓒ	ⓓ
e. For salads:		ⓐ	ⓑ	ⓒ	ⓓ
f. For beverages:		ⓐ	ⓑ	ⓒ	ⓓ
g. For desserts:		ⓐ	ⓑ	ⓒ	ⓓ

Suppose you regularly went out to eat your **EVENING MEAL** and had many places to choose from. Indicate the order of **IMPORTANCE** of each of the following **10 factors** in making your **CHOICE OF WHERE TO EAT** by darkening the one for the most important factor, darkening the two for the second most important factor, and so on. Each factor then should have one ranking.

	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
a. Convenience of location	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. General appearance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
c. Price	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Quality of food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Quantity of food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Variety of food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Speed of service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Availability of music	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Pleasantness of service personnel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Cleanliness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Suppose you have decided to have an **INEXPENSIVE NOON** or **EVENING MEAL**. Would you prefer a cafeteria, self-service system or a waitress-service system?

	<b>Definitely</b>		<b>Probably</b>		<b>Neutral</b>		<b>Probably</b>		<b>Definitely</b>	
Self-service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Waitress service

## APPENDIX II

The tables presented on the following pages each contain a considerable amount of data and information. An explanation of the format is necessary to minimize the chances of any miscommunication.

All tests of statistical significance reported were based on t-tests for independent samples. Four tests of significance were usually performed on the data presented in the top portion of each table; the pairs of numbers for each of these four tests are inclosed within rectangles. The subsequent analyses performed on the data in the lower portion of each table were directed only at the differences between the attenders of the contractor system and the comparison consumers. Therefore, though each row of data had three elements (contractor attenders; contractor non-attenders; comparison consumers), only tests of differences between the first and third columns were performed (e.g., the first row of data in the lower portion of Table 4 is the consumer evaluation of gristle or tendon in the raw food products; the three means are 2.24, 1.97, and 2.01 respectively; the test of significant mean differences was only performed on the values 2.24 versus 2.01, which in this instance were found to be significantly different at the .01 level). For the data in the lower portion, no tests of significance were performed on the means of the contractor non-attenders versus the comparison consumers, nor between the contractor attenders versus contractor non-attenders.

Regarding Tables 9, 10, 17 and 18, no tests of significance were performed on the individual percentage values, but the usual tests were performed on the mean values.

Regarding the demographic information presented in Table 20, no tests of significance were performed.



TABLE 4  
Food Quality

Quality	Evaluation <sup>1</sup>		Cause for Non-Attendance <sup>2</sup>	
	Fort Myer	Fort Lee	Fort Myer	Fort Lee
	3.72	3.59	1.94	1.95
Attenders	3.81		2.03*	
Non-Attenders	3.51		1.75*	

	Fort Myer		Fort Lee
	Attenders	Non-Attenders	
<b>Perceived Quality of Raw Food Product<sup>3</sup></b>			
Gristle or tendon	2.24**	1.97	2.01**
Excess fat	2.23	2.09	2.08
Stringy	2.15	1.98	1.99
Old-looking	2.10	1.90	1.96
Stale	2.09	1.88	1.92
Damaged or bruised	2.08	1.95	2.07
Over-ripe fruit	1.91	1.93	1.92
Off-flavor or odor	1.86	1.80	1.81
Under-ripe fruit	1.80	1.81	1.84
Sour (e.g. milk)	1.63	1.57	1.53
Spoiled	1.47	1.58	1.47
<b>Perceived Quality of Food Preparation<sup>3</sup></b>			
Greasy	2.50*	2.26	2.30*
Tasteless or bland	2.40*	2.18	2.20*
Tough	2.40	2.15	2.26
Undercooked	2.21	2.06	2.20
Cold	2.21	2.04	2.10
Dried out	2.19	1.92	2.07
Overcooked	2.09	1.96	2.01
Burned	1.77	1.78	1.86
Raw	1.76	1.74	1.72
Too spicy	1.75	1.74	1.65
Too salty	1.41	1.56	1.52
Still frozen	1.29	1.45	1.42

\*: Significantly different at .05 level  
 \*\*: Significantly different at .01 level

1. Scale: 1 = Significant attraction . . . 5 = Significant problem
2. Scale: 1 = Not related to non-attendance . . . 3 = Major reason for non-attendance
3. Scale: 1 = Never; 2 = Sometimes; 3 = Often; 4 = Always

TABLE 5

Variety: Weekend and Weekday

	Evaluation <sup>1</sup>		Cause for Non-Attendance <sup>2</sup>	
	Fort Myer	Fort Lee	Fort Myer	Fort Lee
Variety: Weekend	3.46	3.49	1.61	1.76
Attenders	3.53		1.69**	
Non-Attenders	3.31		1.41**	
Variety: Weekday	3.44	3.48	1.61*	1.80*
Attenders	3.51		1.70***	
Non-Attenders	3.26		1.40***	

	Fort Myer		Fort Lee
	Attenders	Non-Attenders	
Opinions of Variety of WEEKEND Offerings <sup>3</sup>			
Meats	3.01	2.86	2.99
Vegetables	2.73	2.80	2.73
Salads	2.67	2.72	2.64
Desserts	2.65	2.68	2.79
Beverages	2.55	2.68	2.63
Starches	2.52	2.67	2.67
Opinions of Variety of WEEKDAY Offerings <sup>3</sup>			
Meats	2.98	2.89	3.02
Vegetables	2.78	2.81	2.78
Salads	2.70	2.76	2.71
Desserts	2.70*	2.67	2.89*
Beverages	2.49	2.73	2.61
Starches	2.49	2.58	2.67

\*: Significantly different at .05 level

\*\* : Significantly different at .01 level

\*\*\*: Significantly different at .001 level

1. Scale: 1 = Significant attraction . . . 5 = Significant problem

2. Scale: 1 = Not related to non-attendance . . . 3 = Major reason for non-attendance

3. Scale: 1 = Fewer choices acceptable; 2 = Choices now enough; 3 = A few more choices needed; 4 = Many more choices needed.

TABLE 6

Variety: Short Order and Over a Menu Cycle

	Evaluation <sup>1</sup>		Cause for Non-Attendance <sup>2</sup>	
	Fort Myer	Fort Lee	Fort Myer	Fort Lee
Variety: Short Order	3.47	3.57	1.62*	1.79*
Attenders	3.60**		1.73***	
Non-Attenders	3.21**		1.40***	

	Fort Myer		Fort Lee
	Attenders	Non-Attenders	
Opinions of Variety of SHORT ORDER offerings <sup>3</sup>			
On weekends		3.12	2.97
On weekdays		3.09	2.98
Over a menu cycle		3.14	2.98
Opinions of Variety of Offerings over a MENU CYCLE			
Meats		3.06	2.96
Vegetables		2.84	2.82
Salads		2.73	2.74
Desserts		2.71	2.70
Beverages		2.54	2.76
Starches		2.57	2.69

\*: Significantly different at .05 level  
 \*\*: Significantly different at .01 level  
 \*\*\*: Significantly different at .001 level

1. Scale: 1 = Significant attraction . . . 5 = Significant problem
2. Scale: 1 = Not related to non-attendance . . . 3 = Major reason for non-attendance
3. Scale: 1 = Fewer choices acceptable; 2 = Choices now enough; 3 = A few more choices needed; 4 = Many more choices needed

TABLE 7  
Food Quantity

	Evaluation <sup>1</sup>		Cause for Non-Attendance <sup>2</sup>	
	Fort Myer	Fort Lee	Fort Myer	Fort Lee
Quantity	3.50	3.51	1.68	1.79
Attenders	3.56		1.73	
Non-Attenders	3.40		1.57	

	Fort Myer		Fort Lee
	Attenders	Non-Attenders	

"Other than at times of dieting, do you ever leave your dining facility without enough to eat?"<sup>3</sup>

Mean response:	2.01	1.76	2.04
----------------	------	------	------

Opinions of amounts per serving of the items served by others<sup>4</sup>

Meat items	2.86	4.97	3.13
Vegetables	3.62***	5.37	4.27***
Starches	4.62	6.14	4.75

"Are second helpings permitted.....?"<sup>5</sup>

Meat items	2.59	2.42	2.52
Vegetables	2.50*	2.38	2.34*
Starches	2.51	2.37	2.42
Short order items	2.51	2.40	2.39

- \*: Significantly different at .05 level  
 \*\*: Significantly different at .01 level  
 \*\*\*: Significantly different at .001 level

1. Scale: 1 = Significant attraction . . . 5 = Significant problem
2. Scale: 1 = Not related to non-attendance . . . 3 = Major reason for non-attendance
3. Scale: 1 = Never; 2 = Sometimes; 3 = Often; 4 = Always
4. Scale: 1 = Too little . . . 4 = About right . . . 7 = Too much
5. Scale: 1 = Always; 2 = Sometimes; 3 = Never

**TABLE 8**  
**Service Personnel**

	Evaluation <sup>1</sup>		Cause for Non-Attendance <sup>2</sup>	
	Fort Myer	Fort Lee	Fort Myer	Fort Lee
Service Personnel	3.25*	3.47*	1.42***	1.71***
Attenders	3.25		1.44	
Non-Attenders	3.28		1.38	

	Fort Myer		Fort Lee
	Attenders	Non-Attenders	
Opinions About: <sup>3</sup>			
Ability of cooks	3.22	3.33	3.28
Attitudes of workers	3.49	3.38	3.16
Frequency of Finding: <sup>4</sup>			
Inappropriate or missing silverware	1.67***	1.71	2.17***
Not enough condiments	1.94***	1.92	2.26***
Left-overs served day after day	2.33**	1.94	2.03**
Serving line run outs	2.30	2.17	2.47
General Conditions: <sup>5</sup>			
Kitchen area	0.76	0.44	0.61
Serving counters	0.58	0.37	0.53
Dispensing devices	0.37	0.26	0.23
Silverware	0.25	0.14	0.08
Trays	0.49	0.30	0.40
Dishes and glasses	0.42	0.26	0.43
Floors	0.62***	0.23	0.26***
Tables and chairs	0.26	0.28	0.22

\*: Significantly different at .05 level  
 \*\*: Significantly different at .01 level  
 \*\*\*: Significantly different at .001 level

1. Scale: 1 = Significant attraction . . . 5 = Significant problem
2. Scale: 1 = Not related to non-attendance . . . 3 = Major reason for non-attendance
3. Scale: 1 = Very poor; . . . 4 = Average; . . . 7 = Excellent
4. Scale: 1 = Never; 2 = Sometimes; 3 = Often; 4 = Always
5. Scale: -2 = Extremely dirty; -1 = Moderately dirty; 0 = Neutral; 1 = Moderately clean  
2 = Extremely clean

TABLE 9  
Speed of Service

Speed of Service	Evaluation <sup>1</sup>		Cause for Non-Attendance <sup>2</sup>	
	Fort Myer	Fort Lee	Fort Myer	Fort Lee
		3.20***	3.70***	1.41***
Attenders	3.18		1.44	
Non-Attenders	3.27		1.34	

	Fort Myer		Fort Lee
	Attenders	Non-Attenders	
Usual Wait at Headcount:			
No wait	8%	36%	15%
1-5 minutes	73%	38%	21%
5-10 minutes	15%	20%	19%
10-15 minutes	2%	3%	19%
Over 15 minutes	2%	2%	26%
MEAN (minutes)	3.92***	3.43	8.98***

	Fort Myer		Fort Lee
	Attenders	Non-Attenders	
Usual Wait in Serving Line			
No wait	8%	35%	14%
1-5 minutes	68%	39%	39%
5-10 minutes	20%	21%	23%
10-15 minutes	4%	2%	13%
Over 15 minutes	1%	3%	11%
MEAN (minutes)	4.17***	3.56	6.51***

\*\*\*: Significantly different at .001 level

1. Scale: 1 = Significant attraction . . . 5 = Significant problem

2. Scale: 1 = Not related to non-attendance . . . . 3 = Major reason for non-attendance

TABLE 10  
Hours of Operation

Hours of Operation	Evaluation <sup>1</sup>			Cause for Non-Attendance <sup>2</sup>		
	Fort Myer		Fort Lee	Fort Myer		Fort Lee
	2.84***		3.51***	1.34***		1.68***
Attenders	2.71**			1.38		
Non-Attenders	3.15**			1.25		

  

Desired Hours:	BK <sup>3</sup>	Fort Myer			Fort Lee				
		Attenders		Non-Attenders	Attenders		Non-Attenders		
		MDM	EM	BK	MDM	EM	BK	MDM	EM
<u>Weekday</u>									
From: As is	85%	84%	84%	82%	80%	82%	68%	62%	64%
15 min. earlier	1%	2%	1%	1%	4%	1%	7%	10%	7%
30 min. earlier	7%	6%	5%	5%	7%	7%	11%	17%	12%
60 or more min. earlier	8%	8%	9%	13%	8%	9%	14%	11%	16%
MEAN: (minutes)	6.8**	6.8**	7.2***	9.1	7.7	7.9	12.6**	13.3**	14.6***
To: As is	69%	74%	64%	74%	70%	71%	62%	64%	58%
15 min. later	12%	1%	1%	1%	2%	5%	6%	8%	5%
30 min. later	20%	12%	10%	7%	9%	4%	15%	17%	13%
60 or more min. later	0%	14%	24%	8%	19%	21%	17%	11%	24%
MEAN: (minutes)	15.3	12.2	17.9	13.1	14.5	14.3	15.7	12.9	18.8
<u>Weekend</u>									
From: As is	86%	85%	86%	81%	79%	83%	70%	68%	70%
15 min. earlier	1%	1%	2%	5%	2%	2%	3%	4%	4%
30 min. earlier	4%	4%	4%	14%	4%	14%	7%	10%	8%
60 or more min. earlier	9%	9%	9%	0%	16%	0%	20%	18%	18%
MEAN: (minutes)	6.8***	7.1***	6.7**	7.7	10.7	9.4	14.4***	14.2***	13.6**
To: As is	67%	75%	70%	75%	79%	75%	63%	64%	63%
15 min. later	6%	1%	1%	2%	2%	2%	3%	5%	3%
30 min. later	27%	7%	7%	2%	19%	2%	9%	11%	10%
60 or more min. later	0%	18%	22%	21%	0%	20%	25%	20%	24%
MEAN: (minutes)	17.9	12.7	15.6	13.4	12.1	13.1	18.1	16.1	18.0

\*\* : Significantly different at .01 level  
 \*\*\* : Significantly different at .001 level

1. Scale: 1 = Significant attraction . . . 5 = Significant problem
2. Scale: 1 = Not related to non-attendance . . . 3 = Major reason for non-attendance
3. Scale: BK means breakfast; MDM means mid-day meal; EM means evening meal

TABLE 12

Food Quality

Quality	Evaluation <sup>1</sup>		Cause for Non-Attendance <sup>2</sup>	
	Bolling AFB	Composite	Bolling AFB	Composite
	4.09*	3.86*	2.25*	2.08*
Attenders	4.21*		2.37**	
Non-Attenders	3.88*		2.05**	

Perceived Quality of Raw Food Product <sup>3</sup>	Bolling AFB		Composite
	Attenders	Non-Attenders	
Gristle or tendon	2.86***	2.02	2.18***
Excess fat	2.38	2.24	2.26
Stringy	2.29	2.20	2.17
Old-looking	2.23	2.03	2.12
Stale	2.23*	2.02	2.06*
Damaged or bruised	2.09	2.09	2.13
Over-ripe fruit	1.93	2.04	2.01
Off-flavor or odor	2.02	1.94	1.94
Under-ripe fruit	1.93	2.00	1.92
Sour (e.g. milk)	1.69**	1.82	1.51**
Spoiled	1.62	1.77	1.50

Preceived Quality of Food Preparation <sup>3</sup>	Bolling AFB		Composite
	Attenders	Non-Attenders	
Greasy	2.58	2.40	2.44
Tasteless or bland	2.60	2.41	2.45
Tough	2.54*	2.38	2.38*
Undercooked	2.35	2.22	2.22
Cold	2.57***	2.26	2.24***
Dried out	2.42**	2.25	2.22**
Overcooked	2.29*	2.13	2.13*
Burned	2.02	2.05	1.90
Raw	1.87	1.99	1.73
Too spicy	1.98**	1.94	1.76**
Too salty	1.76	1.85	1.62
Still frozen	1.53	1.69	1.44

\*: Significantly different at .05 level

\*\* : Significantly different at .01 level

\*\*\*: Significantly different at .001 level

1. Scale: 1 = Significant attraction . . . 5 = Significant problem

2. Scale: 1 = Not related to non-attendance . . . 3 = Major reason for non-attendance

3. Scale: 1 = Never; 2 = Sometimes; 3 = Often; 4 = Always



TABLE 13

Variety: Weekend and Weekday

	Evaluation <sup>1</sup>		Cause for Non-Attendance <sup>2</sup>	
	Bolling AFB	Composite	Bolling AFB	Composite
Variety: Weekend	3.91*	3.69*	1.95	1.81
Attenders	4.02*		2.14***	
Non-Attenders	3.75*		1.65***	
Variety: Weekday	3.90**	3.64**	1.98*	1.82*
Attenders	4.04**		2.16***	
Non-Attenders	3.68**		1.68***	

	Bolling AFB		Composite
	Attenders	Non-Attenders	
Opinions of Variety of WEEKEND Offerings <sup>3</sup>			
Meats	3.15	2.92	3.06
Vegetables	2.85	2.71	2.70
Salads	2.75	2.61	2.63
Desserts	2.76	2.79	2.76
Beverages	2.62	2.62	2.59
Starches	2.85*	2.58	2.65*
Opinions of Variety of WEEKDAY Offerings <sup>3</sup>			
Meats	3.16	3.00	3.07
Vegetables	2.83	2.81	2.73
Salads	2.69	2.74	2.64
Desserts	2.79	2.74	2.81
Beverages	2.51	2.65	2.58
Starches	2.72	2.65	2.63

\*: Significantly different at .05 level  
 \*\*: Significantly different at .01 level  
 \*\*\*: Significantly different at .001 level

- Scale: 1 = Significant attraction . . . . 5 = Significant problem
- Scale: 1 = Not related to non-attendance . . . . 3 = Major reason for non-attendance
- Scale: 1 = Fewer choices acceptable; 2 = Choices now enough; 3 = A few more choices needed; 4 = Many more choices needed

TABLE 14

Variety: Short Order and Over a Menu Cycle

	Evaluation <sup>1</sup>		Cause for Non-Attendance <sup>2</sup>	
	Bolling AFB	Composite	Bolling AFB	Composite
Variety: Short Order	3.76*	3.54*	1.81	1.67
Attenders	3.83		1.95**	
Non-Attenders	3.66		1.60**	

	Bolling AFB		Composite
	Attenders	Non-Attenders	
Opinions of Variety of SHORT ORDER Offerings <sup>3</sup>			
On weekends	3.11	2.98	3.04
On Weekdays	3.09	3.05	3.03
Over a menu cycle	3.21	3.02	3.05
Opinions of Variety of Offereings over a MENU CYCLE			
Meats	3.26	3.00	3.14
Vegetables	2.93	2.79	2.76
Salads	2.87*	2.75	2.68*
Desserts	2.85	2.69	2.78
Beverages	2.67	2.55	2.62
Starches	2.88	2.72	2.71

\*: Significantly different at .05 level

\*\* : Significantly different at .01 level

1. Scale: 1 = Significant attraction . . . 5 = Significant problem

2. Scale: 1 = Not related to non-attendance . . . 3 = Major reason for non-attendance

3. Scale: 1 = Fewer choices acceptable; 2 = Choices now enough; 3 = A few more choices needed; 4 = Many more choices needed

**TABLE 15**  
**Food Quantity**

Quantity	Evaluation <sup>1</sup>		Cause for Non-Attendance <sup>2</sup>	
	Bolling AFB	Composite	Bolling AFB	Composite
		3.73	3.54	1.87
Attenders	3.85*		1.96*	
Non-Attenders	3.53*		1.71*	

	Bolling AFB		Composite
	Attenders	Non-Attenders	
"Other than at times of dieting, do you ever leave your dining facility without enough to eat?" <sup>3</sup>			
Mean response:	1.97	1.86	1.84
Opinions of amounts per serving of the items served by others <sup>4</sup>			
Meat items	2.56	2.42	2.45
Vegetables	3.68	3.26	3.63
Starches	4.29	4.12	4.26
"Are second helpings permitted.....?" <sup>5</sup>			
Meat items	1.73***	1.97	1.96***
Vegetables	1.31	1.67	1.44
Starches	1.35	1.71	1.48
Short order items	1.37**	1.76	1.54**

\*: Significantly different at .05 level  
 \*\*: Significantly different at .01 level  
 \*\*\*: Significantly different at .001 level

1. Scale: 1 = Significant attraction . . . 5 = Significant problem
2. Scale: 1 = Not related to non-attendance . . . 3 = Major reason for non-attendance
3. Scale: 1 = Never; 2 = Sometimes; 3 = Often; 4 = Always
4. Scale: 1 = Too little . . . 4 = About right . . . 7 = Too much
5. Scale: 1 = Always; 2 = Sometimes; 3 = Never

TABLE 16  
Service Personnel

	Evaluation <sup>1</sup>		Cause for Non-Attendance <sup>2</sup>	
	Bolling AFB	Composite	Bolling AFB	Composite
Service Personnel	3.82***	3.49***	1.82*	1.64*
Attenders	3.83		1.89	
Non-Attenders	3.80		1.72	

	Bolling AFB		Composite
	Attenders	Non-Attenders	
Opinions About: <sup>3</sup>			
Ability of cooks	2.69**	3.10	3.09**
Attitudes of workers	2.83*	2.89	3.18*
Frequency of Finding: <sup>4</sup>			
Inappropriate or missing silverware	2.48***	2.08	2.06***
Not enough condiments	2.40**	2.01	2.10**
Left-overs served day after day	2.64***	2.27	2.29***
Serving line run outs	2.81***	2.38	2.40***
General Conditions: <sup>5</sup>			
Kitchen area	0.36	0.26	0.37
Serving counters	0.28	0.32	0.40
Dispensing devices	0.08	0.35	0.18
Silverware	-0.23	0.04	-0.05
Trays	0.34	0.11	0.31
Dishes and glasses	0.22	0.00	0.08
Floors	0.12	0.16	0.20
Tables and chairs	-0.06	-0.02	0.14

\*: Significantly different at .05 level  
 \*\*: Significantly different at .01 level  
 \*\*\*: Significantly different at .001 level

1. Scale: 1 = Significant attraction . . . 5 = Significant problem
2. Scale: 1 = Not related to non-attendance . . . . 3 = Major reason for non-attendance
3. Scale: 1 = Very poor; . . . 4 = Average; . . . 7 = Excellent
4. Scale: 1 = Never; 2 = Sometimes; 3 = Often; 4 = Always
5. Scale: -2 = Extremely dirty; -1 = Moderately dirty; 0 = Neutral; 1 = Moderately clean; 2 = Extremely clean

**TABLE 17**  
**Speed of Service**

Speed of Service	Evaluation <sup>1</sup>		Cause for Non-Attendance <sup>2</sup>	
	Bolling AFB	Composite	Bolling AFB	Composite
	Attenders	3.68	3.57	1.67
Non-Attenders	3.67	3.70	1.74	1.56

	Bolling AFB		Composite
	Attenders	Non-Attenders	
<b>Usual Wait at Headcount:</b>			
No wait	10%	30%	16%
1-5 minutes	63%	43%	53%
5-10 minutes	20%	22%	22%
10-15 minutes	7%	4%	6%
Over 15 minutes	1%	1%	3%
MEAN (minutes)	4.33	3.63	4.52
 <b>Usual Wait in Serving Line</b>			
No wait	9%	32%	13%
1-5 minutes	56%	45%	58%
5-10 minutes	31%	19%	22%
10-15 minutes	3%	3%	5%
Over 15 minutes	1%	1%	2%
MEAN (minutes)	4.55	3.36	4.42

1. Scale: 1 = Significant attraction . . . 5 = Significant problem
2. Scale: 1 = Not related to non-attendance . . . 3 = Major reason for non-attendance

TABLE 18

Hours of Operation

Hours of Operation	Evaluation <sup>1</sup>		Cause for <sup>2</sup> Non-Attendance	
	Bolling AFB	Composite	Bolling AFB	Composite
Hours of Operation	3.60	3.44	1.63	1.61
Attenders	3.63		1.71*	
Non-Attenders	3.54		1.50*	

Desired Hours:	BK <sup>3</sup>	Bolling AFB			Composite			BK	MDM	EM
		Attenders	Non-Attenders		Attenders	Non-Attenders				
		MDM	EM	BK	MDM	EM	BK	MDM	EM	
<u>Weekday</u>										
From:										
As is	79%	78%	83%	70%	72%	78%	74%	72%	73%	
15 min. earlier	4%	3%	2%	4%	7%	1%	1%	3%	4%	
30 min. earlier	7%	12%	3%	9%	9%	6%	8%	12%	8%	
60 or more min. earlier	10%	6%	11%	17%	12%	16%	17%	13%	14%	
MEAN: (minutes)	8.6	7.8*	8.0**	13.7	11.0	11.3	12.6	11.9*	11.7**	
To:										
As is	56%	67%	54%	61%	71%	70%	61%	62%	56%	
15 min. later	4%	3%	1%	3%	4%	3%	2%	2%	3%	
30 min. later	10%	12%	14%	8%	8%	6%	10%	14%	11%	
60 or more min. later	30%	18%	30%	28%	17%	21%	27%	22%	30%	
MEAN: (minutes)	21.4	15.0	22.3	19.5	13.0	14.8	19.5	17.8	21.7	
<u>Weekend</u>										
From:										
As is	87%	77%	73%	78%	80%	78%	76%	74%	73%	
15 min. earlier	1%	1%	1%	0%	3%	2%	2%	2%	3%	
30 min. earlier	5%	13%	15%	4%	6%	9%	5%	9%	7%	
60 or more min. earlier	7%	9%	11%	18%	11%	10%	17%	15%	16%	
MEAN: (minutes)	5.7**	9.3	11.4	12.1	8.9	9.2	11.8**	12.0	12.5	
To:										
As is	63%	60%	55%	63%	70%	71%	61%	62%	60%	
15 min. later	2%	1%	2%	4%	2%	3%	2%	2%	2%	
30 min. later	7%	12%	11%	3%	7%	4%	6%	10%	8%	
60 or more min. later	29%	26%	32%	29%	21%	21%	31%	25%	30%	
MEAN: (minutes)	19.5	19.5	22.8	19.0	14.8	14.7	20.7	18.6	20.8	

\*: Significantly different at .05 level

\*\* : Significantly different at .01 level

1. Scale: 1 = Significant attraction . . . 5 = Significant problem

2. Scale: 1 = Not related to non-attendance . . . 3 = Major reason for non-attendance

3. BK means breakfast; MDM means mid-day meal; EM means evening meal

TABLE 20

Demographic Characteristics	Fort Myer	Fort Lee	Bolling AF Base	Composite Air Force
SEX				
Male	78%	99%	91%	94%
Female	22%	1%	9%	6%
RACE				
Caucasian	74%	68%	73%	77%
Negro/Black	20%	26%	21%	17%
Oriental	1%	1%	½%*	1%
Other	5%	4%	5%	5%
AGE (years)				
17	-	2%	½%*	½%*
18	2%	8%	4%	6%
19	8%	12%	8%	14%
20	9%	18%	12%	18%
21	22%	9%	14%	16%
22	11%	6%	14%	9%
23	8%	6%	6%	7%
24	8%	3%	8%	4%
25	5%	3%	6%	4%
26-28	9%	6%	9%	4%
29-31	5%	7%	7%	4%
32-34	5%	5%	3%	3%
35-37	3%	4%	4%	5%
38-40	2%	4%	2%	3%
41-43	2%	4%	½%*	1%
44-46	2%	2%	1%	1%
47 & ↑	1%	2%	½%*	1%
MEAN	24.6	25.4	24.1	23.8
EDUCATION				
Some grade school	-	1%	-	½%*
Finished grade school	-	½%*	½%*	1%
Some high school	1%	13%	1%	3%
High school graduate	48%	56%	46%	55%
Skilled job training	4%	4%	5%	4%
Some college	37%	20%	34%	33%
College graduate	7%	5%	8%	3%
Beyond college	2%	1%	6%	1%

\*: Less than ½%.

TABLE 20 (cont'd)

Demographic Characteristics	Fort Myer	Fort Lee	Bolling AF Base	Composite Air Force
HOME STATES				
Alabama	1%	4%	½%*	2%
Alaska	0	½%*	0	½%*
Arizona	0	1%	1%	1%
Arkansas	1%	1%	½%*	1%
California	8%	6%	4%	11%
Colorado	1%	1%	½%*	1%
Connecticut	3%	1%	½%*	1%
Delaware	1%	½%*	1%	½%*
Florida	2%	3%	3%	6%
Georgia	3%	2%	3%	2%
Hawaii	1%	1%	½%*	1%
Idaho	½%*	1%	½%*	½%*
Illinois	4%	3%	2%	4%
Indiana	2%	1%	2%	3%
Iowa	½%*	½%*	1%	2%
Kansas	0	1%	1%	½%*
Kentucky	2%	2%	1%	2%
Louisiana	½%*	2%	1%	2%
Maine	1%	1%	1%	1%
Maryland	4%	3%	8%	2%
Massachusetts	3%	2%	6%	2%
Michigan	4%	4%	1%	4%
Minnesota	2%	1%	1%	3%
Mississippi	2%	1%	1%	1%
Missouri	1%	2%	2%	2%
Montana	½%*	½%*	½%*	½%*
Nebraska	0	½%*	1%	1%
Nevada	0	½%*	½%*	½%*
New Hampshire	0	½%*	1%	½%*
New Jersey	2%	2%	3%	2%
New Mexico	0	½%*	½%*	½%*
New York	7%	8%	10%	7%
North Carolina	4%	4%	4%	3%
North Dakota	½%*	½%*	½%*	1%
Ohio	8%	5%	7%	5%
Oklahoma	1%	1%	½%*	1%
Oregon	1%	½%*	1%	1%
Pennsylvania	8%	6%	10%	5%
Rhode Island	0	½%*	1%	½%*
South Carolina	1%	2%	1%	2%
South Dakota	0	0	½%*	½%*
Tennessee	1%	2%	3%	2%
Texas	3%	5%	3%	7%
Utah	0	½%*	0	½%*
Vermont	0	1%	0	½%*
Virginia	6%	7%	7%	2%
Washington	2%	2%	1%	1%
West Virginia	2%	2%	2%	1%
Wisconsin	2%	1%	1%	2%
Wyoming	2%	½%*	1%	½%*
Other U.S. territories	1%	4%	½%*	1%
Outside U.S. territories	0	2%	1%	1%

\*: Less than ½%.



TABLE 20 (cont'd)

Demographic Characteristics	Fort Myer	Fort Lee	Bolling AF Base	Composite Air Force
<b>TIME IN SERVICE (years)</b>				
0.0 - 0.5	3%	26%	3%	6%
0.51 - 1.0	8%	18%	10%	13%
1.01 - 1.5	10%	2%	4%	21%
1.51 - 2.0	22%	5%	12%	13%
2.01 - 2.5	14%	7%	13%	12%
2.51 - 3.0	9%	3%	7%	4%
3.01 - 3.5	3%	1%	13%	4%
3.51 - 4.0	2%	1%	7%	3%
4.01 - 5.0	4%	2%	3%	3%
5.01 - 6.0	3%	3%	4%	2%
6.01 - 7.0	2%	4%	8%	2%
7.01 - 8.0	2%	2%	3%	1%
8.01 - 9.0	4%	1%	5%	1%
9.01 - 10.0	2%	1%	2%	1%
10.01 - 15.0	7%	10%	5%	5%
15.01 - 20.0	5%	8%	12%	9%
20.0 &	4%	6%	1%	3%
MEAN	4.7	5.5	4.9	4.6
<b>REENLISTMENT PLANS</b>				
1. Definitely yes	22%	20%	18%	10%
2. Probably yes	10%	9%	12%	10%
3. Undecided	20%	18%	27%	24%
4. Probably no	11%	11%	14%	15%
5. Definitely no	37%	42%	28%	41%
MEAN	3.3	3.5	3.2	3.7
<b>REACTION TO MILITARY SERVICE</b>				
1. Dislike very much	19%	20%	13%	17%
2. Dislike moderately	10%	8%	7%	13%
3. Dislike a little	6%	8%	6%	8%
4. Neutral	18%	19%	24%	22%
5. Like a little	5%	7%	8%	8%
6. Like moderately	21%	18%	25%	21%
7. Like very much	21%	21%	16%	11%
MEAN	4.3	4.2	4.5	4.0
<b>PAY GRADES</b>				
E-1	½%*	12%	2%	2%
E-2	8%	28%	12%	16%
E-3	14%	8%	17%	37%
E-4	39%	12%	33%	20%
E-5	18%	14%	18%	12%
E-6	10%	15%	15%	7%
E-7	7%	8%	2%	4%
E-8	1%	3%	1%	1%
E-9	1%	1%	½%*	1%
MEAN	4.4	3.8	4.1	3.7

\*: Less than ½%.

TABLE 20 (cont'd)

Demographic Characteristics	Fort Myer	Fort Lee	Bolling AF Base	Composite Air Force
<b>RURAL/URBAN BACKGROUND</b>				
<b>Raised:</b>				
In the country	21%	25%	15%	20%
In a town with less than 2500 people	7%	7%	9%	8%
In a town or small city with 2500-25,000 people	22%	16%	18%	21%
In a city with 25,000-100,000 people	15%	19%	23%	19%
In a suburb of a large or very large city	12%	6%	8%	8%
In a large city with 100,000-1,000,000 people	15%	16%	17%	14%
In a very large city with over 1,000,000 people	8%	10%	9%	9%