



8-1970

Food Service Personnel Training and Employment Needs in East Tennessee Hospitals

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To the Graduate Council:

I am submitting herewith a thesis written by Betty Ingle Foster entitled "Food Service Personnel Training and Employment Needs in East Tennessee Hospitals." I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Management Science.

Mary J. Hitchcock, Major Professor

We have read this thesis and recommend its acceptance:

Grayce E. Goertz, Mary Nelle Traylor

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

August 10, 1970

To the Graduate Council

I am submitting herewith a thesis written by Betty Ingle Foster entitled "Food Service Personnel Training and Employment Needs in East Tennessee Hospitals." I recommend that it be accepted for nine quarter hours of credit in partial fulfillment of the requirements for the degree of Master of Science, with a major in Institution Management.

Mary J. Hitchcock
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We have read this thesis
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FOOD SERVICE PERSONNEL TRAINING AND EMPLOYMENT NEEDS
IN EAST TENNESSEE HOSPITALS

A Thesis
Presented to
the Graduate Council of
The University of Tennessee

In Partial Fulfillment
of the Requirements for the Degree
Master of Science

by
Betty Ingle Foster
August 1970

ACKNOWLEDGMENTS

Appreciation is expressed to Dr. Mary Jo Hitchcock for her patience, encouragement, and guidance in preparation of this thesis. Suggestions received from Dr. Grayce E. Goertz and Miss Mary Nelle Traylor are appreciated.

The author is also indebted to the hospital administrators and persons in charge of the hospital dietary departments for answering the questionnaires and participating in personal interviews.

The author is grateful for the patience received from her husband, Martin Foster.

ABSTRACT

Training and employment needs for food service personnel employed in 20 randomly selected hospitals in East Tennessee were studied. Hospital administrators and heads of dietary departments answered questionnaires and participated in personal interviews.

Shortage of adequately trained food service personnel existed. Thirty percent of the heads of dietary departments had earned baccalaureate degrees, 15 percent were members of the American Dietetic Association; whereas 10 percent had not graduated from high school. Eighty percent had participated in food service training programs prior to current employment with 65 percent participating in the last two years. Five percent of the remaining food service personnel had participated in food service training programs prior to current employment with 7 percent participating in the last two years. In all hospitals surveyed, supervised on-the-job instructions were given to food service personnel.

The training needs of food service personnel grouped into job classifications were evaluated by the heads of dietary departments. Skills and areas of knowledge considered most important for food service personnel in effectively performing their tasks included: (1) menu planning, food procurement, and human nutrition and food science for managerial personnel, (2) principles of quantity food preparation and service, human relations, and principles of nutrition and diet therapy for supervisory personnel, (3) sanitation and personal hygiene, principles

of quantity food preparation, and proper food handling and storage for food preparation workers, and (4) sanitation and personal hygiene for food service and food sanitation workers. The training of managerial personnel, supervisory personnel, and food preparation workers was considered a mutual responsibility of the hospitals and other agencies such as governmental or educational agencies. The training of food service and food sanitation workers was considered a major responsibility of hospitals.

Employment of food service personnel totaled 469 employees with eight vacant positions. Future employment needs were not determined since only four of the 16 food service managers employed in hospitals planning expansion of facilities could estimate the number of future positions needed.

In this study, a need existed for the development of training programs for all levels of food service personnel. Through effective utilization of training programs, hospital dietary departments may increase their supply of adequately trained personnel, increase the level of productivity, and reduce operational costs, especially labor turnover costs.

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CHAPTER I

INTRODUCTION

The food service industry serves over 60,000,000 Americans each week in 520,000 food service facilities (Stokes, 1967). The growth of the industry has evolved with the increased custom of "eating out." Dining away from home has become a national necessity and a recreational pastime. In 1966 one out of every four meals was eaten away from home; whereas just three years later, one out of every three meals was consumed in restaurants, cafeterias, institutions, and other food service facilities (O'Malley, 1969).

To meet the demands of the rapidly growing market, food service managers effectively must cope with the surmounting "high costs-low sales price squeeze." Since 1961 annual wholesale food prices have increased at an average rate of 1 percent, and wages have risen at a 6 percent rate; whereas in 1968 productivity increased at only a 3 percent rate (O'Malley, 1969). The gap between costs and productivity provides one reason why one out of three food service facilities closes the doors by the end of the first year of operation (West et al., 1966).

Increasing productivity and decreasing labor costs have been solutions in operating profitable food service facilities. Technological advancements such as automated equipment, computers, microwave ovens, convenience foods, and disposable items have revolutionized many food service systems. Even though technological improvements have increased

productivity and reduced labor costs, they have not compensated for incompetent manpower (O'Malley, 1969).

Management involves getting work accomplished through manipulation of the five M's: men, materials, money, machines, and methods. Management of men is the most difficult and complex of the five M's (West et al., 1966). Competent employees, properly placed and properly motivated, are the basis for increasing productivity and reducing labor costs (O'Malley, 1969). In the food service industry, a shortage of competent manpower extends from bottom to top levels. Development of competent manpower involves providing:

1. Educational opportunities, especially for the unskilled and unemployed individuals.
2. Continued educational opportunities for all levels of personnel.
3. Motivational incentives to increase the food service labor supply by conducting recruitment programs and increasing wages and promotional opportunities.

Whenever higher productivity is achieved and labor costs are reduced, food service facilities will be able to pay the wages and to offer the promotional opportunities desired by the employees of tomorrow (Lattin, 1969).

Training programs have been developed in food service facilities to improve the performance of employees, increase productivity, reduce absenteeism, reduce labor turnover, and reduce labor costs (Pope, 1969; Furlong et al., 1967; and Rockwell et al., 1960). Development of training

programs has received emphasis from the federal government with legislation designed to financially assist organizations in conducting training programs (Augspurger, 1965). Successful food service training programs have been established through government-industry cooperation (Moss, 1969).

In hospitals, training programs have been conducted to curtail the shortage of health manpower and to provide better patient care (Adams, 1969). At the Research Hospital and Medical Center in Kansas City, Missouri, an audiovisual multimedia center was constructed to provide a physical environment conducive for the development of extensive training programs for all personnel. At the center, training instructors advised department heads and supervisors in the function of training their employees. A. C. Bennett has been quoted as stating that the greatest manpower problem in hospitals is the lack of integrated long-range training programs (McCarthy, 1969).

As a basis for the development of training programs for food service personnel on a state-wide basis, a study was designed to investigate the training and employment needs for food service personnel in various food service facilities in Tennessee. The purpose of this study was to assess the present and future training and employment needs for food service personnel in selected hospital dietary departments in East Tennessee.

CHAPTER II

REVIEW OF LITERATURE

I. IMPORTANCE OF TRAINING

Training in business and industry is the process of changing the behavior of employees by developing or modifying their skills, knowledge, and attitudes in order to effectively attain organizational goals and objectives. For achievement of economic goals, training should be designed to raise productivity to a point where all costs of the end products will be low enough to permit profits to be made on sales (McGehee et al., 1961). Theoretically, training should decrease costs of production by reducing:

1. Labor costs by increasing the job proficiency of employees to an acceptable productivity level.
2. Costs of materials and supplies by decreasing excessive waste and production of defective products.
3. Costs of personnel administration as decreased with lower rates of labor turnover, absenteeism, accidents, grievances, and complaints (McGehee et al., 1961).

As quoted from Stokes (1967), "It costs money to train, but it costs more money not to train."

Training may be advantageous for the employees as well as the organization. Training may create opportunities for employees to increase their earning power and promotional possibilities, to enhance

their self-respect, and to increase their feeling of security and economic independence (Stokes, 1969).

Training, a tool of management, should be a continuous process not a "sometime happening." For a training program to be effective in modifying the behavior of employees to best achieve organizational goals, it must include both training and a program (Hartman, 1961). Objectives, procedures, and teaching methods should be clearly defined. Training should be a means to an end, but not the end itself (McGehee et al., 1961).

In food service facilities such as restaurants and hospital dietary departments, food service managers have developed their own training programs (Pope, 1969; Fisher, 1967; Baden, 1967; and Gehring, 1964). Reasons for training in the food service industry often have been cited as a shortage of qualified manpower, low productivity as influenced by low morale and low job satisfaction of employees, and high labor turnover.

Shortage of Qualified Manpower

Job vacancies in the total food service industry were estimated at approximately 65,000 positions in 1968. Forty percent of the vacancies were for kitchen and related employees who made up only 16 percent of the food service labor force. Only 3 percent of the vacancies were in managerial positions comprising 19 percent of the food service labor force. These estimations were made by Moss (1969) from data obtained from a study conducted by the National Restaurant Association and the U. S. Employment Service in which 3,800 public eating and drinking facilities were surveyed.

In hospital dietary departments, the shortage of professional and technical manpower has been determined by several studies. The U. S. Department of Labor (1968-1969) reported that 30,000 dietitians were employed in 1967 in various food service facilities, educational institutions, and public health agencies.

The American Dietetic Association with the cooperation of the American Hospital Association, conducted a study in 1963 to determine the educational qualifications and employment needs of persons in charge of hospital-operated dietary departments. Fifty-seven percent of the persons in charge of hospital-operated dietary departments had earned baccalaureate degrees with dietitians comprising 82 percent of the college graduates, and 3 percent had received associate degrees; whereas 33 percent had not attended college. The remaining 7 percent had taken undergraduate courses in colleges or schools of hotel and restaurant administration but had not earned degrees.

The study reported that dietitians were in charge of 47 percent of the hospital-operated dietary departments, food service managers¹ were in charge of 18 percent, cook-managers² were in charge of 12 percent, and food service supervisors³ were in charge of 6 percent. The remaining

¹A food service manager is a person who may or may not hold a baccalaureate degree who has experience and is competent in food service management.

²A cook-manager is a person who by training, education, or experience assumes the responsibility of food service management.

³A food service supervisor is a person who by special training, education, and experience is capable of performing supervisory duties delegated by a person in charge of the department. In small institutions, this position is sometime called a cook-manager.

dietary departments were directed by hospital administrators and other undetermined personnel. In 24 percent of the dietary departments operated by contract food service companies, dietitians were in charge. Consultant dietitians were employed in an additional 20 percent.

Job vacancies were estimated from data received from 3,838 of the 7,228 hospitals in the United States. Vacant positions for dietitians employed in hospitals were estimated at 3,000 to 3,500 positions in 1963. Approximately 10,000 positions for food service supervisors were vacant (Anon, 1964).

A study conducted by the U. S. Public Health Service and the American Hospital Association estimated that approximately 14,500 dietitians and food service managers were employed in 5,342 hospitals in 1966. In the following year, approximately 5,200 additional dietitians and food service managers were required to fill all vacant positions (Richter, 1967).

In 1970 the Tennessee Hospital Association conducted a study in 121 of the 189 licensed hospitals in Tennessee to determine the employment need for para-medical professionals. Less than 50 dietitians who were members of the American Dietetic Association were employed. Fifty-two food service supervisors were employed with an estimated additional 91 supervisors needed by 1973. In order of priority of employment needs of the 20 para-medical professions, medical technologists ranked first, physical therapists second, and food service supervisors, laboratory technicians, and medical record librarians third. The study did not determine the employment need for dietitians or other food service personnel (Tennessee Hospital Association, 1970).

A study was conducted at Iowa State University in 1966 to assess the training needs of food service personnel employed in Iowa hospitals. Data indicated that trained employees were needed in all job classifications. Eighty-eight percent of the persons in charge of the hospital dietary departments had experience or training in food service prior to their current employment, with only 40 percent having previous experience at managerial or supervisory levels. Forty percent had managed their food service facility less than five years. Thirty-three percent had earned baccalaureate degrees, and 25 percent were members of the American Dietetic Association. Methods for training employees were suggested as a basis for designing managerial training programs since most training programs conducted in the dietary departments were defined as "hit-and-miss" on-the-job instruction (Jolin et al., 1968).

Low Productivity

Of the behavioral modifications--skills, knowledge, and attitudes, attitudes are the most difficult to measure. Even though productivity is influenced by variables such as environmental conditions, equipment efficiency, and quality of supervision, it can easily be valued in dollars and cents (Warren, 1969). In business and industry the degree of employee job satisfaction, morale, and attitudes most often is measured in terms of productivity since attitude scales or semantic-differential rating systems are difficult to validate.

In hospital dietary departments, Furlong et al. (1967), Martin (1957), and Stanfield (1959) indicated that formal training increased

productivity by increasing the degree of employee job satisfaction and morale. Pope (1969), president of Pope's Cafeterias, stated that since wages have increased faster than food prices on menus, training programs in his restaurant chain were essential in order to increase the productivity of employees who were unskilled when hired.

Productivity in the "goods" sector of agriculture, manufacturing, and mining has far exceeded productivity in the "service" trades. For example, in manufacturing industries such as U. S. Steel, General Motors, and petroleum and chemical industries, the productivity level achieved in the 1960's reached an average of 80 percent; whereas the productivity level achieved by the food service industry reached only 43 percent (Lattin, 1969). Kotschevar (1969) reported that the rate of increase in annual productivity in the food service industry was only 0.1 percent; while the rate of increase for the national annual productivity level was 3.5 percent.

High Labor Turnover

In hospitals, labor costs influenced by labor turnover have averaged 62 percent of total expenditures (Osterhaus, 1968). Every employee represents a financial outlay when the costs of hiring, training, and firing are calculated (Gray et al., 1967). In the study conducted by the National Restaurant Association and the U. S. Employment Service in 3,800 public eating and drinking facilities, 7 percent of the labor force voluntarily resigned in one month (Moss, 1969). Winter (1969) estimated the cost of labor turnover per restaurant employee to average between \$300 to \$400.

At the Memorial Hospital in Wilmington, Delaware, the administrator investigated the reasons for the hospital's high labor turnover rate. For a year all terminated employees were interviewed concerning their reasons for termination. As a result of the investigation, the hospital for the first time developed an employee's handbook, an employee's orientation manual, and grievance procedures. In one year the labor turnover rate decreased by 36 percent. With the cost of labor turnover valued at \$100 per employee, the hospital saved \$24,000 (Rockwell et al., 1960).

A study conducted in 17 hospital dietary departments by Peltó et al. (1965) indicated that the existence of training programs decreased labor turnover rates. Average annual labor turnover rates ranged from 8 to 65 percent. Formal training programs existed in only the six departments which had labor turnover rates below 25 percent. Employees who were terminated most often had the following characteristics:

1. In the age group between 16 to 19 years old.
2. Employed more than three but less than six months.
3. Performed duties related to tray preparation and service or sanitation.

The amount of previous work experience and present salary did not influence labor turnover.

Gray et al. (1967) found that the direct cost of labor turnover per kitchen employee in a hospital dietary department ranged from \$112.57 to \$165.27. Ninety-six percent of the total direct cost was attributed to personnel time involved in accessions and separations of employees.

In a study conducted in 19 hospital dietary departments by Harwood et al. (1968), the content and concentration of indoctrination, orientation, and training programs were analyzed as to their relationship to labor turnover and the degree of employee job satisfaction. The departments conducting the most concentrated programs had the lowest labor turnover rates and appeared to have higher levels of employee job satisfaction.

II. EXISTENCE OF TRAINING PROGRAMS

Development of training programs has received emphasis from the federal government with legislation designed to financially assist organizations in conducting training programs (Augspurger, 1965). Financial assistance has been provided for development of trained manpower at all educational levels. For development of nonprofessional manpower, the Manpower Training and Development Act of 1962, the Vocational Education Act of 1963, and the Economic Opportunity Act of 1964 were designed (Mallory, 1966). The Higher Education Facilities Act of 1963, the National Defense Education Act amended in 1964 (Augspurger, 1965), and the Health Manpower Act of 1968 (Piper, 1969) have contributed to the development of professional manpower.

As a result of increased federal financial support, training programs for food service personnel have been further developed in educational institutions such as high schools, vocational schools, junior and community colleges, and universities, in food service facilities such as restaurants and hospital dietary departments, and other organizations.

Training Programs Conducted by Educational Institutions

In high schools and vocational schools, training programs for developing waiters-waitresses, cooks, tray girls, and assistant supervisors were introduced into home economics and distributive education programs in addition to being a separate curriculum in food service trade (Mallory, 1966). Moss (1969) reported that more than 80 percent of formal food service training received by restaurant employees in 1967 was achieved in high schools and vocational schools. In home economics 21,363 students were trained as school lunch program directors, school lunchroom managers, and caterers. In food service trade schools, 30,718 students were trained as cooks (Moss, 1969). Augspurger (1965) reported an enrollment of 1,726,000 students in home economics in 1962. Home economics has been the largest federally supported vocational program in high schools.

A food service trade program, Food Education and Service Training--FEAST, was developed in California. The program included two years of work-study for junior and senior students in 14 district high schools. Students were taught the skills of food preparation and the basic fundamentals of administration (Anon, 1968).

From junior and community colleges, students have been earning associate degrees in food service. Moss (1969) indicated that in 85 junior and community colleges 6,900 students in 1967 were majoring in food service management. Several four-year universities such as Iowa State University also have developed a two-year food service supervisory training program (Mallory, 1966). At Michigan State University, a ten-week residence program involving additional work experience was offered

for supervisory training (Anon, 1964). Several junior colleges have designed programs for training hospital dietary technicians who assist therapeutic dietitians in tasks such as writing diets, initiating diet instructions, and calculating food intakes (Piper, 1969).

Training for professional food service personnel has been provided by approximately 350 colleges and universities in the United States (U. S. Dept. of Labor, 1968-1969). In 1966-1967, 733 students earned baccalaureate degrees with major study in Foods and Nutrition and 243 students with major study in Institution Management or Institution Administration. Master's degrees were earned by 121 students majoring in Foods and Nutrition and 22 students majoring in Institution Management. Twenty students received doctorate degrees in Foods and Nutrition and two students in Institution Management (Renetzky, 1969). In 1967-1968, 1,600 junior and senior college students were enrolled in dietetic curricula approved by the American Dietetic Association for meeting the academic requirements for dietetic internship eligibility (Piper, 1969).

To promote food service training programs, several universities have conducted workshops and research projects. In 1965 Michigan State University and Oklahoma State University conducted workshops to instruct teachers in developing instructional materials for food service occupations. At Iowa State University a research project titled "Basis for Vocation Education for Food Service Employees" was initiated (Mallory, 1966).

Training Programs Conducted by Food Service Facilities and Organizations

Stokes (1967) stated that food service facilities have recruited many employees from the unskilled labor force. Employment of inadequately trained personnel indicates that training programs should be conducted in food service facilities. However, the majority of food service managers surveyed in restaurants in a study conducted at Iowa State University did not perceive the necessity of training employees as an important part of managerial training (Raggs et al., 1969). Pope (1969) stated that since employment needs will always exceed the supply of graduates from vocational schools and colleges, the greatest contribution educational institutions can make is to train students to effectively train employees. In Pope's restaurant chain, a comprehensive training program was developed for all new employees. The training program included the following tests: (1) a screening test in which the requirements for employment were compared with an employee's qualifications, (2) a non-verbal intelligence test, (3) a test on material presented in the employee's handbook and sanitation booklet, and (4) an achievement test administered 20 days after an employee was hired (Pope, 1969).

In a study conducted by Iowa State University, 91 percent of the 79 hospital dietary departments surveyed provided training for employees. Most of the training was defined as an informal "hit-and-miss" on-the-job instruction. There was little evidence of preplanned training programs (Jolin et al., 1968).

The training needs of every dietary department differ depending upon the level of job proficiency of individual employees, size of the

dietary department, and the number of qualified personnel capable of developing and conducting training programs. According to Moore (1964), the lack of time and shortage of professional staff members have been primary reasons why training has been deficient in many dietary departments.

In larger dietary departments, training programs have been designed to meet the needs of personnel at all levels. At the Methodist Hospital in Indianapolis, Indiana, a comprehensive training program for food service personnel was conducted by a staff dietitian. The program included the following instructions: (1) orientation classes for newly hired employees consisting of five hours, (2) basic classes for all employees consisting of 16 hours annually, (3) classes in supervision for food service supervisors, and (4) departmental meetings and continued educational opportunities for dietitians (Gehring, 1964).

To further improve existing training programs, several hospital dietary departments have utilized audiovisual aids and programmed instructions as teaching methods (Moore, 1964, and Hartman, 1964). Audiovisual aids have improved the training of employees with little formal education (Moore, 1964).

In smaller dietary departments where training may have been deficient, training programs offered by various organizations have been utilized. Hartman (1965) described a program held in Maryland for training cooks that was taught by food specialists from the U. S. Department of Agriculture and commercial food companies. This annual eight-day program included instructions on personnel management, human relations, work

simplification, personal hygiene, food sanitation, nutrition, modified diets, care of equipment, food storage, cost control, and food preparation. This program has been successful since during the last five years 41 out of 118 students have received promotions within a year after completion of the course.

For several years public health agencies have conducted training programs for food service personnel. One training program included a food service supervisory course held in Georgia under the direction of the Georgia Department of Public Health (Wier, et al., 1960). This course included 370 hours of instruction in hospital orientation, ethics, food service administration, food purchasing, nutrition, menu planning, modified diets, food production, food service personnel management, training techniques, cost control records, sanitation, and the use and care of equipment. Upon completion of the course, students were awarded certificates in food service supervision.

Professional organizations also have designed food service training programs. Since 1962, the American Hospital Association has annually conducted an institute on training cook-managers and food service supervisors. Various state dietetic associations have conducted training programs. Members of the South Dakota Dietetic Association in cooperation with instructors from Presentation College in Aberdeen, South Dakota, conducted a noncredit training program for food service personnel at the college (Straudenraus et al., 1970). Instruction consisted of 48 hours for the first course and an additional 48 hours for the second course. Topics taught were menu planning, modified diets, departmental policies,

purchasing, sanitation, and personnel management. Students who completed the second course and received 36 hours of work experience under the supervision of a member of the American Dietetic Association were eligible for membership in the Hospital, Institution, and Educational Food Service Society. In the four years of classes, 116 students were enrolled with nine becoming members of the Hospital, Institution, and Educational Food Service Society.

The American Dietetic Association in cooperation with state dietetic associations has offered a correspondence course for training food service supervisors. Students were required to work full-time in food service positions while taking the one-year course. Since 1961 when the course began, 600 persons have completed the course. Over 400 persons were enrolled in 1969 (Zahasky, 1968).

Fifty-six hospitals, eight businesses, and one food clinic have been approved for conducting dietetic internship programs. Upon completion of an internship, students become members of the American Dietetic Association (U. S. Dept. of Labor, 1968-1969). The average annual increase in membership has been 650 members. Membership into the American Dietetic Association also can be achieved by working for three years in dietetics or related fields under the supervision of a dietitian who is a member (Anon, 1964).

Professional registration for dietitians became effective in June 1969. Registration encourages dietitians to continue their education by various methods. Continuing education is of utmost importance for the

individual, the profession, and the American Dietetic Association in order to curtail personal educational obsolescence (Shugart, 1969).

Even though the number of food service training programs has increased during the last decade through cooperative efforts of governmental, educational, and industrial organizations, several alternatives must be utilized simultaneously in solving the manpower problems. Moss (1969) recommended improving the job image of the food service industry in order to attract a greater supply of the total labor force into the industry. The job image could become more desirable by improving working conditions, increasing wages, promotional opportunities, employment entry requirements, and providing greater training opportunities. Piper et al. (1968) suggested that a "ladder of careers," consisting of definite job titles which have been equated with minimum educational requirements and levels of responsibility, should be developed in the immediate future. James (1967) suggested that training programs should be developed prerequisite to each other so that students could gradually climb the ladder of careers. Hubbard et al. (1968) stated that it is the responsibility of educators, practitioners, and researchers in dietetics to contribute to the solution of the manpower problem in food service.

III. FUTURE EMPLOYMENT NEEDS

In addition to over 3,112,600 individuals employed in the food service industry in 1966, annually for the next decade 250,000 employees will be required to fill positions in existing and newly created jobs.

Of the total 250,000 employees needed annually, 10 percent or 25,000 will be required for management or supervisory jobs; 16 percent or 40,000 will be required for technical or skilled jobs; 44 percent or 110,000 will be needed for non-technical or unskilled jobs requiring previous experience or training; and 30 percent or 75,000 employees will be needed for unskilled jobs without previous experience (Lattin, 1969).

In hospitals, the treatment of 25,027,000 patients in 6,876 hospitals in 1960 has increased to treatment of 29,361,000 patients in 7,172 hospitals in 1967 (U. S. Dept. of Commerce, 1969). As the population increases (O'Malley, 1969) and as comprehensive health care becomes available for more people (Piper et al., 1968), the number of hospitals will undoubtedly continue to grow.

In 1969 the American Dietetic Association reported over 20,000 members (Shugart, 1969) with 63 percent employed in hospitals (Zahasky, 1968). Medicare legislation has increased the demand for dietitians. Conditions for participation in Medicare by a hospital require that a dietary department must be directed by a qualified dietitian on full-time or consultant basis. In order for a dietitian to be qualified, she must be a member of the American Dietetic Association or have earned a baccalaureate degree with major study in Foods, Nutrition and/or Institution Management. Contract food service companies are required to employ a therapeutic dietitian on full-time or consultant basis (U. S. Dept. of HEW, 1966a). Conditions for participation in Medicare by an extended care facility require that one person must be designated by the administrator to have responsibility for the total dietary department.

If this person is not a qualified dietitian, regular scheduled services of a consultant dietitian are required (U. S. Dept. of HEW, 1966b).

Future manpower needs for dietitians in hospital dietary departments were estimated in a survey conducted by the University of Wisconsin in 1968. Other than federal hospitals, 7,303 dietitians were employed in short-term hospitals. By 1977, 17,922 dietitians will be needed (Hubbard et al., 1968). In these estimations, the number of dietitians needed in long-term hospitals, federal hospitals, public health agencies, educational institutions, and other food service facilities was not considered.

In 1962 a survey conducted by the American Dietetic Association noted that the 1,874 members who were unemployed were expected to enter professional employment in the future (Anon, 1964). Annually for the next ten years, only 800 college graduates have been predicted to enter internships. At this rate, current or future manpower needs for dietitians cannot be met (Hubbard et al., 1968).

Development of supportive personnel such as food service supervisors and dietary technicians to perform nonprofessional time-consuming tasks of dietitians should increase the efficiency of dietitians. The Tennessee Hospital Association found in their survey that an additional 91 food service supervisors will be needed in Tennessee hospitals by 1973 (Tennessee Hospital Association, 1970).

By 1980 approximately 4,250,000 food service employees will need training whether conducted in educational institutions or individual food service facilities (Lattin, 1969). Through effective utilization of

training programs, the food service industry will be better able to meet the demands of the rapidly growing market by increasing the supply of qualified personnel, by increasing productivity, and by reducing operational costs, especially labor turnover costs.

CHAPTER III

PROCEDURE

As a basis for development of state-wide training programs for food service personnel, a study was designed to investigate the training and employment needs for food service personnel in various food service facilities in Tennessee. The purpose of this study was to assess the present and future training and employment needs for food service personnel in selected hospital dietary departments in East Tennessee.

Several procedures were involved in this thesis: (1) selection of hospitals, (2) design of the study, and (3) collection and analysis of data.

I. SELECTION OF HOSPITALS

A stratified random selection of 20 hospitals was made from a population consisting of 41 licensed hospitals as listed in Clark's Directory of Southern Hospitals (Anon, 1969). Hospitals interviewed in the pilot study (Peay, 1969), hospitals containing fewer than 25 beds, and hospitals operated by federal agencies were eliminated from the population. Two divisions of hospitals based on size of bed capacities were used to reflect variation in the training and employment needs of food service personnel employed in dietary departments serving a small and a large number of patients. The two divisions were: (1) 25-100 beds,

and (2) 101 beds and over. Ten hospitals from each division were selected comprising 37 percent of the hospitals with small bed capacities and 71 percent of the hospitals with large bed capacities.

II. DESIGN OF THE STUDY

A pilot study (Peay, 1969) was conducted to test the methodology of this study. Questionnaires and personal interviews were utilized to obtain information from hospital administrators and heads of hospital dietary departments (titled food service managers in this thesis). In the pilot study, Questionnaire I, Appendix A, was mailed to administrators of 146 licensed hospitals in Tennessee. From the questionnaire, selected information necessary for screening the hospitals for selection of a sample was obtained. In this study, information obtained from this questionnaire was utilized.

Permission to conduct this study in the selected hospitals was received from the hospital administrators by telephone. Interviews with administrators and food service managers were scheduled.

One week prior to the interviews, food service managers were mailed Questionnaire II, Appendix B, concerning their evaluation of the skills and knowledge of food service personnel. If the questionnaires had not been fully completed, assistance by the interviewer was given to the food service managers during the interviews.

In the questionnaire, food service managers were instructed to review the tasks performed by food service personnel grouped into five job classifications: (1) managerial personnel, (2) supervisory personnel,

(3) food preparation workers, (4) food service workers, and (5) food sanitation workers. If the listing of tasks was incomplete, food service managers were asked to specify additional tasks. Additional tasks were not reported for the five job classifications.

After reviewing the tasks performed by the food service personnel, food service managers were instructed to indicate the following information about the skills and areas of knowledge for each job classification: (1) specify which skills and areas of knowledge should be the responsibility of the hospital for training food service personnel, should be the responsibility of outside agencies such as governmental and educational agencies, or should be a shared responsibility between the hospital and outside agencies, (2) specify the skills and areas of knowledge in which the hospital is currently training food service personnel, and (3) specify the skills and areas of knowledge which are the most important for food service personnel to effectively perform their jobs.

Questionnaire III, Appendix C, was completed by the interviewer during interviews with the hospital administrators and food service managers. Information was obtained concerning problems related to the employment of food service personnel, extent of food service training of food service personnel, and the hospitals' employment needs for food service personnel.

III. COLLECTION AND ANALYSIS OF DATA

Data were collected by utilization of questionnaires and personal interviews with administrators and food service managers in 20 hospitals in East Tennessee during February, 1970. Only one administrator was unable to schedule an interview; however, he supplied the necessary information by mail.

Data were analyzed by calculating the percent of the number of responses received from the administrators and food service managers. Results and discussion of results are presented in Chapter IV.

CHAPTER IV

RESULTS AND DISCUSSION

I. RESULTS

Characteristics of the Hospitals

In the 20 hospital dietary departments surveyed, 95 percent were operated by the hospitals. Contract food service companies operated the remaining 5 percent. The dietary department operated by a contract food service company existed in one hospital with a small bed capacity.

Sixty percent of the dietary departments served food to personnel and visitors in addition to patients, and 35 percent served only personnel. In the remaining 5 percent, personnel and visitors were served in a food service facility not operated by the hospital. Thirty percent of the dietary departments served personnel and/or visitors in cafeterias, 10 percent in snack shops, 15 percent in dining rooms with table service, 10 percent in cafeterias and snack shops, 5 percent in a cafeteria and coffee shop, 5 percent in a cafeteria, snack shop, and a soda fountain, and 5 percent in a cafeteria and a dining room with table service. The remaining 20 percent did not specify the type of food service facility provided for personnel and visitors.

Services of a consultant dietitian were utilized by 40 percent of the hospitals. In hospitals with small bed capacities, consultant dietitians were employed in 55 percent of the dietary departments which

did not employ a qualified dietitian.¹ In hospitals with large bed capacities, 40 percent of the dietary departments which did not employ a qualified dietitian utilized the services of a consultant dietitian.

Expansion of hospital facilities was planned in 80 percent of the hospitals. In all hospitals with small bed capacities, expansion was planned with an average of 45 additional beds planned for each hospital. Sixty percent of the hospitals with large bed capacities planned expansion with an average of 94 additional beds planned for each hospital.

Operation of nursing homes or extended-care facilities was provided by 20 percent of the hospitals. Ten percent of the hospitals with small bed capacities and 30 percent of the hospitals with large bed capacities operated them.

Problems Related to Food Service Personnel

Answers to the open-end question concerning problems related to food service personnel are grouped into general categories in Table 7, Appendix D. The majority of administrators indicated that food service personnel were inadequately trained.

In hospitals with small bed capacities, 50 percent of the administrators expressed the problem that their food service personnel were inadequately trained with food service managers (these persons were qualified dietitians in only 10 percent of the dietary departments)

¹A qualified dietitian is a person who is a member of the American Dietetic Association or who has earned a baccalaureate degree with major study in Nutrition, Foods, or Institution Administration (U. S. Dept. of HEW, 1966b).

needing more knowledge in nutrition and food service management. Food preparation workers were mentioned as needing more training in food preparation for modified diets. Lack of responsibility and dependability of food service personnel below supervisory level was mentioned. Twenty percent of the administrators reported a shortage of food service personnel with a specific need existing for consultant dietitians.

Only 20 percent of the administrators in hospitals with small bed capacities reported a high labor turnover rate occurring with food service personnel. Factors mentioned as affecting food service employment were low wages, few promotional opportunities, unstable employment of women influenced by marriages and pregnancies, and unstable employment of older personnel influenced by retirement and sickness.

In hospitals with large bed capacities, 60 percent of the administrators indicated that their food service personnel were inadequately trained. Food service managers (these persons were qualified dietitians in 50 percent of the dietary departments) needed more knowledge in nutrition, food service management, and also human relations. Lack of responsibility and dependability of food service personnel below supervisory level was noted. Fifty percent of the administrators stated that a shortage of food service personnel existed with a specific need existing for dietitians, supervisors, and food sanitation workers. High labor turnover occurring with food service personnel was mentioned by 50 percent of the administrators. Factors mentioned as affecting food service employment were low wages, low job prestige, few promotional opportunities, and racial integration problems.

Qualifications Desired for Food Service Managers

Answers to the open-end question concerning qualifications desired for food service managers by the administrators are listed in Table 8, Appendix D. The majority of administrators specified knowledge in nutrition and food service management as being desirable qualifications. Other desirable skills and areas of knowledge mentioned were human relations, personnel administration, supervision, cost control, leadership, and food preparation and service.

In hospitals with small bed capacities, 30 percent of the administrators desired food service managers to be members of the American Dietetic Association;² whereas 20 percent desired only high school graduates, and 30 percent primarily desired food service managers to have previous work experience in food service at the supervisory level. In hospitals with large bed capacities, 30 percent of the administrators desired food service managers to be members of the American Dietetic Association, 40 percent desired them to have earned baccalaureate degrees with major study in Nutrition, Foods, and/or Institution Administration, and 20 percent desired them to have enrolled in college courses in Nutrition, Foods, and/or Institution Administration. Ten percent primarily desired food service managers to have previous work experience in food service supervision.

²A member of the American Dietetic Association has earned a baccalaureate degree from an accredited college or university with concentrated study in Nutrition, Foods, and Institution Administration and has completed a dietetic internship approved by the American Dietetic Association (The American Dietetic Association, 1968).

Personal attributes of food service managers most often were mentioned as being desirable qualifications by the administrators in hospitals with large bed capacities than administrators in hospitals with small bed capacities.

Educational Qualifications of Food Service Managers

Only 30 percent of the food service managers had earned baccalaureate degrees with 15 percent having membership in the American Dietetic Association (Table 10, Appendix D). The college graduates who were not members of the American Dietetic Association had earned baccalaureate degrees with major study in Nutrition or Home Economics Education. Food service managers in hospitals with large bed capacities more often were college graduates than managers in hospitals with small bed capacities. Ten percent of the food service managers were not high school graduates.

Eighty percent of the food service managers reported having formal training in food service prior to current employment. Thirty percent were trained in food service by earning baccalaureate degrees with major study in Nutrition, Foods, Institution Administration, or Home Economics Education, 25 percent by taking home economics in high school, 10 percent by taking college courses related to food service, 10 percent by enrolling in food service supervisory courses, and 5 percent by attending adult education programs.

Seventy percent of the food service managers in hospitals with small bed capacities and 50 percent in hospitals with large bed capacities

had received at least five years work experience prior to current employment (Table 11, Appendix D). Fifty percent of the food service managers in hospitals with small bed capacities had been employed in their hospitals for at least five years with 40 percent being in charge of their dietary departments since their initial employment. In hospitals with large bed capacities, 70 percent of the food service managers had been employed in their hospitals for at least five years with 60 percent being in charge of their dietary departments since their initial employment.

Existence of Food Service Training Programs and Extent of Food Service Personnel Participation

Food service managers. Sixty-five percent of the food service managers had participated in food service training programs in the last two years. Fifty-five percent had enrolled in workshops, 20 percent had attended professional or trade conventions, 10 percent had taken college courses, and 5 percent had participated in adult education programs (Table 12, Appendix D). Thirty percent had utilized hospital sponsored training programs including 25 percent who had taken the supervisory course offered by the American Dietetic Association.

In hospitals with small bed capacities, 50 percent of the food service managers had enrolled in training programs with 40 percent having participated in workshops. Thirty percent (or 33 percent out of 90 percent who were not qualified dietitians) had taken the supervisory course offered by the American Dietetic Association. In hospitals with large bed capacities, 80 percent of the food service managers had

participated in training programs. Seventy percent had enrolled in workshops, and 40 percent had attended professional or trade conventions. Twenty percent (or 40 percent out of the 50 percent who were not qualified dietitians) had taken the supervisory course offered by the American Dietetic Association.

The majority of food service managers considered workshops and the supervisory course offered by the American Dietetic Association as the most helpful training programs.

Other food service personnel. The extent of participation in food service training programs by other food service personnel was estimated by the food service managers. An average of 5 percent of the food service personnel employed in the 20 hospitals surveyed was estimated as having participated in food service training programs prior to current employment. Participation in food service training programs conducted outside the hospitals in the last two years was achieved by an average of 7 percent of the food service personnel.

In hospitals with small bed capacities, an average of 7 percent of the food service personnel had food service training prior to current employment, and an average of 5 percent had participated in food service training programs conducted outside the hospitals in the last two years. In hospitals with large bed capacities, an average of 2 percent had food service training prior to current employment, and an average of 9 percent had participated in food service training programs conducted outside the hospitals. In one hospital with a large bed capacity, the

food service manager reported that 81 percent of the food service personnel had participated in training programs.

In hospitals with small bed capacities, one food preparation worker had participated in a vocation education program, and one food service worker had participated in a workshop. In hospitals with large bed capacities, three supervisors had taken the supervisory course offered by the American Dietetic Association. Five food preparation workers had attended workshops, and two food preparation workers had taken correspondence courses in quantity cookery. Workshops were attended by six food service workers and by 16 food sanitation workers.

The percentage of hospitals conducting training programs for food service personnel is presented in Table 1. Formal training was defined as a preplanned sequence of experiences designed to increase the skills and knowledge of the trainees. Types of training programs were determined. The content, concentration, and teaching methods were not investigated.

In the 20 hospitals surveyed, supervised on-the-job instruction was given to food service personnel. In hospitals with small bed capacities, classroom education lectures were conducted by 60 percent of the hospitals. In addition to supervised on-the-job instruction, all hospitals with large bed capacities conducted orientation classes for new food service employees, and 90 percent conducted classroom education lectures.

Food service managers conducted the majority of food service training programs (Table 13, Appendix D). Food service managers in

TABLE 1
FOOD SERVICE TRAINING PROGRAMS IN HOSPITALS

Training Programs	Percent of Hospitals Hospitals with Bed Capacities		
	A ^a	B ^b	Average ^c
Indoctrination	30	80	55
Orientation	40	100	70
Supervised On-the-Job Instruction	100	100	100
Classroom Education Lecture	60	90	75

^aA = Ten hospitals with bed capacities between 25-100 beds, comprising 37 percent of the population.

^bB = Ten hospitals with bed capacities of 101 beds and over, comprising 71 percent of the population.

^cPercent of the 20 hospitals.

hospitals with large bed capacities more often were assisted in conducting training programs by other food service personnel than the food service managers in hospitals with small bed capacities.

Evaluation of Managerial Training by Food Service Managers

Less than 55 percent of the hospitals provided training for food service managers in any one skill or area of knowledge (Table 2). In the opinion of the majority of food service managers, managerial training was not considered a major responsibility of hospitals. Managerial training should be a responsibility shared between hospitals and outside agencies such as governmental and educational agencies.

TABLE 2
EVALUATION OF MANAGERIAL TRAINING BY
FOOD SERVICE MANAGERS^a

Skill or Knowledge	Important Skills	Training Conducted in Hospitals	Training Responsibility		
			Hospital	Outside Agency	Shared
Human Relations	55	40	10	5	85
Communications	35	40	15	10	75
Management Principles	65	40	10	55	35
Record Keeping	40	25	40	30	30
Food Procurement	95	45	20	50	30
Layout and Design of Equipment and Plant	0	10	40	20	40
Human Nutrition and Food Science	85	50	5	65	30
Quantity Food Preparation and Service	65	45	10	40	55
Menu Planning	100	40	25	50	25
Personnel Administration	35	30	40	30	30
Use and Care of Equipment	35	35	10	35	55
Specific Information Regarding Types of Feeding Requirements	15	25	40	30	30

^aPercent of the number of responses from 20 food service managers.

All food service managers agreed that menu planning was an important skill in effectively performing managerial tasks. Other skills and areas of knowledge considered important were food procurement, human nutrition and food science, management principles, quantity food preparation and service, and human relations. None of the food service managers considered layout and design of equipment and plant as an important area of knowledge. Eighty-five percent of the food service managers specified human relations, and 75 percent specified communications as areas of knowledge which should be training responsibilities shared between hospitals and outside agencies.

Evaluation of Training Food Service Supervisors by Food Service Managers

Seventy-five percent of the hospitals provided training for food service supervisors in principles of nutrition and diet therapy (Table 3). Other skills or areas of knowledge most often taught were human relations, principles of quantity food preparation and service, communications, sanitary and safety standards, and the use and care of equipment. The majority of food service managers did not consider the training of food service supervisors as a major responsibility of hospitals. Training should be a responsibility shared between hospitals and outside agencies.

Principles of quantity food preparation and service were considered important areas of knowledge for food service supervisors in effectively performing their tasks by 95 percent of the food service managers. Other important skills or areas of knowledge indicated were human relations, principles of nutrition and diet therapy, sanitary and

TABLE 3

EVALUATION OF TRAINING FOOD SERVICE SUPERVISORS BY
FOOD SERVICE MANAGERS^a

Skill or Knowledge	Important Skills	Training Conducted in Hospitals	Training Responsibility		
			Hospital	Outside Agency	Shared
Human Relations	75	65	10	20	70
Communications	55	60	10	15	75
Use and Care of Equipment	45	55	20	35	45
Menu Terminology	35	50	20	40	40
Principles of Nutrition and Diet Therapy	70	75	10	45	45
Sanitary and Safety Standards	65	60	30	35	35
Mathematics as Related to Cost Control	20	50	20	65	15
Principles and Standards of Quantity Food Preparation and Service	95	65	5	45	50
Effective Use of Non-supervisory Personnel	60	50	15	45	40

^aPercent of the number of responses from 20 food service managers.

safety standards, communications, and the effective use of non-supervisory personnel. Seventy-five percent of the food service managers specified communications, and 70 percent specified human relations as areas of knowledge which should be a shared training responsibility between hospitals and outside agencies,

Evaluation of Training Food Preparation Workers by Food Service Managers

The majority of the hospitals provided training for food preparation workers in skills and areas of knowledge such as sanitation and personal hygiene, food preparation for modified diets, safety, use and care of equipment, proper food handling and storage, principles of quantity food preparation and service, use of standardized recipes, and menu terminology (Table 4). Even though the majority of hospitals provided training for food preparation workers, the majority of food service managers did not consider the training of food preparation workers as a major responsibility of hospitals. Training should be a responsibility shared between hospitals and outside agencies.

Eighty-five percent of the food service managers considered sanitation and personal hygiene, principles of quantity food preparation and service, and proper food handling and storage as important skills and areas of knowledge for food preparation workers. Use of standardized recipes and the use and care of equipment also were considered important skills.

TABLE 4

EVALUATION OF TRAINING FOOD PREPARATION WORKERS
BY FOOD SERVICE MANAGERS^a

Skill or Knowledge	Important Skills	Training Conducted in Hospitals	Training Responsibility		
			Hospital	Outside Agency	Shared
Human Relations	25	45	40	10	50
Communications	35	45	30	15	55
Sanitation and Personal Hygiene	85	80	25	40	35
Menu Terminology	30	55	40	35	25
Principles of Nutrition as Related to Food Preparation	50	50	15	50	35
Use of Standardized Recipes	75	55	15	55	30
Principles of Quantity Food Preparation and Service and Their Application	85	65	20	35	50
Food Preparation for Modified Diets	45	75	25	20	55
Quality Standards for Food	50	50	25	35	40
Proper Food Handling and Storage	85	65	20	40	40
Use and Care of Equipment	55	65	50	20	30
Safety	50	70	50	20	30
Basic Mathematics	30	30	25	55	20
Work Simplification	10	50	30	20	50
Chief Cook Must Have Knowledge of Supervisory Techniques	20	40	25	30	45

^aPercent of the number of responses from 20 food service managers.

Evaluation of Training Food Service Workers by Food Service Managers

The majority of hospitals provided training for food service workers in all skills and areas of knowledge listed (Table 5). Sanitation and personal hygiene were reported as being taught in 85 percent of the hospitals. Training food service workers was considered a major responsibility of hospitals.

Sanitation and personal hygiene were considered important areas of knowledge for food service workers. Other skills and areas of knowledge specified included a limited knowledge of food preparation, food display and service, and safety.

Evaluation of Training Food Sanitation Workers by Food Service Managers

The majority of hospitals provided training for food sanitation workers in all skills and areas of knowledge listed (Table 6). Training food sanitation workers was considered a major responsibility of hospitals.

One-hundred percent of the food service managers specified sanitation and personal hygiene 80 percent specified safety, and 65 percent specified the use and care of equipment as important skills and areas of knowledge for food sanitation workers.

Employment Needs of Food Service Personnel

Present employment needs. Employment of food service personnel totaled 469 personnel in the 20 hospitals surveyed. In hospitals with small bed capacities, 116 food service personnel were employed with 91

TABLE 5
EVALUATION OF TRAINING FOOD SERVICE WORKERS
BY FOOD SERVICE MANAGERS^a

Skill or Knowledge	Important Skills	Training Conducted in Hospitals	Training Responsibility		
			Hospital	Outside Agency	Shared
Human Relations	45	60	40	10	50
Communications	35	55	40	15	45
Sanitation and Personal Hygiene	85	85	45	20	35
Safety	55	70	45	20	35
Food Display and Service	55	65	35	25	40
Quality Standards for Food	45	65	35	20	45
Use and Care of Equipment	50	65	55	15	30
Menu Terminology	30	60	55	35	10
Limited Knowledge of Food Preparation	60	65	30	40	30
Limited Knowledge of Modified Diets	45	70	45	30	25
Work Simplification	20	60	45	30	25

^aPercent of the number of responses from 20 food service managers.

TABLE 6
EVALUATION OF TRAINING FOOD SANITATION WORKERS
BY FOOD SERVICE MANAGERS^a

Skill or Knowledge	Important Skills	Training Conducted in Hospitals	Training Responsibility		
			Hospital	Outside Agency	Shared
Human Relations	45	70	35	5	60
Communications	30	60	40	5	55
Sanitation and Personal Hygiene	100	85	40	20	40
Safety	80	85	55	20	25
Use and Care of Equipment	65	85	45	20	35
Work Simplification	35	75	45	30	30

^aPercent of the number of responses from 20 food service managers.

percent as full-time employees. In hospitals with large bed capacities, 353 food service personnel were employed with 86 percent consisting of full-time employees.

The percentage distribution of food service personnel divided into five job classifications was as follows: (1) managerial personnel, 6.5 percent, (2) supervisory personnel, 6.5 percent, (3) food preparation workers, 31.5 percent, (4) food service workers, 31.5 percent, and (5) food sanitation workers, 23.0 percent. The remaining 1 percent consisted of clerical workers who were employed in the dietary departments but were not considered food service personnel.

The percentage distribution of food service personnel employed in hospitals with small and large bed capacities is presented in Figure 1. Food preparation and food service workers comprised 69 percent of the food service personnel employed in hospitals with small bed capacities. Food service and food sanitation workers employed in hospitals with large bed capacities comprised 64 percent of the food service personnel.

Vacancies in food service positions were indicated by the food service managers. In the 20 dietary departments surveyed, a total of eight positions were unfilled. In hospitals with small bed capacity, food service managers reported only one vacancy for a food preparation worker. Food service managers in hospitals with large bed capacities reported four vacancies for managerial personnel, two for food service workers, and one for a food sanitation worker.

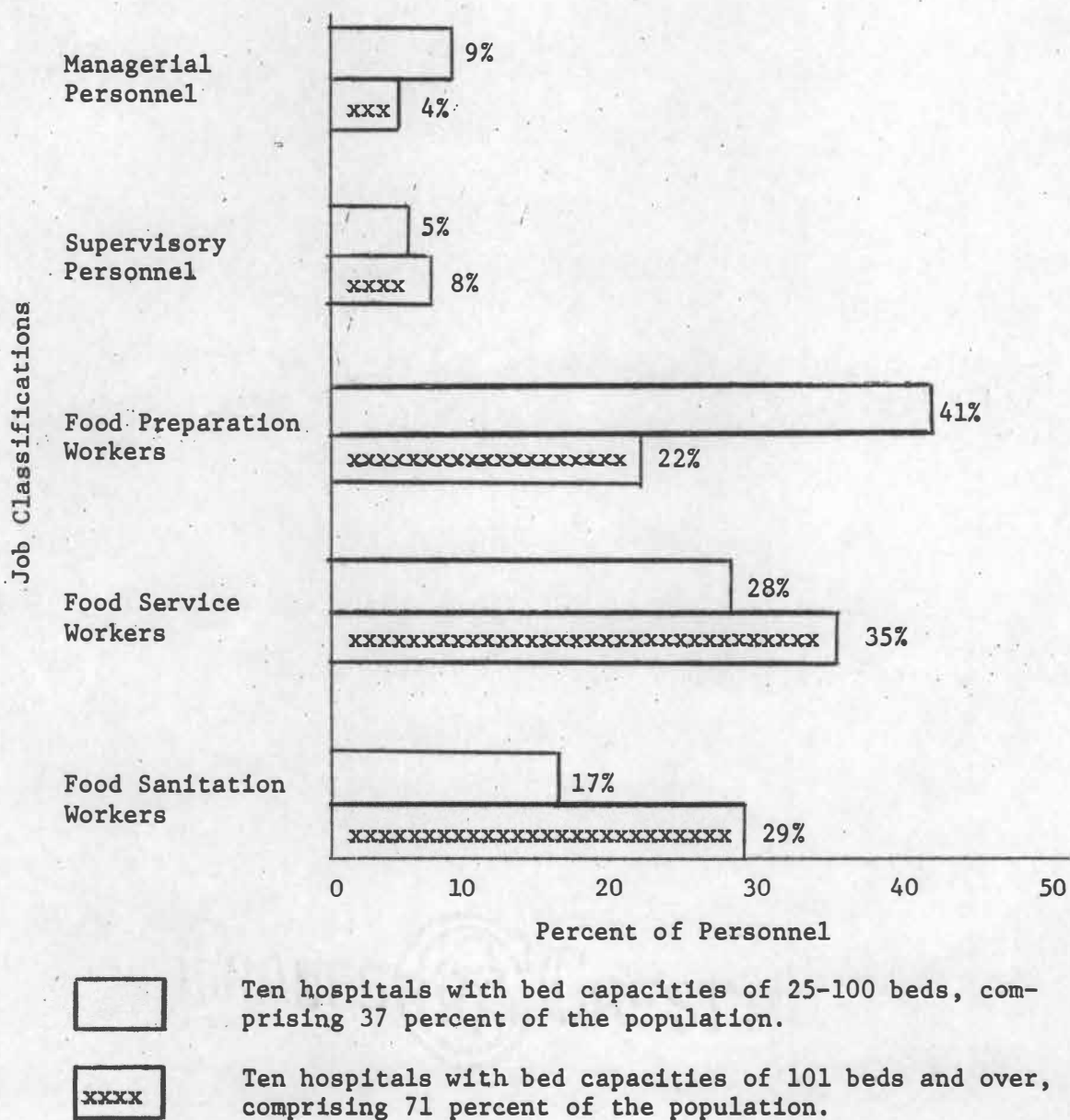


FIGURE 1

PERCENTAGE DISTRIBUTION OF FOOD SERVICE PERSONNEL

Future employment needs. Sixteen of the 20 food service managers reported that new job positions for food service personnel would be created in the next five years. Only four of the 16 food service managers could estimate the number of new positions to be created. In the 20 dietary departments surveyed, 21 new positions were estimated. In hospitals with small bed capacities, positions for one managerial personnel, six food preparation workers, four food service workers, and three food sanitation workers were estimated. In hospitals with large bed capacities, one managerial personnel, two supervisory personnel, two food preparation workers, and two food service workers will be needed in the next five years.

Expansion of hospital facilities was given as a reason for creating new positions for food service personnel by 70 percent of the food service managers. Ten percent of the food service managers indicated a need to more efficiently operate their dietary departments.

Labor turnover. The average annual labor turnover rate for the 20 dietary departments surveyed was 18 percent. In hospitals with small bed capacities, annual labor turnover rates for food service personnel ranged from 0 to 20 percent for individual hospitals with an average rate of 6 percent. If the food service managers did not know the annual labor turnover rate but could supply the necessary information, the interviewer calculated the labor turnover rate from the following formula:

$$\text{Labor Turnover Rate} = \frac{\text{Total separations for a given period of time} \times 100}{\text{Average number of personnel on the payroll during a given period of time}}$$

Ten percent of the food service managers in hospitals with small bed capacities could not supply the necessary information. In hospitals with large bed capacities, the annual labor turnover rates for food service personnel ranged from 0 to 132 percent with an average rate of 29 percent.

Fifty percent of the food service managers in hospitals with small bed capacities indicated that the greatest labor turnover occurred with food preparation workers (Table 9, Appendix D). Seventy percent reported that vacancies for food preparation workers were the most difficult to fill. Reasons given to the open-end question as to why this particular job classification was the most difficult to fill were: (1) shortage of qualified manpower, (2) low wages, and (3) great amount of responsibility required for the job.

Sixty percent of the food service managers in hospitals with large bed capacities considered food sanitation workers as having the greatest labor turnover (Table 9, Appendix D). Concerning the most difficult position to fill, 30 percent reported food preparation workers, and 30 percent reported food service workers. Reasons given for difficulty in filling positions in the food preparation classification were: (1) shortage of qualified manpower, (2) low wages, and (3) low job prestige. Difficulty in filling positions for food service workers was attributed to the great amount of responsibility and training required to perform tasks related to patient tray service.

II. DISCUSSION

A shortage of adequately trained food service personnel existed in the 20 hospital dietary departments surveyed in East Tennessee. Employment of food service personnel totaled 469 employees with eight vacant positions. Future employment needs were not determined since only four of the 16 food service managers employed in the hospitals planning expansion of facilities could estimate the number of future positions needed.

Training Needs

The majority of administrators considered the shortage of adequately trained personnel as the major problem related to food service personnel. Thirty percent of the food service managers had earned baccalaureate degrees including 15 percent who were members of the American Dietetic Association. In a study conducted by the American Dietetic Association and the American Hospital Association in 1963, 57 percent of the food service managers employed in 3,838 hospitals in the United States had earned baccalaureate degrees including 47 who were members of the American Dietetic Association (Anon, 1964). In the selected hospitals in East Tennessee, the employment of college graduates and members of the American Dietetic Association as food service managers was substantially lower than employment of these persons in the study by the American Dietetic Association.

Qualifications desired for food service managers by the administrators included membership in the American Dietetic Association or a

baccalaureate degree with major study in Nutrition, Foods, and/or Institution Administration, and previous work experience in food service supervision. Competency in food service management, nutrition, and human relations were emphasized. These qualifications mentioned are similar to the qualifications desired for dietitians by one administrator as reported by Ross (1967). Qualifications desired for dietitians were: (1) technical competency in management and therapeutics, (2) ability to effectively manage people, (3) ability to solve problems, and (4) ability to sell ideas.

The majority of food service managers have participated in food service training programs. Eighty percent had training in food service prior to current employment. In a study conducted at Iowa State University to assess the training needs of food service personnel employed in Iowa hospitals, 88 percent of the food service managers had experience or training in food service prior to current employment (Jolin et al., 1968). In the last two years, 65 percent of the food service managers interviewed in this study had training in food service. Twenty-five percent out of the 70 percent who were not qualified dietitians had completed the supervisory course offered by the American Dietetic Association.

Participation in food service training programs by food service personnel other than food service managers was low. Only 5 percent of the food service personnel had training in food service prior to current employment. In the last two years, 7 percent had participated in food service training programs.

Training programs conducted in the hospitals for food service personnel was reported by all the 20 hospitals surveyed. In the Iowa State University study, 91 percent of the hospitals conducted training programs for food service personnel (Jolin et al., 1968). The content and concentration of training programs were not determined in this study. In the Iowa State University study, most of the training programs were defined as an informal "hit-and-miss" on-the-job instruction. There was little evidence of preplanned training programs.

In the evaluation of the training needs of food service personnel, food service managers considered the training of managerial personnel, supervisory personnel, and food preparation workers to be a responsibility shared between hospitals and other agencies. Training of food service and food sanitation workers was considered a major responsibility of the hospitals. These findings have implications that hospitals should provide some degree of training for all levels of food service personnel.

Supervised on-the-job instruction was conducted in 100 percent of the hospitals and classroom education lectures were given in 75 percent (Table 1, page 34). Since food service managers and food service supervisors most frequently conducted training programs for food service personnel in the hospitals (Table 13, Appendix D), the training of managerial and supervisory personnel should include instruction in developing their ability to train their employees.

Employment Needs

Administrators in hospitals with large bed capacities frequently mentioned the problem of high labor turnover occurring with food service

personnel. The average annual labor turnover rate for food service personnel in the 20 hospitals surveyed was 18 percent. Rates ranged from 0 to 132 percent. In a study conducted in 17 dietary departments by Pelto et al., (1965), annual labor turnover rates ranged from 8 to 65 percent. Compared with the study by Pelto, labor turnover rates for the individual hospitals surveyed in this study were higher. However, a labor turnover rate of 132 percent existed in only one dietary department; whereas in five dietary departments a rate of 0 percent existed.

A total of 469 food service personnel were employed in the 20 hospitals. Eight positions were vacant including four dietitians, one food preparation worker, two food service workers, and one food sanitation worker. Future employment needs were not determined since only four of the 16 food service managers employed in the hospitals planning expansion could estimate the number of future positions.

CHAPTER V

SUMMARY

Administrators and food service managers were interviewed in 20 randomly selected hospitals in East Tennessee. Training and employment needs of food service personnel employed in hospital dietary departments were studied.

Selected characteristics of the hospitals indicated that 95 percent of the dietary departments were operated by the hospitals; whereas 5 percent were operated by contract food service companies. Thirty percent of the dietary departments were managed by qualified dietitians, and 40 percent utilized the services of consultant dietitians.

I. TRAINING NEEDS

Administrators considered the shortage of adequately trained personnel as the major problem related to food service personnel. Administrators in hospitals with large bed capacities frequently mentioned a high labor turnover of food service personnel.

Qualifications desired for food service managers by the administrators included membership in the American Dietetic Association, or a baccalaureate degree with major study in Nutrition, Foods, or Institution Administration, and previous work experience in food service supervision. Technical competency in food service management, nutrition, and human relations also were mentioned.

Educational qualifications of food service managers included 30 percent having baccalaureate degrees with major study in Nutrition, Foods, Institution Administration, or Home Economics Education. Fifteen percent were members of the American Dietetic Association. Ten percent were not high school graduates.

Eighty percent of the food service managers and 5 percent of other food service personnel had training in food service prior to current employment. In the last two years, 65 percent of the food service managers and 7 percent of other food service personnel had participated in food service training programs.

Food service managers evaluated the training needs of food service personnel. Forty-five percent of the food service managers specified food sanitation workers as having the greatest labor turnover; whereas 50 percent specified food preparation workers as the most difficult positions to fill.

Less than 55 percent of the hospitals provided training in any one skill or area of knowledge listed for food service managers. Food service managers considered managerial training a responsibility to be shared between hospitals and outside agencies. Menu planning, food procurement, and human nutrition and food science were considered important skills and areas of knowledge for food service managers to effectively perform their tasks.

The majority of hospitals provided training for food service supervisors. Training of food service supervisors was considered by the food service managers to be a responsibility shared between hospitals and

outside agencies. Skills and areas of knowledge important for food service supervisors in effectively performing their tasks included principles of quantity food preparation and service, human relations, and principles of nutrition and diet therapy.

For food preparation workers, the majority of hospitals provided training. However, food service managers considered the training of food preparation workers a responsibility to be shared between hospitals and outside agencies. Sanitation and personal hygiene, principles of quantity food preparation and service, and proper food handling and storage were specified as important skills and areas of knowledge.

The majority of hospitals provided training for food service and food sanitation workers. Food service managers considered the training of these employees as a major responsibility of hospitals. A knowledge in sanitation and personal hygiene was considered important for food service and food sanitation workers in effectively performing their tasks.

II. EMPLOYMENT NEEDS

In the 20 hospitals surveyed, 469 food service personnel were employed. The percentage distribution of personnel in the five job classifications was: (1) managerial personnel, 6.5 percent, (2) supervisory personnel, 6.5 percent, (3) food preparation workers, 31.5 percent, (4) food service workers, 31.5 percent, and (5) food sanitation workers, 23.0 percent.

The average annual labor turnover rate for food service personnel in the 20 hospitals was 18 percent. Labor turnover rates ranged from 0 to 132 percent in the individual hospitals.

Present employment needs consisted of eight vacancies including four dietitians, one food preparation worker, two food service workers, and one food sanitation worker. Future employment needs were not determined since only four of the 16 food service managers employed in hospitals planning expansion could estimate the number of future positions.



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APPENDIXES

APPENDIX A

DEPARTMENT OF FOOD SCIENCE AND INSTITUTION ADMINISTRATION
THE UNIVERSITY OF TENNESSEE, KNOXVILLE

SURVEY OF HOSPITAL FOOD SERVICE DEPARTMENTS
QUESTIONNAIRE I. TO HOSPITAL ADMINISTRATORS

Please check and/or answer each item in the space indicated:

1. Hospital Name _____
2. Address _____
3. Number of beds _____
4. Is your food service department operated by:
(a) the hospital _____ (b) contract food service _____
5. What groups other than patients are served meals by the food service department:
(a) personnel _____ (b) visitors _____ (c) none _____
6. If you serve groups other than patients do you operate a:
(a) cafeteria _____ (b) coffee shop _____ (c) snack shop _____ (d) dining room with table service _____ (e) soda fountain _____ (f) other (specify) _____
7. Are you planning an expansion program within the next five years:
(a) yes _____ (b) no _____
8. If yes, how many additional beds _____

APPENDIX B

II. Code _____

DEPARTMENT OF FOOD SCIENCE AND INSTITUTION ADMINISTRATION
THE UNIVERSITY OF TENNESSEE, KNOXVILLE

SURVEY OF HOSPITAL FOOD SERVICE PERSONNEL
QUESTIONNAIRE II. TO FOOD SERVICE MANAGERS

HOSPITAL NAME _____

LOCATION _____
(Street Address) (City)

The tasks, skills, and knowledge of food service personnel are divided into five job classifications:

1. Managerial: dietitians, food service managers
2. Supervisory: food service supervisors for both food preparation and service
3. Food Preparation Workers: cooks, bakers, salad preparation workers, and helpers
4. Food Service Workers: waitresses, tray girls, counter attendants or cafeteria aides, and related positions
5. Food Sanitation Workers: dish washers, pot and pan washers, and porters

If an employee performs tasks which are included in more than one job classification, he will be included in the classification in which the greater part of his duties fall (60%).

Training will be considered to be any type of preplanned sequence of experiences designed to increase the skills and knowledge of the employees.

Please, read the tasks, skills, and knowledge required of personnel in each job classification. Complete the following instructions.

1. If you think additional tasks are required in any job classification, write them at the bottom of the list.

2. On the left side of the skills and knowledge list, indicate with an H the areas in which you think training should be a hospital responsibility; with an O the areas in which you think training should be another agency responsibility, or with an S for those areas in which you think training should be a shared or mutual responsibility between hospitals and other agencies.
3. On the right side of the skills and knowledge list, check the areas in which food service personnel have been trained in this hospital food service.
4. In the skills and knowledge list, circle the areas in which you think are the most important for food service personnel in the various job classifications to know.
5. If you have personal comments to make about this questionnaire, please write them on this page.

Please answer the following question.

What is the number of employees in the following job classifications who have participated in the specific types of training programs in the last two years not conducted in this food service?

	Adult Edu- cation Courses	Vocation Education Courses	Work- shops	Profession or Trade Con- ventions	College Courses	Other (specify)
Managerial (not interviewee)						
Supervisory						
Food Prepa- ration Workers						
Food Service Workers						
Food Sanitation Workers						

JOB CLASSIFICATION	GENERAL TASKS	SPECIFIC TASKS	SKILL AND KNOWLEDGE	
Managerial:			Mark <u>H</u> , <u>O</u> , or <u>S</u>	Check (✓) if hos- pital trains
Dietitians, Food Service Managers (Continued)		May instruct groups or individuals in nutrition or diet selection.	<u>Use and Care of Equipment</u>	—
		May write for technical journals or prepare edu- cational material on food and proper nutrition.	<u>May need infor- mation regarding specific types of feeding requirements, such as hospitals, stu- dents, aged, etc.</u>	—

JOB CLASSIFICATION	GENERAL TASKS	SPECIFIC TASKS	SKILLS AND KNOWLEDGE	
Supervisory:	Uses independent judgment to direct activities of subordinate personnel in such a way that plans, policies, and directions of management are carried out.	Supervises employees in food service department, in food production, and service, and in maintaining cleanliness of department and equipment.	Mark <u>H</u> , <u>0</u> , or <u>S</u> .	Check (✓) if hos- pital trains
Food Service Supervisors for both food prepa- ration and service		"Instructs workers in methods of performing duties, and assigns and coordinates work of employees to promote efficiency of operations." ¹	<u>Menu Terminology</u>	—
			<u>Principles of Nutrition and Diet Therapy</u>	—
			<u>Use and Care of Equipment</u>	—
			<u>Human Relation</u>	—
			<u>Communications</u>	—
			<u>Sanitary and Safety Standards</u>	—
		Keeps and maintains records as directed by management such as meals served, food cost, usage level of food and supplies.	<u>Mathematics as Related to Cost Control</u>	—
			<u>Principles and Standards of Quantity Food Service and Preparation</u>	—
		May supervise service of trays to hospital patients and assist in planning modified diets.		

¹U. S. Dept. of Labor. 1965, "Dictionary of Occupational Titles." Vol. I, 3rd Ed. p. 294.
U. S. Government Printing Office, Washington, D. C.

JOB CLASSIFICATION	GENERAL TASKS	SPECIFIC TASKS	SKILLS AND KNOWLEDGE	
Supervisory:			Mark <u>H</u> , <u>O</u> , or <u>S</u>	Check (✓) if hos- pital trains
Food Service Supervisors for both food prepa- ration and service (Continued)		May assist manage- ment in purchasing and procurement of food and supplies, cost accounting, evaluating and training employees, and planning for change.	<u>Effective</u> Use of Non- supervisory Personnel	—

JOB CLASSIFICATION	GENERAL TASKS	SPECIFIC TASKS	SKILLS AND KNOWLEDGE	
Food Preparation Workers:	Performs operations necessary to convert raw food to product ready for distribution and service.	Chief cook directs and supervises per- formance of staff cooks and helpers.	Mark <u>H</u> , <u>O</u> , or <u>S</u>	Check (✓) if hos- pital trains
Cooks, Bakers, Salad Preparation Workers and Helpers		Follows production schedule by perform- ing preliminary processes of pre- paring food to be cooked such as wash- ing, dicing, peeling, slicing, etc., weigh- ing or measuring food if necessary. ²	<u>Human Relations</u>	—
			<u>Communi- cations</u>	—
			<u>Sanitation and Personnel Hygiene</u>	—
			<u>Menu Terminology</u>	—
		Combines food items according to pre- scribed recipe. Cooks food by appropriate method following specified procedure. ³	<u>Principles of Nutrition, as Related to Food Preparation</u>	—
			<u>Use of Stan- dardized Recipes</u>	—
		Prepares food for service by slicing, portioning, panning, garnishing, etc. ⁴	<u>Principles of Quantity Prepa- ration and Service and Ability to Apply Them.</u>	—

²U. S. Dept. of Health, Education and Welfare. 1961. "Food Service Industry, Training Programs and Facilities." Vocational Div. Bull. 298, p. 12; U. S. Government Printing Office, Washington, D. C.

³Ibid.

⁴Ibid.

JOB
CLASSIFICATION

GENERAL TASKS

SPECIFIC TASKS

SKILLS AND
KNOWLEDGE

Food Preparation
Workers.

Evaluates product.

Mark H,
0, or S

Check (✓)
if hos-
pital trains

Cooks, Bakers,
Salad Preparation
Workers and
Helpers
(Continued)

Food Prepa-
ration for
Modified
Diets

Quality
Standards
of Food

Proper Food
Handling

Use and Care
of Equipment

Safety

Basic
Mathematics

Work Simpli-
fication

Chief Cook must
have knowledge
of supervisory
techniques

JOB CLASSIFICATION	GENERAL TASKS	SPECIFIC TASKS	SKILLS AND KNOWLEDGE	Check (✓) if hos- pital trains
Food Service Workers:	Serves food to cus- tomers or patients in specified manner.	Portions food into dishes.	Mark <u>H</u> , <u>O</u> , or <u>S</u>	—
Waitresses, Dietary Aides, Cafeteria Aides, or Counter Attend- ants, and Related Positions		Serves food for patient trays or on cafeteria line.	<u>Human</u> <u>Relations</u>	—
		Takes orders and serves food at tables.	<u>Communi-</u> <u>cations</u>	—
		Sets up steam table or cafeteria counter for service.	<u>Sanitation</u> <u>and Personal</u> <u>Hygiene</u>	—
		Changes linens and sets tables.	<u>Safety</u>	—
		May assemble food onto patient trays and serve trays to patients.	<u>Food Display</u> <u>and Service</u>	—
		May visit patients to collect menus.	<u>Quality Stan-</u> <u>dards for Food</u>	—
		May clear tables and return dishes to kitchen.	<u>Use and Care</u> <u>of Equipment</u>	—
		May collect patient trays for return to kitchen.	<u>Menu</u> <u>Terminology</u>	—
		May work at soda fountain.	<u>Limited</u> <u>Knowledge of</u> <u>Food Prepa-</u> <u>ration</u>	—

JOB CLASSIFICATION	GENERAL TASKS	SPECIFIC TASKS	SKILLS AND KNOWLEDGE	
Food Service Workers:		May clean silver and make coffee.	Mark <u>H</u> , <u>O</u> , or <u>S</u>	Check (✓) if hos- pital trains
Waitresses, Dietary Aides, Cafeteria Aides or Counter Attend- ants and Related Positions (Continued)		May perform other miscellaneous tasks related to serving food.	<u>Work</u> Simplifi- cation	—
			<u>Limited</u> Knowledge of Modi- fied Diets	—

JOB CLASSIFICATION	GENERAL TASKS	SPECIFIC TASKS	SKILLS AND KNOWLEDGE	
Food Sanitation Workers:	Maintains sanitary stan- dards of utensils and equipment used in food preparation and service.	Washes and sanitizes dishes, pots and pans.	Mark <u>H</u> , <u>O</u> , or <u>S</u>	Check (✓) if hos- pital trains
Dishwashers, Pot and Pan Washers, and Porters	Maintains sanitary stan- dards of physical plant.	Cleans heavy station- ary equipment and walk-in refrigerators.	<u>Human</u> Relations	—
		Sweeps and mops floors.	<u>Communi-</u> cations	—
		Remove trash and gar- bage.	<u>Sanitation</u> and Per- sonal Hygiene	—
		May wash walls and windows.	<u>Safety</u>	—
		May assist in moving supplies.	<u>Use and Care</u> of Equipment	—
		May assist in simple food preparation such as breaking eggs, opening cans, and packaged items, and preparing produce.	<u>Work Simpli-</u> fication	—
		May transport food ser- vice equipment such as food carts.		

APPENDIX C

III. Code _____

DEPARTMENT OF FOOD SCIENCE AND INSTITUTION ADMINISTRATION
THE UNIVERSITY OF TENNESSEE, KNOXVILLE

SURVEY OF HOSPITAL FOOD SERVICE PERSONNEL
QUESTIONNAIRE III. TO SELECTED HOSPITALS

HOSPITAL NAME _____

LOCATION _____
(Street Address) (City)

Each question must be answered by the designated person.

No answers are to be assumed by the interviewee.

If a question concerning the understanding of terminology is presented,
read the definition given.

I. ASK THE HOSPITAL ADMINISTRATOR:

1. What is your job title: _____
2. Does this hospital operate a nursing home or any other type of special patient care institution: (a) yes ____ (b) no ____ (If no, proceed to question 4).
3. What is the name, location, and bed capacity of the nursing home or special patient care institution:

<u>Name</u>	<u>Location</u>	<u>Bed Capacity</u>
(a) _____	_____	_____
(b) _____	_____	_____
(c) _____	_____	_____
4. As a hospital administrator, what do you consider your major problem relating to food service personnel:

(a) _____	(c) _____
(b) _____	(d) _____

5. What are the qualifications you look for when you hire a person to be in charge of this food service:
- (a) _____ (c) _____
- (b) _____ (d) _____
6. Does this food service receive regular services of a dietary consultant: (a) yes _____ (b) no _____
7. Are positions for dietitians and persons in charge of the food service presently vacant: (a) yes _____ (b) no _____ (If no, proceed to question 9).
8. What is the number of vacant positions for dietitians and persons in charge of the food service: (a) dietitians _____ (b) food service managers _____
9. Will new positions for dietitians and persons in charge of the food service be created in the next five years: (a) yes _____ (b) no _____ (If no, proceed to next part of questionnaire).
10. What will be the number of future created positions for dietitians and persons in charge of the food service: (a) dietitians _____ (b) food service managers _____

II. ASK PERSON IN CHARGE OF THE FOOD SERVICE:

A. Food Service Manager's Education Qualifications

1. What is your job title: _____
2. Have you had previous work experience in the food service field before you became employed by this institution: (a) yes _____ (b) no _____ (If no, proceed to question 4).
3. How many years have you had work experience in the food service field prior to being employed by this institution: (a) less than 1 year _____ (b) 1-4 years _____ (c) 5-9 years _____ (d) 10-14 years _____ (e) 15 years or longer _____
4. How many years have you worked in this food service: (a) less than 1 year _____ (b) 1-4 years _____ (c) 5-9 years _____ (d) 10-14 years _____ (e) 15 years or longer.
5. How many years have you been in charge of this food service: (a) less than 1 year _____ (b) 1-4 years _____ (c) 5-9 years _____ (d) 10-14 years _____ (e) 15 years or longer _____

6. How many years of formal education have you completed: (Circle last year completed) (Dietetic internship and a Master's degree count one extra year each)
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
7. During your formal education did you receive training in the food service field: (a) yes___ (b) no___ (If no, proceed to question 9).
8. Which of the following education programs did you attend and graduate: (a) adult education program¹___ (b) vocational education program²___ (c) 2-year junior or community college___ (d) 4-year college___ (e) other (specify)___
9. Are you a member of the American Dietetic Association or other professional organizations: (a) yes (specify)___ (b) no___
10. Have you attended continued education or training programs in the food service field in the last 2 years: (a) yes___ (b) no___ (If no, proceed to next part of questionnaire).
11. Which of the following types of education or training programs did you attend: (a) hospital sponsored management development course___ (b) adult education courses___ (c) vocation education courses___ (d) workshops___ (e) professional or trade conventions___ (f) college courses___ (f) other (specify)___
12. Which of these do you feel would be most helpful in your particular job: (Only one answer)

B. Employment Needs

1. What is the total number of food service employees:_____
2. How many of these are: (a) full time___ (b) part time___
3. How many are in these job classifications: (a) managerial___ (b) supervisory___ (c) clerical___ (d) food preparation workers___ (e) food service workers___ (f) food sanitation workers___

¹Adult education program is only one or several courses designed to teach a unit of a skill or area of knowledge.

²Vocation education program is a series of comprehensive courses designed to teach a specific skill or area of knowledge.

4. What is the average labor turnover rate³ annually: (a) ____%
(b) didn't know ____
5. How many vacant positions do you have at the present in each of these job classifications: (a) managerial____ (b) supervisory____
(c) clerical____ (d) food preparation workers____ (e) food service workers____ (f) food sanitation workers____
6. In which classification do you have the greatest labor turnover:
(a) managerial____ (b) supervisory____ (c) clerical____ (d) food preparation workers____
(e) food service workers____ (f) food sanitation workers____
7. In which classification are jobs most difficult to fill:
(a) managerial____ (b) supervisory____ (c) clerical____ (d) food preparation workers____
(e) food service workers____ (f) food sanitation workers____
8. In this classification, why do you think it is the most difficult to fill:

9. Do you anticipate adding any positions to your food service within the next five years: (a) yes____ (b) no____ (If no, proceed to next part of questionnaire).
10. For what reason do you plan to add new positions: _____

11. Which classifications will new positions be created:
(a) managerial____ (b) supervisory____ (c) clerical____ (d) food preparation workers____
(e) food service workers____ (f) food sanitation workers____

³Labor turnover rate is the percentage of total personnel terminations for a given period of time in relation to the number of employed personnel during the same period. Basic formula: $LT = S/N \times 100$.
LT = labor turnover rate; S = total separations for a specified period of time; N = average number of persons on the payroll during the same period.

C. Existence of Training Programs

1. Approximately what percent of your employees have had some formal training⁴ in the food service field before being hired: (a)___% (b) didn't know___.
2. Approximately what percent of the employees have participated in some type of food service training program not conducted by this food service in the past two years: (a)___% (b) didn't know___.
3. Does a formal training program exist in this food service:
(a) yes___ (b) no___ (If no, this questionnaire is completed).
4. What types of formal training programs exist in this food service:
(a) indoctrination⁵___ (b) orientation⁶___ (c) supervised-on-the-job training⁷___ (d) classroom education training program⁸___
(e) other (specify)_____

⁴Formal training conducted either on or off the job premises includes a preplanned sequence of experiences designed to increase skills and knowledge of the trainees.

⁵Indoctrination is the process of introducing an applicant to the institution, explaining the objectives, policies, and regulations of the institution, and describing the job being considered.

⁶Orientation is the process of acquainting the employee to his new work surroundings and to the persons with whom he will work.

⁷Supervised on-the-job training is the instructional process conducted by a designated person (usually the employee's immediate supervisor) whose instruction should increase the skills and knowledge of the employee up to a satisfactory level for job proficiency.

⁸Classroom education training program conducted in a classroom environment consists of organized, preplanned subject material designed to meet the particular educational needs of the trainees.

5. Which of the following people do the training in the various types of training programs:

	Food Service Manager	Staff Dietitian	Supervisor	Other Food Service Employees	Personnel Department Employees
Indoctri- nation					
Orientation					
Supervised on-the-job Training					
Classroom Education					
Other (specify)					

TABLE 7

MAJOR PROBLEMS RELATING TO FOOD SERVICE PERSONNEL
AS REPORTED BY HOSPITAL ADMINISTRATORS

Problems	Percent of Administrators Hospitals with Bed Capacities	
	A ^a	B ^b
Shortage of Personnel		
All personnel	20	50
Dietitians	0	20
Consultant dietitians	10	0
Supervisors	0	10
Food sanitation workers	0	10
Inadequately Trained Personnel	50	60
Insufficient Knowledge and Skills of		
Food Service Managers in		
Nutrition	20	20
Food service management	10	10
Human relations	0	10
Insufficient Knowledge and Skills of Food Preparation		
Workers in Food Preparation for Modified Diets	10	0
Lack of Responsibility and Dependability of Personnel		
Below Supervisory Level	10	10
High Labor Turnover Rates	20	50
Factors Influencing Employment		
Low wages	30	40
Low job prestige	0	10
Few promotional opportunities	10	10

APPENDIX D

TABLE 7 (continued)

Problems	Percent of Administrators Hospitals with Bed Capacities	
	A ^a	B ^b
Unstable employment of women	10	0
Unstable employment of older personnel	10	0
Racial integration problems	0	10

^aA = Ten hospitals with bed capacities between 25-100 beds, comprising 37 percent of the population.

^bB = Ten hospitals with bed capacities between 101 beds and over, comprising 71 percent of the population.

TABLE 8

QUALIFICATIONS OF FOOD SERVICE MANAGERS AS
DESIRED BY HOSPITAL ADMINISTRATORS

Qualifications	Percent of Administrators Hospitals with Bed Capacities	
	A ^a	B ^b
Education		
Membership in the American Dietetic Association	30	30
Baccalaureate degree in Nutrition, Foods, and/or Institution Administration	0	40
College courses in Nutrition, Foods, and/or Institution Administration	0	20
Graduate of high school	20	0
Experience in Food Service Management at Supervisory Level	30	10
Knowledge in Specific Areas		
Food service management	90	80
Nutrition	70	60
Human relations	30	40
Personnel administration	30	10
Supervision	0	30
Leadership	20	10
Cost control	0	20
Food preparation and service	0	20
Personal Attributes		
Good character	10	10
Good personality	10	20
Good appearance	10	20
Ability to effectively communicate with professional staff	10	10

TABLE 8 (continued)

Qualifications	Percent of Administrators Hospitals with Bed Capacities	
	A ^a	B ^b
Common sense	0	10
Sense of humor	0	10
Extrovert personality	10	20

^aA = Ten hospitals with bed capacities between 25-100 beds, comprising 37 percent of the population.

^bB = Ten hospitals with bed capacities of 101 beds and over, comprising 71 percent of the population.

TABLE 9
EVALUATION OF LABOR TURNOVER PROBLEMS BY
FOOD SERVICE MANAGERS

Job Classifications	Percent of Food Service Managers			
	Greatest Labor Turnover		Position Most Difficult to Fill	
	Hospitals with Bed Capacities			
	A ^a	B ^b	A ^a	B ^b
Managerial	0	10	0	20
Supervisory	0	0	10	10
Food Preparation	50	20	70	30
Food Service	20	10	0	30
Food Sanitation	30	60	20	10

^aA = Ten hospitals with bed capacities between 25-100 beds, comprising 37 percent of the population.

^bB = Ten hospitals with bed capacities of 101 beds and over, comprising 71 percent of the population.

TABLE 10
EDUCATIONAL QUALIFICATIONS OF FOOD SERVICE MANAGERS

Education Levels	Percent of Food Service Managers Hospitals with Bed Capacities		
	A ^a	B ^b	Average ^c
8 Grades	100	100	100
12 Grades	80	100	90
Baccalaureate Degree	10	50	30
Member of the American Dietetic Association	0	30	15
Master's Degree	0	0	0

^aA = Ten hospitals with bed capacities between 25-100 beds, comprising 37 percent of the population.

^bB = Ten hospitals with bed capacities of 101 beds and over, comprising 71 percent of the population.

^cPercent of the number of responses from 20 food service managers.

TABLE 11
FOOD SERVICE MANAGERS' WORK EXPERIENCE
IN THE FOOD SERVICE INDUSTRY

Years	Percent of Food Service Managers					
	Prior to Current Employment		Current Employment		In Charge of Department	
	A ^a	B ^b	A ^a	B ^b	A ^a	B ^b
0-1	30	40	10	20	10	20
1-4	0	10	40	10	50	20
5-9	20	20	30	30	20	30
10-14	0	20	20	40	20	30
15 +	50	10	0	0	0	0

^aA = Ten hospitals with bed capacities between 25-100 beds, comprising 37 percent of the population.

^bB = Ten hospitals with bed capacities of 101 beds and over, comprising 71 percent of the population.

TABLE 12

FOOD SERVICE MANAGERS' PARTICIPATION IN FOOD
SERVICE TRAINING PROGRAMS

Training Programs	Percent of Food Service Managers Hospitals with Bed Capacities		
	A ^a	B ^b	Average ^c
Adult Education	0	10	5
Vocation Education	0	0	0
Workshops	40	70	55
Professional or Trade Conventions	0	40	20
College Courses	0	20	10
Hospital Sponsored Training Programs			
American Dietetic Association's Supervisory Courses	30	20	25
State of Tennessee Supervisory Course	0	10	5

^aA = Ten hospitals with bed capacities between 25-100 beds, comprising 37 percent of the population.

^bB = Ten hospitals with bed capacities of 101 beds and over, comprising 71 percent of the population.

^cPercent of the number of responses from 20 food service managers.

TABLE 13

PERSONS CONDUCTING TRAINING PROGRAMS FOR
FOOD SERVICE PERSONNEL IN HOSPITALS

Trainers	Percent of Persons							
	Indoctrination		Orientation		On-The-Job Instruction		Classroom Lecture	
	A ^a	B ^b	A ^b	B ^b	Hospitals with Bed Capacities		A ^b	B ^b
					A ^a	B ^b		
Food Service Managers	30	70	40	70	100	100	50	70
Staff Dietitians	0	20	0	20	0	20	0	20
Consultant Dietitians	0	0	0	0	0	0	10	0
Food Service Supervisors	0	20	0	20	10	70	0	30
Other Food Service Personnel	0	0	0	0	10	10	0	0
Hospital Administrators	0	0	0	20	0	0	0	0
Employees in Personnel Department	0	20	0	10	0	0	0	0

^aA = Ten hospitals with bed capacities between 25-100 beds, comprising 37 percent of the population.

^bB = Ten hospitals with bed capacities of 101 beds and over, comprising 71 percent of the population.

TABLE 14

EVALUATION OF MANAGERIAL TRAINING BY FOOD SERVICE MANAGERS
IN SMALL AND LARGE HOSPITALS^a

Skill or Knowledge	Important Skills		Training Conducted in Hospitals		Training Responsibility					
	A ^b	B ^c	A ^b	B ^c	Hospital		Outside Agency		Shared	
					Bed Capacities		A ^b	B ^c	A ^b	B ^c
Human Relations	30	80	20	60	10	10	10	0	80	90
Communications	20	50	10	70	10	20	20	0	70	80
Management Principles	50	80	10	70	10	10	60	50	30	40
Record Keeping	30	50	0	50	30	50	40	20	30	30
Food Procurement	100	90	20	70	10	30	60	40	30	30
Layout and Design of Equipment and Plant	0	0	0	20	30	50	20	20	50	30
Human Nutrition and Food Science	80	90	40	60	10	0	70	60	20	40
Quantity Food Preparation and Service	50	80	30	60	0	20	70	10	30	70
Menu Planning	100	100	30	50	10	40	60	40	30	20
Personnel Administration	10	60	0	60	30	50	40	20	30	30
Use and Care of Equipment	20	50	20	50	0	20	30	40	70	40
Specific Information Regarding Types of Feeding Requirements for Certain Groups	10	20	30	20	40	40	20	40	40	20

^aPercent of the number of responses from 20 food service managers.

^bA = Ten hospitals with bed capacities between 25-100 beds, comprising 37 percent of the population.

^cB = Ten hospitals with bed capacities of 101 beds and over, comprising 71 percent of the population.

TABLE 15

EVALUATION OF TRAINING FOOD SERVICE SUPERVISORS BY FOOD SERVICE MANAGERS
IN SMALL AND LARGE HOSPITALS^a

Skill or Knowledge	Important Skills		Training Conducted in Hospitals		Training Responsibility					
	A ^b	B ^c	Hospitals with		Hospital Bed Capacities		Outside Agency		Shared	
			A ^b	B ^c	A ^b	B ^c	A ^b	B ^c	A ^b	B ^c
Human Relations	70	80	40	90	10	10	30	10	60	80
Communications	60	50	40	80	10	10	30	0	60	90
Use and Care of Equipment	40	50	30	80	0	40	50	20	50	40
Menu Terminology	30	40	40	60	20	20	50	30	30	50
Principles of Nutrition and Diet Therapy	90	50	60	90	10	10	50	40	40	50
Sanitary and Safety Standards	60	70	40	80	30	30	30	40	40	30
Mathematics as Related to Cost Control	20	20	50	50	10	30	60	70	30	0
Principles and Standards of Quantity Food Preparation and Service	90	100	40	90	0	10	50	40	50	50
Effective Use of Non-Supervisory Personnel	50	70	20	80	10	20	60	30	30	50

^aPercent of the number of responses from 20 food service managers.

^bA = Ten hospitals with bed capacities between 25-100 beds, comprising 37 percent of the population.

^cB = Ten hospitals with bed capacities of 101 beds and over, comprising 71 percent of the population.

TABLE 16

EVALUATION OF TRAINING FOOD PREPARATION WORKERS BY FOOD SERVICE MANAGERS
IN SMALL AND LARGE HOSPITALS^a

Skill or Knowledge	Important Skills		Training Conducted in Hospitals		Training Responsibility					
	A ^b	B ^c	A ^b	B ^c	Hospital		Outside Agency		Shared	
					Bed Capacities		A ^b	B ^c	A ^b	B ^c
Human Relations	20	30	20	70	30	50	10	10	60	40
Communications	40	30	30	60	30	30	20	10	50	60
Sanitation and Personal Hygiene	90	80	60	100	20	30	30	50	50	20
Menu Terminology	10	50	30	80	20	60	50	20	30	20
Principles of Nutrition as Related to Food Preparation	40	60	30	70	0	30	70	30	30	40
Use of Standardized Recipes	60	90	40	70	0	30	70	40	30	30
Principles of Quantity Food Preparation and Service and Their Application	80	90	40	90	10	20	50	20	40	60
Food Preparation for Modified Diets	10	80	60	90	30	20	30	10	40	70
Quality Standards for Food	0	100	30	70	30	20	40	30	30	50
Proper Food Handling and Storage	80	90	40	90	20	20	40	40	40	40
Use and Care of Equipment	40	70	40	90	30	70	20	20	50	10
Safety	20	80	50	90	30	70	20	20	50	10
Basic Mathematics	30	30	0	60	30	20	60	50	10	30
Work Simplification	0	20	20	80	20	40	30	10	50	50
Chief Cook Must Have Knowledge of Supervisory Techniques	10	30	10	70	30	20	30	30	40	50

^aPercent of the number of responses from 20 food service managers.

^bA = Ten hospitals with bed capacities between 25-100 beds, comprising 37 percent of the population.

^cB = Ten hospitals with bed capacities of 101 beds and over, comprising 71 percent of the population.

TABLE 17

EVALUATION OF TRAINING FOOD SERVICE WORKERS BY FOOD SERVICE MANAGERS
IN SMALL AND LARGE HOSPITALS^a

Skill or Knowledge	Important Skills		Training Conducted in Hospitals		Training Responsibility					
					Outside					
					Hospital Agency Shared					
	A ^b	B ^c	A ^b	B ^c	A ^b	B ^c	A ^b	B ^c	A ^b	B ^c
Human Relations	30	60	40	80	40	40	10	10	50	50
Communications	30	40	50	60	40	40	20	10	40	50
Sanitation and Personal Hygiene	80	90	70	100	40	50	20	20	40	30
Safety	50	60	50	90	50	40	30	10	20	50
Food Display and Service	50	60	40	90	40	30	30	20	30	50
Quality Standards for Food	40	50	40	90	40	30	40	0	20	70
Use and Care of Equipment	20	80	40	90	50	60	30	0	20	40
Menu Terminology	20	40	40	80	50	60	40	30	10	10
Limited Knowledge of Food Preparation	60	60	50	80	20	40	50	30	30	30
Limited Knowledge of Modified Diets	30	60	50	90	40	50	30	30	30	20
Work Simplification	10	30	30	90	40	50	40	20	20	30

^aPercent of the number of responses from 20 food service managers.

^bA = Ten hospitals with bed capacities between 25-100 beds, comprising 37 percent of the population.

^cB = Ten hospitals with bed capacities of 101 beds and over, comprising 71 percent of the population.

TABLE 18
EVALUATION OF TRAINING FOOD SANITATION WORKERS BY FOOD SERVICE MANAGERS
IN SMALL AND LARGE HOSPITALS^a

Skill or Knowledge	Important Skills		Training Conducted in Hospitals		Training Responsibility					
	A ^b	B ^c	A ^b	B ^c	Hospital Bed Capacities		Outside Agency		Shared	
					A ^b	B ^c	A ^b	B ^c	A ^b	B ^c
Human Relations	20	70	40	100	40	30	10	0	50	70
Communications	30	30	30	90	50	30	10	0	40	70
Sanitation and Personal Hygiene	100	100	70	100	40	40	30	10	30	50
Safety	70	90	70	100	50	60	30	10	20	30
Use and Care of Equipment	30	100	70	100	50	40	30	10	20	50
Work Simplification	0	70	50	100	30	60	50	10	20	30

^aPercent of the number of responses from 20 food service managers.

^bA = Ten hospitals with bed capacities between 25-100 beds, comprising 37 percent of the population.

^cB = Ten hospitals with bed capacities of 101 beds and over, comprising 71 percent of the population.

VITA

Betty Ingle Foster was born in Morristown, Tennessee, on September 26, 1946. In Knoxville, Tennessee, she attended elementary school and graduated from Bearden High School in 1964. The following June she entered The University of Tennessee, and in December 1967, she received a Bachelor of Science degree in Home Economics with a major in Food Science and Institution Management.

In January 1968, she accepted a teaching assistantship and began study toward a Master of Science degree. The following December, she became employed as the therapeutic dietitian at Saint Mary's Hospital in Knoxville while continuing part-time graduate study.

In September 1969, she returned to full-time graduate study and accepted an assistantship. The major responsibility of the assistantship was to meet the nutritional needs of 50 children in the university child day care center. She is completing the requirements for the Master of Science degree in Home Economics in August 1970, with a major in Institution Administration and minors in Nutrition and Food Science.

She is married to Martin Foster of Knoxville, Tennessee.