

GUIDE TO UTILIZE EXISTING  
SCHOOL LUNCH FACILITIES  
TO FEED THE ELDERLY

By

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## CHAPTER I

### INTRODUCTION

There is no such thing as an aged type of person. Each one is an individual with slowing abilities and performance. The nutrition of the elderly involves a lifelong way of eating and the inevitable physical and social changes of aging. However, the survival of the aged attests to the adequacy of the eating practices of older people. The aging body becomes more sensitive and less tolerant to foods that once could have produced only minor discomforts. Foods that once brought pleasure may now lead to discomfort during the later years. Troll (1) states that the food habits acquired as a young person are no longer appropriate to current ways of life when older.

If food is to supply the desired nourishment for the aged, it should be readily available. One of the goals of any nutrition program for older people according to Troll (1) should be to keep them physically, socially, and psychologically alive. This means a good nutrition program for the aged includes the proper balance of nourishing food adapted to individual tastes and preferences. It also allows for meaningful social involvement to suit varying personality types. Flexible rules can be followed when planning to feed the elderly.

Almost one-fourth of older Americans are poor and nearly all feel a squeeze on their fixed incomes (2). They simply do not have incomes adequate to purchase a diet which provides health and well-being, states

Troll (1). Buying food on the basis of past habits for optimal nutrition may be impossible. The elderly person's life style may change and he may become unhappy. The lack of money, plus the loss of energy and depression, can lead to distortion of the nutritional pattern. Thus there is a contradiction between what was a way of eating, and the physical and social changes of the present. Dietitians as health professionals must be able to relate to such problems.

This research was planned for the purpose of developing a guide to utilize existing school lunch facilities to feed the elderly in Oklahoma. It was anticipated, as an outcome, that policies would be recommended to the school lunch administration to implement the feeding programs. Providing food with dignity is important to the psychological as well as the physical needs of older persons.

Hays (8) expresses the author's sentiments and her concern for the elderly in one of his works:

#### LONELY

As we walk down the street we often chance to meet  
 Some elderly man or woman whose life is naught but woe.  
 With age they are bent, their life blood almost spent,  
 For comfort they know not where to go.  
 With the help of Social Security, Medicaid and Medicare  
 They have a roof over their heads, food to eat and  
 clothes to wear.  
 But they are lonely.  
 Their friends and kin seem to have forsaken them,  
 Their bodies are racked with pain and they live in  
 despair.  
 So let us cheer them on, they can't be with us long.  
 Don't sneer at them because they are old and gray.  
 Just remember while you are young, that the day to you,  
 too, soon will come  
 When you are old and only in the way.

## CHAPTER II

### REVIEW OF LITERATURE

The United States government has placed special emphasis on the services that have enhanced the lives of older Americans the last few years. These services have included such things as home health aids, homemaker, and nutrition services. The basis for these services is the Older American Act of 1965; the Task Force on Problems of the Aging in 1969; the White House Conference of Food, Nutrition, and Health in 1969; and the 1971 White House Conference on Aging (4).

President Nixon, in his budget submitted to Congress January 29, 1973, proposed \$195.6 million in programs for older Americans through June 1974. The proposed new spending will include approximately \$100 million each year for the new national nutrition program for the aging (5).

This program was authorized and appropriated by the last Congress, but to date has not been passed. The new title of the act is to be Title III of the Older American Act. Assuming this will pass, \$68 million would be for area planning and services, \$16 million for model projects and \$12 million for State agency operation during 1973 (5).

The President outlined his objectives for the legislation:

"... will support a broadened effort to enable the elderly to live with dignity in their own homes, to continue to contribute productively in society, and to enjoy the benefits presented by lengthening life-spans relieved of infirmity and dependency to the greatest possible extent.



Special emphasis is being placed on services which will enhance the lives of older Americans such as home health aids, homemaker, and nutrition services. The basic authority for these programs expired at the end of 1972. Legislation will be proposed to extend and improve programs" (5).

Wolgamot (8) reports use of public school facilities after school hours in Los Angeles and the Washington Urban League in the District of Columbia serving individually-packaged meals to older persons in crowded urban areas. The meals are ready-to-serve and delivered to public housing sites, recreation centers, and churches. She (8) also mentions Chicago's 3000 older persons being served food in 35 different sites. Seattle's older citizens, living in downtown hotels, are being served a hot noon meal by a downtown church, accompanied with a social program. The Northeast Kentucky Area Development Council, Inc., (8) is bringing the elderly poor in isolated mountain areas together to upgrade their meals and alleviate their loneliness.

A prepilot elderly feeding program was undertaken in Brookline, Massachusetts in 1968 (7) leading to state legislation that extended the program to all Massachusetts communities. A noon meal is made available to the elderly each school day. The act specifies that a school lunch period for the purpose of serving the needy elderly may: charge each person for each lunch a maximum of 50 cents, the lunches shall meet the nutritional standards established by the Department of Education, the serving procedure determined by each school committee for serving lunches shall be approved by the Commission on Aging and the Office of School Lunch Programs in the Department of Education, and the Commission on Aging shall provide each person with an identification card certifying his eligibility to participate in such a lunch program (7).

Cronan (7) states that the program is funded by the state with a small amount of money provided by the Federal government. Excluding equipment, schools are reimbursed for any cost over the 50 cents paid per lunch. Additional costs include custodial services, extended hours of labor for cafeteria employees and food.

In general, the nutritional content of the Type A lunch served to children is felt to be adequate for the older age group. However, their energy requirements are lower because of the decrease in metabolic rate and activity. The National Research Council recommended that calorie allowances decline for the reference man from 2800 at age 22 to 2400 at age 65 and for the reference woman from 2000 at age 22 to 1700 at age 65 (8).

A lunch based on the pattern listed below is known as "Type A" lunch and is designed to meet one-third or more of the daily dietary allowances recommended by the National Research Council for a nine to twelve year old child. Lunches served under the National School Lunch Program, in order to be eligible for cash reimbursement, must contain as a minimum:

1. One-half pint of fluid whole milk as a beverage.
2. Two ounces (edible portion as served) of lean meat, poultry, or fish; or two ounces of cheese; or one egg; or one-half cup of cooked dry beans or peas; or four tablespoons of peanut butter or an equivalent quantity of any combination of any of the above foods. To be counted in meeting this requirement, these foods must be served in a main dish, or in a main dish and one other menu item.

3. A three-fourths cup serving consisting of two or more vegetables or fruits, or both. Full-strength vegetable or fruit juice may be counted to meet not more than one-fourth cup of this requirement.
4. One slice of whole-grain or enriched bread; or a serving of cornbread, biscuits, rolls, muffins, etc., made of whole-grain or enriched meal or flour.
5. Two teaspoons of butter or fortified margarine (9).

Cost of the food served to the elderly in Massachusetts (7) is higher than that served to teachers. Both milk and tea or coffee are served, and three ounces of protein are provided. Cronan (7) indicates that dentures, diseases of the stomach, lack of appetite, and difficulty in transportation to and from markets to purchase foods all have an effect on what older people eat. She speculates that perhaps nutrition's role in the aging process is the most important factor that can be controlled directly by the individual.

Cronan (7) found that the elderly wanted to know what they should be eating. By explaining to them the purpose of the lunch program she pointed out the modifications that older people should make in choosing the lunch at school, such as less bread and butter than the young people eat. The men and women tend to take home the bread and milk to be consumed later. No therapeutic diets are provided in the program (7).

Over and above Federal legislation it is expected that existing resources at the local level will be used to implement such programs. A search for appropriate ways and means to expand school nutrition programs has been constant since before the passage of the National School Lunch Act in 1946. Following passage of the Economic Opportunity Act of

1964, school nutrition program administrators became involved in the nutrition aspects of Head Start and other Community Action Program projects. As schools began to provide satellite food services to Head Start centers, school food service moved into the first nationwide, federally-funded school nutrition program in community activity (6).

Emphasis is now being put on the prevention of poor nutrition by supporting elderly group feeding programs. The traditional roles of schools are changing to serve not only students but the entire community. Different communities approach feeding the elderly in different ways. Some feed the elderly solely in schools. Others take meals to the senior citizens. Some schools combine the two methods (7).

Volunteer help has benefited the Massachusetts program. Volunteers include a trained social worker; a psychiatrist, who conducts group therapy meetings; and an artist, who instructs one day a week. An opportunity for the elderly to be with others and to be aware of each other's difficulties and joys is one of the program's most outstanding contributions (7).

Members of the Santa Fe Senior Citizens Center take part in a food for the elderly program in the Mid-High School Cafeteria in Santa Fe, New Mexico (10). By going through the cafeteria line after students have been served, each member is served a nutritious lunch. For this he pays 30 cents if he can afford it. The remainder of the costs are paid by the Office of Economic Opportunity, Community Action Program and Commission on Aging. Among results noted are better general health and greater sociability. Many members show more interest in the world around them, and some are better groomed.

In Eau Claire, Wisconsin (10), feeding the elderly is a joint project of the city's schools and the local association on aging. The program is available to all of the city's 4000 elderly. The cost per meal is 55 cents. The menus are published in the weekly newspaper and radio stations advertise the program. The participants are served at 1 p.m., so they can combine their meal with a leisure time among friends when the students return to classes. In addition to this service meals to shut-ins who could not prepare their own meals was begun.

A feeding the elderly program in Avon, Connecticut, was approved by the city Board of Education in February of 1971 (11). Participants eat in the regular student cafeteria after the last lunch period. In Avon, participants pay 60 cents - the same as teachers. Attention is given to making the elderly visitor feel at home in the school environment.

The commercial food service industry also is beginning to enter the picture. In Boston, a self-supporting program is underway in Franklin Square (12). The food is served in the lobby of the Old South End Hotel five days a week for 50 cents a patron. Food is pre-prepared and frozen; bought from a food manufacturer for 35 cents. For the extra 15 cents the city furnishes tea or coffee, rolls, butter and dessert. A convection oven in the hotel's kitchen reheats the food in 25 minutes. There are take-outs (for 35 cents) for those who wish to eat at home. This program does not use State and Federal funds.

As an aid to the elderly and to add income to the food service industry reduced meal prices are offered at 67 restaurants in the Minneapolis-St. Paul area. This has brought out more than 5600 elders to eat at off-peak hours (12). The cost is 20% off the regular price or

\$1, which ever is a lesser expense for the patron. It is sponsored by the Minneapolis Age and Opportunity Center and the Minnesota Restaurant Association. The program is for those who have an annual income of less than \$3500.

In San Francisco, Mannings' and Fosters' cafeteria chains were asked to make available an inexpensive nutritious meal after studies had shown that elders were not eating properly (12). Funds from the department of Health, Education and Welfare were obtained to help the two chains develop menus. The current price was set at \$1.25 per meal and the firm breaks even on the project. Menus are distributed to all senior citizens groups in the city and posted in restaurants.

The fact that Long Beach, California, has the second largest population of older people in the United States motivated ten restaurant owners to offer specials for Seniors (12). These ranged in price from \$1 to \$1.25 at off-hours. Almost every restaurant in Long Beach offers a 79 cent special breakfast from 9:30 to 10:30 a.m. In this way older people can eat two meals a day for approximately \$2 a day. The supervisor of the Senior Citizens in Long Beach says that the restaurants are popular for the Seniors. A variety of foods are offered, there is no tipping, and there is more opportunity for the older patron to control the cost of the meal without calling attention to it.

These hot meal programs are evidences of concerned professionals bringing elderly people together in central locations to offer them needed community services. Yet little evidence of the planning or technology that went into the programs has been documented. Therefore, when basic structured organization of food service management is referred to,

past lunchroom management guides will provide the principle information. Current food technology must guide the planner, too.

The goal of every school lunch program is to serve nutritionally adequate, attractive, and moderately priced lunches. Appetizing lunches that meet these standards are a real achievement and the result of careful planning. The Type A Lunch requirements form a simple and easy-to-follow menu pattern, but the quality of the lunch depends on the knowledge, ability and judgment of the person using the pattern in planning food combinations.

The quality and appeal of the school lunch menu influences participation (13) and this has a direct effect on the financial stability of the program operation. A steady level of participation is to be desired and enables management to stabilize the labor cost. This is also desirable as the lunchroom is the largest living laboratory where good nutrition can be taught and practiced. Improvements are seen through repetitive eating (13) of well-planned and prepared meals.

A "must" in planning low cost menus is to include USDA donated foods to the greatest extent (13). The Plentiful Foods List, supplied each month during the school year, needs to be given attention for the best purchases. These two lists are part of the agreement between the local school district and the Department of Education.

The menu is the core around which food production is planned. Menu planning presents several challenges to the lunchroom manager. The best possible lunches at the lowest possible costs should be provided, as menus are based on a yearly budget. There is a challenge to efficiently use the kitchen employees and equipment through well-planned menus. A special menu periodically introduced (13) can help carry on an effective

public relations program to children and adults. Continual evaluation of the school lunch program is essential to meet the goals of serving nutritionally adequate, attractive, and moderately priced lunches.

Menus can be planned more easily and efficiently when a systematic method of organization is followed. A well arranged quiet corner or office in the kitchen area at school is essential.(13). The menu planner should allow time for study and review of inventories, purchasing practices and delivery schedules, prices, previous menus, menu suggestions, and recipes. Reference materials should be readily available. The period of time for which menus and quantities of foods will be planned should be determined to prepare market orders.

Cycle menus are a series of menus based on a specific period of time. They are planned, used and repeated in sequence. A cycle menu will not put an end to menu planning, but when properly and effectively used, it should save time for the manager. In Appendix D there is a typical school lunch cycle menu that meets the Type A requirements.

Customers must be kept in mind when analyzing a cycle menu (13). The menus need to be assessed from every point of view. The menus should be appealing, interesting, and economical. Variety and contrast will contribute to eye appeal. Colorful foods and garnishes can brighten a menu. Menu items should be placed on a tray or plate in relation to color, shape, and texture. Consider the regional, cultural, and personal food preferences of the clientele. Introduce new or less popular foods with familiar ones as part of an education process (13). Adjust the menu for seasonal variations. Plan lunches that can be prepared and served by the employees in the time available and with the facilities and equipment in the lunchroom.



One way to evaluate the menu is to check the actual plate waste. Plate waste represents a financial and nutritional loss to the child. It also represents a financial loss to the school in money spent for food and labor. More than a gallon of plate waste per 100 served is usually considered to be excessive (13) and the causes should be determined. The manager could consider some possible causes of plate waste; the food was difficult to cut or handle; the lunch period was too short; or extra items, such as ice cream, cookies, candy, cupcakes, and soft drinks were sold on the school grounds.

On April 17, 1973, Isabelle A. Hallahan, American Dietetic Association President testified before the Senate Select Committee on Nutrition and Human Needs regarding the Association's recommendations with respect to "competitive" foods in school food service programs. Her testimony (17) included: The association recognizes that vending machines in some situations may serve as an integral part of a total food operation. Our attitude is not in opposition to the vending of food but rather that all choices so provided be under the supervision of the person or persons responsible for the total food operation who are concerned with the establishment and maintenance of the "highest standards of good nutrition".

Bard (14) reports a satisfactory vending operation feeding students in Holland, Michigan. The machines once were used only to sell high-caloric low-nutrient foods. Now they dispense such items as chili, hot sandwiches or meat sandwiches. While soda and ice cream novelties are still sold, some machines can dispense a complete Type A lunch platter. An ample lunch for a senior high boy costs 50 to 60 cents. Advantages of the program are lower payroll costs and lesser space requirements.

A cooperative effort between school teachers and staff members should be made to stop excessive plate waste. One effective tool in controlling plate waste is the use of a set of standardized recipes to prepare appetizing food. A standardized recipe is one which has been tested for quality and yield, so the finished product is produced each time the recipe is used (13). If quality Type A lunches are to be served consistently, recipes and portions must be consistent. Standardized recipes save time, money, and production control is more easily achieved. Each school in the Type A lunch program is provided with a set of United States Department of Agriculture (USDA) recipes (13). Recipes from other sources should be reviewed to determine their contribution to the Type A lunch requirements, appropriateness, cost, and feasibility in the program.

Skill in cooking is an art, whether it be on a small scale or large scale. The goals in cooking food are basically the same for each: to make food look and taste good, to conserve food and food values, and to avoid waste (13). The Oklahoma School Lunch Section outlines these steps to obtain a quality product consistently:

1. Select and purchase quality foods.
2. Use a standardized recipe and follow it carefully.
3. Use proper equipment - weigh or measure accurately, using standard equipment.
4. Cook the food according to directions on the recipe and use sound food preparation practices.
5. Serve the food attractively, using standard serving equipment.

Perhaps the most enjoyable and satisfactory step in quantity food preparation is serving the school lunch. Pleasant and well groomed

workers, the appearance of the food on the serving counter, and the way the food is served all have a direct bearing (13) on the child's appetite. The attitude of workers at serving time also greatly influences children's reactions to foods,

Speed in food service may be achieved by developing skills and techniques that use the fewest possible motions. Guidelines are never dipping twice for one serving of food (13) and when possible, using utensils in both hands at the same time. Although speed is important, attractiveness of the finished product comes first, served by a smiling worker.

Before food can be prepared for a menu it must be procured. Sound food buying practices make it possible to obtain the maximum from the dollars spent (13). The cost of food is the largest expenditure in the School Lunch Program budget. Advance menu planning allows time to determine the quantities of food needed, explore the market and develop specifications. A systematic plan for purchasing must be set up and carried out to meet specific needs, if an effective job is to be done. To achieve this a knowledge of the purchasing process is necessary. Some purchasing systems (13) are based on these steps:

set a budget, take inventory, prepare a Type A lunch menu, write a market order, obtain permission to buy, determine the method of buying, compare prices, place orders, receive and inspect goods, insure proper storage, and use the goods as planned in the budget

The three types of purchasing practices commonly referred to are the open market, formal or competitive bidding, and negotiated buying (13). Whatever method of purchasing is put into practice, records must be kept on all transactions. Purchasing by written specification or bid is most

effective in control of cost and quality. Any contract entered into must be legal and enforceable.

Certain foods are offered (13) by the USDA to State Departments of Public Welfare. The USDA pays for processing and packaging of foods and for transporting them in carload lots to receiving points chosen by the State Agency. This donation is intended to improve the diets of children by helping to provide lunches in schools and create additional food use. Donated foods may change in variety from time to time (13). Foods available from surplus-removal and price-support operations vary according to the market conditions. Purchasing is only one part of planning a School Lunch Budget.

Where is the money going? Expenditures are made up of food, labor, and miscellaneous costs. The cost per meal is the sum of the costs of food, labor, and other expenses divided by the number of lunches served. The labor cost per lunch may be determined by calculating the monthly cost of all employee time chargeable to the Type A lunch program and dividing the total by the number of lunches served (13). This is usually figured on a monthly basis. The School Lunch fund should have a reserve on hand to cover unanticipated expenses. It is recommended that it be at least the amount of one month's normal expenses. When money is being accumulated for specifically designated equipment, a balance in excess of two month's normal expenses is acceptable.

Good storage facilities - both dry and refrigerated - help keep foods safe, wholesome, and appetizing. Meals taste better, and are better nutritionally if all foods used to prepare them are at the peak of quality. Careful consideration must be given to providing the needed facilities to insure all foods will have adequate storage to

maintain their high quality and nutritive value until consumed. Temperature, humidity, and ventilation must be controlled. Provision should be made for regular checks by an extermination service. Storage areas should be adjacent to the kitchen area (13) and convenient to the receiving area.

Different types of storage (13) are needed to maintain food and supplies at peak quality (Figure 1).

TYPE	TEMPERATURE	USE	CHARACTERISTICS
Dry - Cool	50° - 70°	Semi-perishable and staple items	Well lighted Dry Well ventilated Easy to clean Well constructed shelves Floor racks Thermometer
Dry	-----	Detergents Paper goods	Same as above
Refrigerated Reach-in or Walk-in	32° - 45°	Perishables Semi-perishable Raw and cooked foods for short periods of time	Thermometer Adjustable shelves or floor racks
Frozen Food Storage	0° F or below	Frozen foods	Thermometer Shelves or racks Properly wrapped packages

Figure 1. Types of Food and Supply Storage Available

There are some tips to satisfactory arrangement of a storeroom: arrange food groups in alphabetical order, place oldest stocks out front, place heavier items on lowest shelves or racks, store all foods away from the wall and off the floor. Cases should be stacked so that the labels showing the content and date are visible (13). Certain staples may be stored in plastic or metal food containers with tight-fitting covers. Dollies with rollers make such containers portable.

Storeroom management requires constant follow-up. Foods that absorb odors should be stored away from those that emit odors. Food should not be stored in the same room with detergents, insecticides, or germicides (13). Certain foods and cleaning supplies are similar in appearance. Storage of these items in separate rooms reduces the possibility of mistakes. Every effort should be made to use all foods on hand before the end of the school year.

Sanitation and cleanliness are imperative (13) to protect the health of school children and should receive proper emphasis in food production. Good food must not only taste and appear good, but it also must be clean and safe to eat. Most food poisoning outbreaks are caused by failure of lunchroom personnel to follow sanitary practices. Each member of a school food service unit carries the responsibility to follow these. Employees should have a keen awareness of the importance of their own good health and personal hygiene in relation to the dangers of the improper care and handling of food.

An understanding of the difference between cleaning and sanitizing is advantageous to all personnel. Clean means the absence of soil (13). Sanitary refers to the absence of harmful bacteria, molds, fungi, or yeast. A clean item will usually be sanitary, but not necessarily so.

It is usually necessary to thoroughly clean all surfaces before they can be sanitized. Cleaning is accomplished by three factors which are water, a wetting agent (detergent), and friction. Sanitizing also may be done by chemicals or high temperatures.

McGee, et al. (13) believes that persons associated with the presentation of food or washing of utensils in a feeding program should have a physical examination at the beginning of each school year. Attending food handler training programs also is desirable. A person who is affected with any disease in a communicable form or is a carrier of that disease should not work in any eating establishment. Every employee should stay away from work if he has any short term communicable disease. Only healthy people should handle food.

Safe sanitary food cannot be prepared, stored, or served using unsanitary facilities. Only quality products, properly prepared and handled in a clean kitchen can be depended on to produce a safe lunch. The operation of dishwashing contributes to a clean food environment. Moist heat will destroy bacteria. Twelve seconds at 180° F. in a dishwasher rinse will destroy most bacteria. Usually on handwashed items, a rinse of 180° F. for 30 seconds is recommended. Hot steam is an excellent bactericide (13). Good sanitizing procedures will destroy most bacteria. Air drying of dishes is recommended.

The lunchroom manager has the basic responsibility for sanitation in the kitchen. He immediately should (13) call all major sanitation and safety hazards to the attention of the principal. By keeping current on sanitation procedures and requirements he can practice his knowledge and train school lunch personnel. Above all, cooperation with school officials is necessary for a successful sanitation and safety program.

There are some essential physical requirements for safety protection. A first aid cabinet which is kept up to date must be available at all times (13). Adequate and proper fire extinguishers must be provided. A fire blanket is recommended for smothering grease or clothing fires. Preferably it would be stored in a roll-on wall bracket.

School Lunch is big business and in addition to the operational functions discussed previously, there are many management functions (13) such as setting standards, policy making, planning, organizing, communicating, controlling, supervising, and evaluating. It is necessary to establish a basic plan of organizational policies and principles for efficient and economical school lunch operation. A "Policies Book" is of great value to a director, especially when managing the programs for several schools (16).

Regardless of the management methods used, all should result in the clarification of goals and plans for improvement. School Lunch personnel must work cooperatively. Not only are their relationships with each other important, but the cooperation of the children, the faculty, and the patrons must be maintained to achieve the greatest benefits from the lunch program.

Management control of labor may be evaluated by checking the number of meals per man hour used for each meal served. According to McGee, et al. (13) the Oklahoma School Lunch Section has developed a guide to aid in decision making.

The average number of meals per man hour should range from 12 to 16, depending upon the adequacy and arrangement of equipment and facilities, type of meal served, length of serving time, and other factors. Divide the number of meals served in your lunchroom by the numbers 12, 13, 14, 15, or 16 to find the number of hours of labor required. Use the following guide to determine the number of employees needed.



(This may not be applicable to schools serving 100 or less.)

100 Meals @ 12 Meals per Man Hour = 8 1/3 hours labor  
 200 Meals @ 13 Meals per Man Hour = 15 1/2 hours labor  
 400 Meals @ 14 Meals per Man Hour = 28 1/2 hours labor  
 650 Meals @ 15 Meals per Man Hour = 43 1/3 hours labor.

Wynn (18) outlines points in planning school lunch cafeteria work schedules:

1. Determine number of people needed in the food-service department - based on the actual number of personnel needed to serve the meal.
2. Be sure that no one other than the manager is scheduled to arrive for work more than 3 hours before serving time unless there is some particular reason - such as employee having his lunch hour before the student lunch period.
3. Break down labor hours into preparation, serving and cleaning.
4. Be sure that work schedules are prepared.
5. Time recipes. This gives supporting information on how much time is needed for each recipe for particular tasks and for menus as a whole.

In every school work schedules require careful planning, due to the fact that labor needs vary. Eliminating wasted time and motion saves energy and reduces stress and strain (13). A work schedule gives confidence to employees thereby increasing their feeling of security. Labor hours are more productive and personnel "work smarter not harder" with detailed work schedules.

A well planned school lunch kitchen involves work simplification principles. Since most school lunch kitchens have been in existence for several years, few school lunch directors have had the opportunity to plan a new kitchen. Architectural planning is important in determining future student participation as well as requirements for equipment and staffing in the school (15) food center. Two helpful agencies are the

State (13) School Lunch Directors Office and the State Health Department.

Three types of School Lunch food preparation systems (13) are generally recognized. The central food preparation system is one in which meals for several schools are prepared in one kitchen. The meals are transported to the schools where they are served. The second system is the satellite food preparation system which involves a number of production kitchens. A production kitchen is located in a school building where meals are prepared and served to the students in that school, and also meals are prepared and transported to other schools in the vicinity. The individual unit preparation system prepares meals only for the students in its school. The Oklahoma School Lunch Division (13) recommends the use of the individual preparation unit unless circumstances dictate other needs. This method tends to keep costs low and create greater interest in nutrition education.

A kitchen layout should be planned with emphasis on principles of motion economy (13). The flow of material being processed needs to be continuous and direct with overall flow of work in a straight line. Mobile equipment should be used whenever possible.

It is recommended (19) that a basic school lunch kitchen layout designed to prepare 350 to 500 school lunches per day include the following facilities:

receiving area, waste holding area, dry food storage, rest-room and lockers, equipment storage room, walk-in cooler, 60 cubic foot freezer, a vegetable prep unit including peeler, range area with a slicer, steam jacketed kettle and mixers; bakery, serving line, dining room, dish washing area with disposal and one tank dish machine, and a pot and pan washing area.

Selection of equipment may be based on meeting essential needs, cost, performance, sanitation codes, and design.

Costly mistakes frequently made in layouts are: small work areas, poorly arranged, improper amounts of equipment, and inadequate provision for gas, electric, plumbing, ventilation and lighting systems. The choice of poor flooring results in costly maintenance and replacement. Any or each of these also may lead to increased labor costs.

In many schools and areas where the need is the greatest, local resources cannot provide the equipment needed for food service. The Child Nutrition Act of 1966 (20) authorizes Federal aid to help schools in poverty areas purchase equipment needed to establish, maintain and expand school food services. These schools then must take part in the National School Lunch Program.

Federal funds (20) for nonfood purchases are apportioned among the states to pay needy schools for up to three-fourths of the total price of equipment including installation charges. The remaining one-fourth must come from sources within the state. The amount of money each state receives is determined by the school lunch participation in the state and the state's per capita income.

There are some new trends in School Lunch, too. School food service programs represent (21) a large market for goods and services that demand the best quality at the lowest possible prices. Management firms are increasingly interested in school feeding (22), thus, this food management systems market may grow faster than expected.

Weiss (23) predicts that centralized operations for mass feeding in schools will become the trend of the future. As the pool of manual labor shrinks and labor problems such as poor talent, high turnover,

absenteeism, security problems, and waste occur, the possibility for automation arises. The potential cost savings with computerization and sophisticated distribution systems are almost incredible, states Weiss (23). Systems of this order, now in actual operation in a limited number of school districts, achieve savings exceeding 50%. The services include service packaging, on-site overnight storage and heating, plus waste disposal. Weiss (23) feels that precisely as airline feeding is controlled primarily by a handful of giant operators, so the school market will be serviced by giant complexes.

Processing of commodities also saves money for the nation's schools. Processing is now being emphasized more and more in the USDA's donated food program (24). Schools often lack facilities to make full use of donated commodities, but by working closely with their state distributing agents, schools can order foods frequently requested for their students by using state processors. The newest addition to the USDA donated food program is State Option and Cost Contracting, where USDA finds processors for donated turkey. In many instances, states report saving thousands of dollars by contracting with processors.

The benefit of the School Lunch Program is its adaption to feed the elderly, although one author does not agree. According to Roble (25), the solution of feeding the elderly should be based on the philosophy of maintaining the individuality of the Senior Citizens. Roble says, "They, too, are first class citizens and should not have to be limited to eating at 10:00 a.m. or 2:00 p.m. when the local lunchroom is not in use." He objects to the structured group requirements of feeding the elderly in existing school lunch facilities.

School lunchrooms do exist and are free during certain time periods, so until better facilities are recognized, the Administration on Aging (26) does support elderly feeding programs in schools. Other public sites are also acceptable if a concentration of eligible individuals live nearby, preferably within walking distance of the site.

An amendment to the Older American Act of 1965, Public Law 92-258, (27) stipulates guidelines for feeding the elderly:

Each local project must provide at least one hot meal per day, five or more days per week, and each such meal must assure a minimum of one-third of the daily recommended dietary allowances as established by the Food and Nutrition Board of the National Academy of Sciences, National Research Council.

The federal government will supply 90 percent of all funding, with each state required to pay 10 percent of its share; and each local agency must give 10 percent of the money it receives. State and local contributions must be from non-Federal sources.

Recipients of a grant of contract must agree to establish a nutrition project with the advice of persons competent in the fields of nutrition and services to the elderly. Where appropriate, provide home delivered meals to eligible individuals who are homebound and supply transportation between the project site and the residences of eligible individuals who would otherwise be unable to participate.

Provide participants with supportive services such as recreational activities, health and welfare counseling, and informational and referral services.

Utilize methods of outreach that will insure the maximum number of eligible individuals will have an opportunity to participate.

Provide special menus, where feasible and appropriate, to meet particular dietary needs arising from the health requirements, religious requirements or ethnic backgrounds of eligible individuals.

Presently, only Section 32 foods (27) are allowed in meal programs for the elderly, regardless of need. The State agency may, upon request of one or more schools, purchase agricultural commodities and other

foods to be provided to elderly nutrition projects assisted under allotment of funds. Legislation may be needed to make more donated foods available. Regulations may need to be changed to increase the variety of foods than can be made available to the elderly.

Keck (26) states it is important that preference be given to low income elderly individuals. Projects operated by and serving the needs of minority groups in proportion to their numbers in the state are also encouraged. The school lunch program is a vehicle by which the elderly are being brought together in central locations to receive many community services they need.

## CHAPTER III

### PROCEDURE

Information about possible interest in a feeding program for the elderly in Shawnee, Oklahoma, was received from the Oklahoma Department of Institution, Social and Rehabilitation Services' Nutritionist in Oklahoma City. Three Oklahoma State University graduate students majoring in Food, Nutrition and Institution Administration made an appointment with the nutritionist to obtain details. Possibilities for a graduate research project were discussed.

The Oklahoma Social and Rehabilitation Services was interested in having more information from Shawnee and encouraged the students to contact the Director of School Lunch in the Shawnee Public School System. It also was suggested that a survey in Morrison, Oklahoma, might be undertaken.

As a result of this visit, the District School Lunch Director for the Morrison area was contacted and a visit with the Morrison School Superintendent was arranged. The superintendent expressed a desire to have a survey to indicate interest in a noon meal for the elderly prepared in the school lunch.

The Director of Shawnee School Lunch was very interested in a similar survey and arrangements were made to visit the proposed survey area. Observations in the area revealed older people on porches and few children outside the houses in the area. The school that could

potentially serve the noon meal to the elderly was centrally located and within reasonable walking distance for many residents. It was concluded that this area had an elderly population that could be surveyed,

These contacts resulted in being able to draw some conclusions about developing a guide to feed the elderly in school lunch programs. A questionnaire was written by reviewing other questionnaire techniques and adapting them to the needs of this research. Three areas of concern covered by the questionnaire were:

1. Food consumed by the chosen elderly population in the previous 24 hours,
2. Conditions in the chosen elderly population relating to eating a school lunch or having it delivered to the homes.
3. Administrative procedures for making the meal available that could be defined at the time.

It was decided that the questionnaire should consist of multiple choice questions. Observable information including sex, ethnic background, body build, physical and mental conditions was noted by the interviewers. A code number was assigned each interviewee's questionnaire. This plan was used to facilitate compilation of the information for later data processing. Approval for securing survey information to be used in this thesis was received from the Superintendent of Schools, the School Lunch Director and the Chamber of Commerce of Shawnee, Oklahoma, and the Superintendent of Schools of Morrison, Oklahoma.

A statistician was consulted for advice in drawing the necessary sample from each town. It was decided to contact 100 people over 65 years of age or all houses in the survey areas in Shawnee and Morrison. The condition that was met first in each town would stop the survey.



Systematic sampling was completed by contacting every house on alternate streets.

The questionnaire was pre-tested by nine elderly members of the Community Center, Glencoe, Oklahoma. On the basis of their responses to the questions, adjustments were made in the survey questionnaire. The Glencoe questionnaire with an explanation of the revisions is included in Appendix A. The revised questionnaire used for this thesis is in Appendix B.

Each town's selected survey area had similar characteristics. The schools that possibly could be used to serve the elderly a school lunch were at a central position in the survey area. Each school had a street running North and South from the school building. These streets were used in each survey as a beginning point.

The Shawnee survey was conducted in an area which had experienced a decrease in public school enrollment. Census data (28) did not indicate a decrease in population. The assumption was made that an elderly population resided in the area to be surveyed.

The Shawnee area was trapezoidal-shaped and was bounded on the South side by the North Canadian River, on the North by the Oklahoma City, Ada and Atoka Railroad Line, on the East by the Atchison, Topeka and Santa Fe Railroad Line and on the West by U. S. Highway 177. A map shows the survey area in Appendix C.

In Morrison, the area was rectangular in shape and bounded on the South by U. S. Highway 64, on the North by the Morrison School and on the East and West by farm land. Since Morrison had a total population of about 250 people, an attempt was made to survey the entire elderly population.

All houses on alternate streets were contacted in the North-South direction, within the bounds of the survey. Then houses on alternate East-West streets were contacted, until all houses or 100 people over 65 years of age had been contacted in Shawnee and Morrison,

On alternating days the three graduate students formed a team of two interviewers to conduct interviews. One interviewer questioned the elderly person while the other one wrote the information on the questionnaire form. A resident at each house contacted was asked if any person 65 years of age or over lived there. If the answer was "yes", the interviewers routinely explained their identification; "We are graduate students in Home Economics from Oklahoma State University. May we ask you a few questions about the food you eat? If there was no resident 65 years of age or over, then the interviewers moved to another house. This procedure was followed until the sample data had been obtained. Six workdays were required to complete the Shawnee interviews, while one day was required to obtain the Morrison information.

The survey information was analyzed by using the "One-Way Frequency Count (Single-Digit)" computer program from the Oklahoma State University computer library. The output consisted of a frequency count table and corresponding percentage table for each set of data. Specific information secured included how all respondents answered questions concerning sex, age, interest in a meal at school, interest in a home-delivered meal, source of income, education level and health status.

Two of the graduate students, who are dietitians, conducted the interviews and spent two afternoons consulting with the Shawnee and Morrison school lunch personnel about the kitchen facilities.

The actual physical layouts of the Shawnee Washington Elementary School and the Morrison Schools cafeterias were measured and drawn to scale. The Shawnee cafeteria is set up to feed 250 students and Morrison cafeteria can feed the 380 enrollment of the entire Morrison School system. The Shawnee School kitchen is staffed with two employees and the Morrison Schools kitchen is staffed with four employees.

## CHAPTER IV

### RESULTS

The purpose of this research was to clarify needs of the elderly and develop a guide to utilize existing school lunch facilities to feed the elderly. A questionnaire (Appendix B) was developed by the three graduate students majoring in Food, Nutrition and Institution Administration to determine the interest of the elderly in eating lunch at school in the communities of Shawnee and Morrison, Oklahoma. Vital information about the potential participants was tabulated in categories of age, sex, food source, health status, transportation, source of income, education level, and interest in a lunch at school.

The parameter of the statistic sampling was when the 100th person out of an entire elderly population of 4157 (28) in Shawnee answered the questionnaire the survey was to be stopped. In Morrison an effort was made to contact all 35 elderly persons reported by the 1970 census data. The Morrison sample consisted of 13 persons. Perhaps others of the elderly population lived in the surrounding rural area.

The majority of the elderly persons interviewed were receptive to the graduate students. Those who did not answer the questionnaire were pleasant in their refusal. The ones that chose to answer the questionnaire were interested in the interviewers and the possible use of the information requested. They asked many questions of the interviewers such as: Are you from the Welfare? Do you know anything about getting

food stamps? What are you going to do with this information? Our answer was: "We are Oklahoma State University students collecting information to write a paper. The information will be given to the local Director of School Lunch."

The age span was 65 through 96 years for all people in Shawnee and Morrison who answered the questionnaire. Tabulation of the respondents by sex, revealed 43 males and 70 females. It is interesting to note that 61 persons out of the 113 interviewed were married and living with their spouses.

Twenty-six persons of the total sample completed less than a fourth grade education and 67 had fourth through eighth grade educations. Only two had attended college. It seemed that many of the respondents were embarrassed with their lack of education and offered explanations, such as "there was work to do when I was a child". The majority of the surveyed populations were long-time residents of the two towns.

The interviewers judged the physical and mental status of each person being interviewed by several questions and observations. This involved a value judgment. Seven people interviewed in Shawnee and three in Morrison could not walk or were blind. The mental state of two interviewees in Shawnee and one in Morrison was such that their presence at a meal could be disturbing to others. A home delivered meal could be an aid to these severely handicapped groups.

Thirty-three percent of the surveyed population had not contacted a doctor in over a year, while 38 percent had seen their doctor in the last month. No generalizations can be made about the health of the entire surveyed populations. Diets prescribed by doctors were followed by 23

of the elderly respondents. These diets were restricted to sodium, calories, fat, or food consumed.

Sixty-seven persons were taking prescribed medications. The number of prescriptions taken per respondent was not determined. Vitamin and mineral supplements were consumed by 52 elderly persons. The supplements unprescribed were largely from the patent medicine group.

Rigg (29), in her unpublished Master's thesis, reports that on the average these 52 elderly people did not receive an adequate diet from food consumed as based on the Recommended Daily Dietary Allowances. The nonprescription supplements which they were taking did not provide the extra nutrients required for adequate nutrition. Seventy percent of those surveyed felt their appetites were "good" or "too good". Fifty-one percent of those questioned said they had gastric trouble after eating some foods. The main problem according to 38 persons was digestive difficulties, not dental troubles. Only nine percent recognized a poor dental state as a cause of trouble in eating some foods.

The life style of the elderly respondents apparently affected their food procurement. Forty-three percent of 113 interviewees depended on relatives, friends or neighbors for transportation to a grocery store. In addition, nine said they took a taxi and thirteen walked to the stores to buy the food they ate. Therefore, it would seem that transportation to the grocery store poses a problem for the elderly interviewed.

Other sources of food were available to the persons interviewed. Eighteen reported they were receiving and using commodities. Fifty-three persons indicated they either grew a garden or friends shared home-grown foods with them. Other comments about food supplies made by the

respondents related to the possibilities of receiving "food stamps" in the future.

The question (Appendix B, Part III, Q.1) concerning income source revealed that thirty-five respondents lived solely on Social Security. Eleven gave retirement income, such as railroad pensions, as their only source of income; twelve lived entirely on Welfare; and two received a private source of income. Eight interviewees lived on a combination of Welfare and Social Security, while fourteen lived on retirement and Social Security. Nine indicated a private source of income in addition to Social Security, including holding part-time jobs. Fifteen responses could not be classified. These included businessmen as well as full-time workers and the unemployed who did not indicate a source of income.

#### Interest in Eating Meals Prepared by School Lunch

The most important question in relation to the objective of this study was "If a meal is available at the school cafeteria, how often would you be interested in eating there? (See Appendix B, Part II, Q.6.) This question received the responses shown in Figures 2 and 3.

Two percent of the 100 interviewees in Shawnee expressed interest in eating at the school cafeteria five days a week; six percent three days a week; 16 percent less than three days a week; and 76 percent not at all. In Morrison no elderly respondents of the 13 interviewed were interested in eating at the school cafeteria five days a week. One person expressed a desire to eat at school three days a week; five people said they would eat there less than three days a week and seven respondents were not interested in a school lunch program for the elderly.

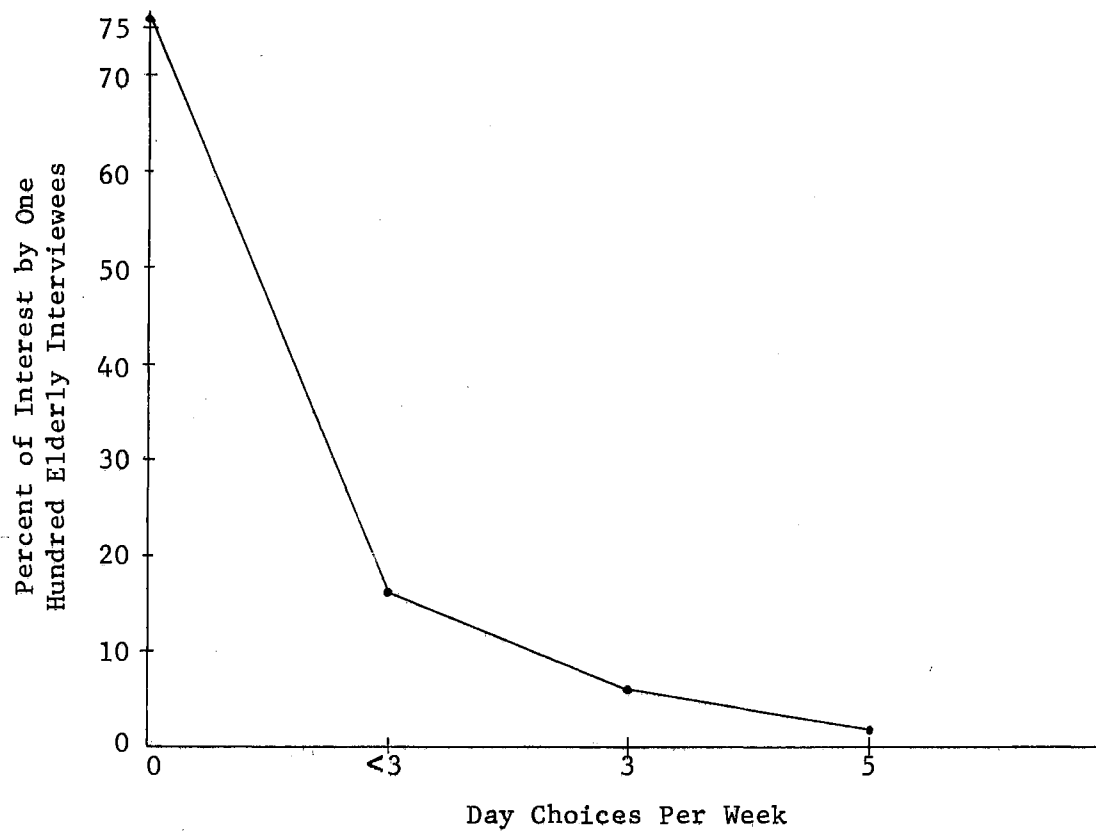


Figure 2. Interest in a Meal at School Lunch in Shawnee

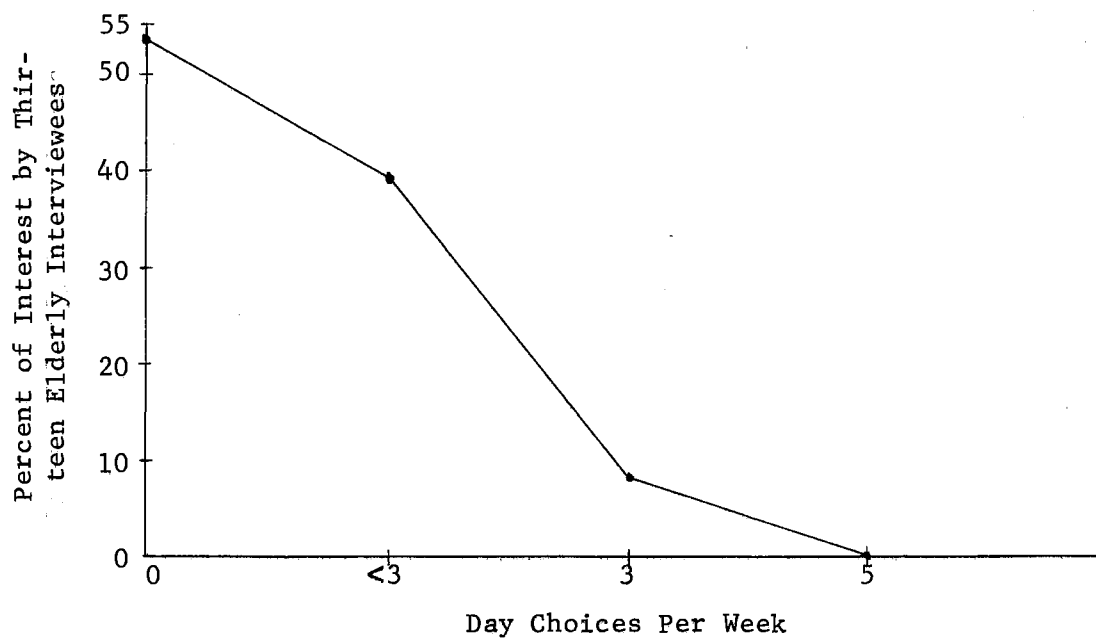


Figure 3. Interest in a Meal at School Lunch in Morrison



Only 14 percent of the entire survey population had heard of adults eating a meal at a school lunch, excluding teachers.

How did the two percent of the people in Shawnee who wanted to eat a School Lunch five days a week answer Part II (Appendix B) of the questionnaire? They were 70 and 71 year old females with no apparent physical or mental problems. Both said they would walk to the meal and both wanted to pay for it, one on a daily basis and the other monthly. No one in Morrison was interested in a School Lunch five days per week.

Significant characteristics of the 16 percent of the people in Shawnee who wanted to eat at school fewer than three days per week were that the group was made up of nine females and seven males with no observable physical or mental problems. Eight of this group indicated they would walk to the school, three reported they would drive, one indicated an intention to take a taxi and four reported they would ride with friends. Daily payment for meals would be convenient for nine, weekly payment for three and monthly payment for four. Eleven of the 16 were living on Social Security in combination with other income. Four sources of income could not be classified by the questionnaire.

In the Morrison survey, three females and two males of the 13 interviewed were interested in a meal at school fewer than three days per week. They would all walk to the school for the meal and pay for it then. Their sources of income were related to Social Security.

Interviewees in Shawnee who were not interested in school lunch at the time of the research (Appendix B, Part II, Q.10) but might find it useful at some later date numbered 21. They were not interested because 13 of them preferred to cook their meals and seven did not have transportation available. Over all, the 76 respondents in Shawnee who did

not want to eat lunch at the school gave these reasons for their decision: most preferred to cook their meals, one was on a special diet, twelve had no transportation available, two thought the meal would be too expensive, and twelve gave other reasons. In Morrison, five respondents perhaps interested in a meal in the future all preferred to cook for themselves.

A home delivered meal prepared by the School Lunch (Appendix B, Part II, Q.12) was considered. In Shawnee, 20 percent of the respondents had heard of hot noon meals being delivered to people confined to their homes. Sixty-five percent of the interviewees felt a delivered meal would help them. This group included 18 persons who had some difficulty, such as inability to walk the distance to the school, or mental problems. Herein lies data for another possible study. Five of the 13 persons interviewed in Morrison, felt that a home delivered meal might be useful to them at a time in the future. This included three physically limited individuals.

In Appendix D is a school lunch cycle menu for six weeks from the School Lunch Section Area Director's Office. It has been used as an example to show how simple modifications could adapt it to meet the elderly patron's needs. These modifications are also listed in Appendix D. Note that changes were made as additions to eliminate roughage and highly seasoned foods. For example, during Week VI on Tuesday apple-sauce would be offered as an optional dessert choice with a fresh apple wedge and during Week IV on Wednesday a pear and grated cheese salad would be offered as an optional choice with a sauerkraut salad.

These additional menu items would affect the kitchen production work load. Initially, the school lunch employees might oppose the changes,

but careful production planning by the lunch room manager could serve to motivate the workers. Entree item portions served to the elderly should provide three ounces of protein to meet RDA levels. Timing in daily kitchen work activity could be planned to meet the demands of an elderly feeding program.

#### Shawnee, Washington Elementary School

##### Cafeteria and Kitchen Layout

The present school kitchens in the respective surveys are illustrated in Figures 4 and 5. A second phase of this research was to recommend changes that should be considered for the lunchrooms in the Shawnee and Morrison Schools before feeding the elderly.

Recent remodeling in the Shawnee, Washington Elementary School cafeteria and kitchen was evident upon visiting the site. The kitchen is on ground level and easily accessible for elderly patrons. However, one drawback is the lack of a restroom on that floor level. If better arrangements could be made, it would benefit the children, possible elderly clientele and lunchroom employees. A hand sink should be placed in the kitchen. Generally the kitchen equipment and layout is such that it will adapt to the feeding of elderly people.

The dining area at the Shawnee School is well lighted and adequate. The tables fold for storage and have attached single no-back seats for ease in sitting. Folding chairs are also available for use. The overall arrangement is adequate for a kitchen designed to prepare meals for approximately 250 children. Those children are served on durable molded plastic trays. The trays would be advantageous for ease in carrying food for the elderly. China service could be investigated for elderly patrons use.

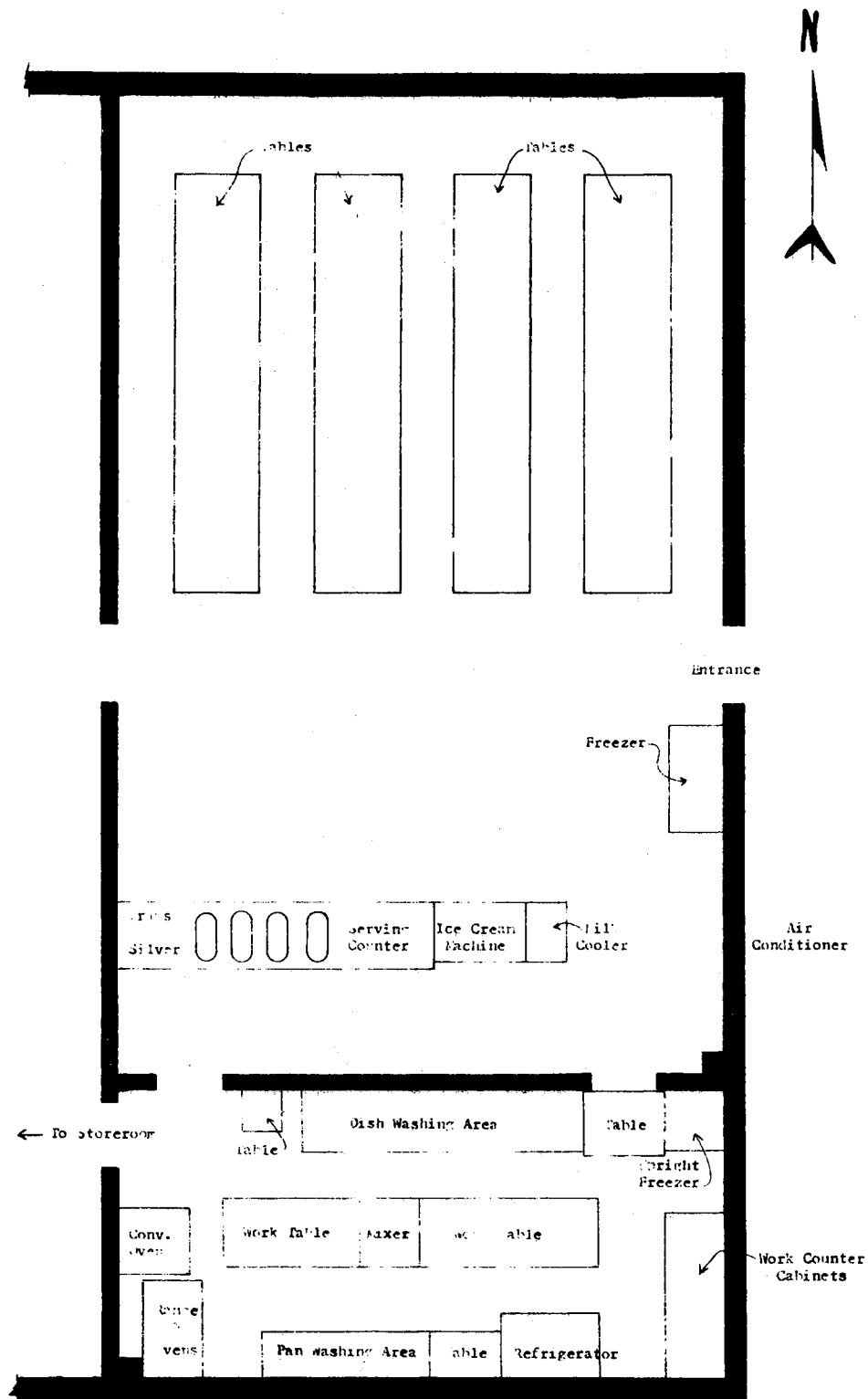


Figure 4. Shawnee, Washington Elementary School Cafeteria and Kitchen Layout

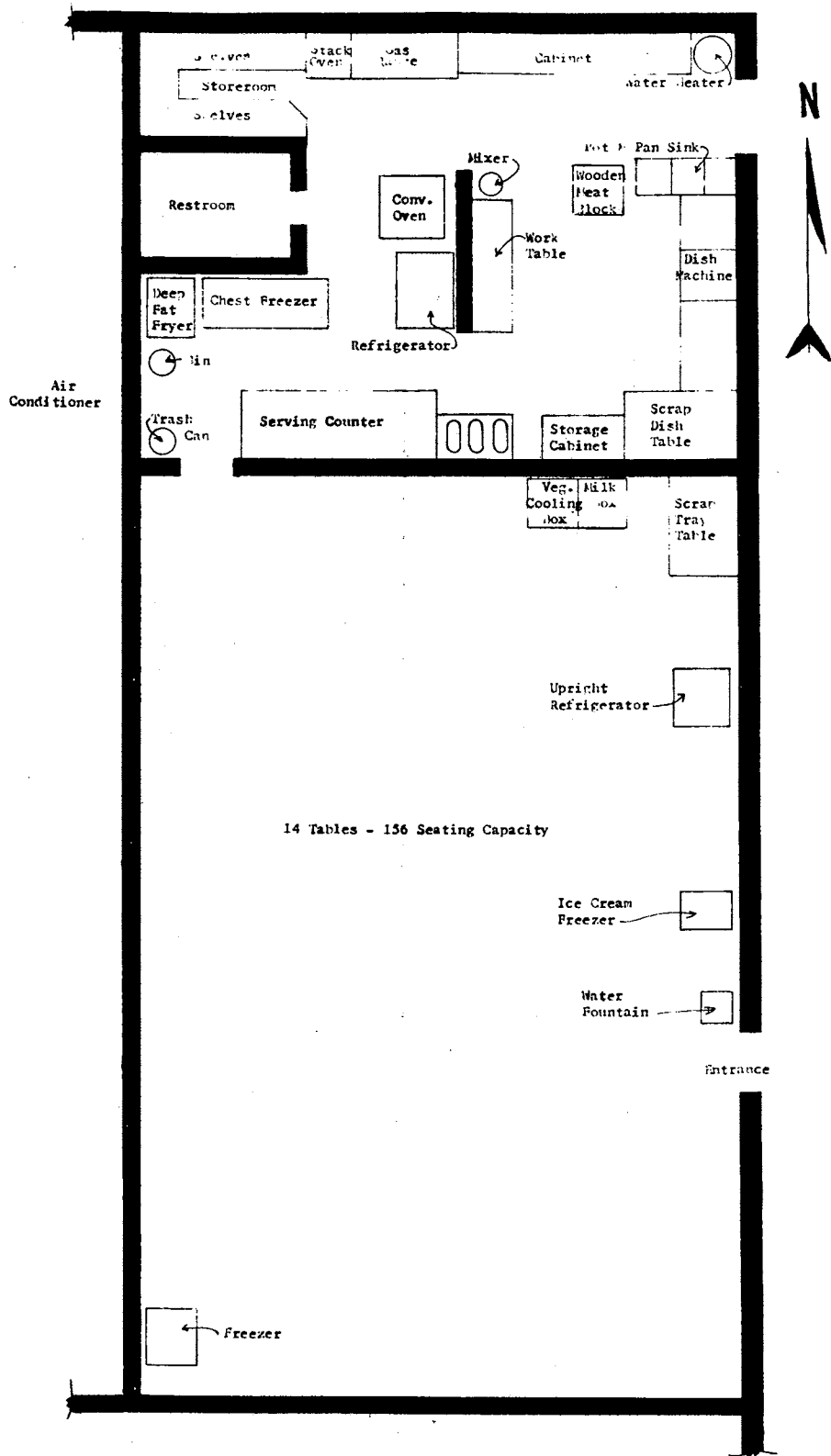


Figure 5. Morrison Schools, Cafeteria and Kitchen Layout

Morrison Schools, Cafeteris  
and Kitchen Layout

The Morrison Schools, cafeteria and kitchen layout is rather poorly arranged. It is an older kitchen lacking efficient layout for work flow. Labor use is not economical in such an area. The School Lunch Director's Office has guidelines to follow for planning facilities. Such guidelines would eliminate the wooden meat block (Figure 5) for sanitary practices. Removal of the upper half of the wall next to the work table in the center of the kitchen would make supervision of the kitchen less difficult. Health inspection guidelines recommend a wall be maintained in a restroom so the outside door does not open directly into a kitchen. A hand sink should be placed in this kitchen.

Refrigerator and freezer units are scattered throughout the layout. The amount of units may be due to lack of transportation and storage in the small rural town. Electrical outlets could dictate the unit placement. Refrigerated storage space should be convenient to the receiving area and adjacent to the food preparation center in the kitchen. The amount of storage in the Morrison kitchen is not adequate for the number of children presently served. Overall remodeling should be considered by the school administration on the recommendation of the District Director of School Lunch.

The Morrison Schools dining area is large, but the table types and sizes vary making the room appear cluttered. Uniform tables are desirable. A desirable aspect of these facilities for an elderly feeding program is that the unit is on the ground floor. Serving utensil recommendations are identical to the Shawnee School situation.

## CHAPTER V

### CONCLUSIONS AND SUMMARY

The time is coming when more than half of the United States population will be over the age of 65. The number of people over 65 will rise sharply as the "baby boom" becomes an "elderly boom" after the turn of the century. This is going to have a major impact on many institutions and customs. The institution of school lunch has been depended upon to provide good nutrition for children. This service is now being extended to the elderly in some communities. A guide to utilize existing school lunch facilities to feed the elderly is necessary for organized planning in the field of school lunch. Possibilities do exist for feeding the elderly in school lunch programs in Shawnee and Morrison, Oklahoma. This thesis research indicates that a majority of an elderly population did feel that a meal at school lunch could be useful in the future. It is recommended that a pilot school lunch program for the elderly be undertaken in both Oklahoma communities in preparation for the future.

The 24 persons in Shawnee and six persons in Morrison who were interested in a meal at school lunch should be contacted to participate in separate pilot studies. Participation by other elders could be encouraged by mailing notification of the programs. A decision must be made concerning feeding any person residing with a program respondent.

The charges for the meals should be kept at a minimum as incomes of the surveyed population were low and from a fixed source. The School Lunch Director should have the responsibility of relating the charges to the local school budget. Payment for the meal on a daily, weekly or monthly basis is recommended in accord with the responses of elderly individuals to the questionnaire (Appendix B, Part II, Q.5). A method of payment should be worked out between the school lunch officials and the elderly.

The transportation to the meal at school could be a problem for many of the elderly surveyed. Means of transportation should be provided to each pilot participant. The solution could be a sharing of car pools by volunteer aides.

Any nutrition or community education projects should be developed at the junior-high level as the education level of the surveyed groups averaged below eighth grade. The social implications of a home delivered meal are not advantageous but the majority of the interviewees felt this service would help them. This could be investigated after a pilot study has indicated acceptance by the elderly and the communities. A home delivered meal would involve planning for serving containers, transportation, and additional help.

School lunch management personnel will bear the responsibility of the decisions involved in implementing a program to feed the elderly. Serving time could be after the students have eaten. The staffing requirements will most probably require a few more hours in employee work schedules.

In conclusion, the questionnaire used for this thesis research gave valuable information about the elderly. Experience in working with the questionnaire brought out errors in it. Some suggested adjustments in Appendix B by the author are recommended.



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APPENDIXES

APPENDIX A

GLENCOE QUESTIONNAIRE AND EXPLANATION OF  
ADJUSTMENTS IN GLENCOE QUESTIONNAIRE

CODE \_\_\_\_\_

## QUESTIONNAIRE \_\_\_\_\_ PART I

NAME: \_\_\_\_\_ CITY: \_\_\_\_\_ PHONE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_ F: \_\_\_\_\_ M: \_\_\_\_\_

\_\_\_\_\_ 1. Do you eat most of your meals:

1. alone
2. with spouse
3. with friends
4. with relatives

\_\_\_\_\_ 2. What foods do you usually eat between 5 a.m. and 10 a.m.?

NO.	FOODS	SERVINGS			
_____	Fruit juices (_____)	1	2	3	4
_____	Fruit (_____)	1	2	3	4
_____	Cooked vegetables (_____)	1	2	3	4
_____	Raw veg.-salads (_____)	1	2	3	4
_____	Potatoes (_____)	1	2	3	4
_____	Meat (_____)	1	2	3	4
_____	Poultry (_____)	1	2	3	4
_____	Fish-shell fish (_____)	1	2	3	4
_____	Eggs (_____)	1	2	3	4
_____	Dry beans or peas (_____)	1	2	3	4
_____	Peanut butter or nuts (_____)	1	2	3	4
_____	Milk (_____)	1	2	3	4
_____	Cream (_____)	1	2	3	4
_____	Cheese (_____)	1	2	3	4
_____	Ice cream (_____)	1	2	3	4
_____	Milk desserts (_____)	1	2	3	4
_____	Bread (_____)	1	2	3	4
_____	Pastas (_____)	1	2	3	4
_____	Cereal (_____)	1	2	3	4
_____	Pies (_____)	1	2	3	4
_____	Cakes (_____)	1	2	3	4
_____	Cookies (_____)	1	2	3	4
_____	Crackers (_____)	1	2	3	4
_____	Rolls (_____)	1	2	3	4
_____	Butter or margarine (_____)	1	2	3	4
_____	Cooking fats or oils (_____)	1	2	3	4
_____	Salad dressings (_____)	1	2	3	4
_____	Jams, jellies, candy (_____)	1	2	3	4
_____	Syrup, honey, molasses, sugar (_____)	1	2	3	4
_____	Beverages (_____)	1	2	3	4
_____	Flavored gelatin (_____)	1	2	3	4
_____	Soup (_____)	1	2	3	4

CODE \_\_\_\_\_

\_\_\_\_\_. What foods do you usually eat between \_\_\_\_\_ and \_\_\_\_\_.

NO.	FOODS	SERVINGS			
		1	2	3	4
_____	Fruit juices (_____)	1	2	3	4
_____	Fruit (_____)	1	2	3	4
_____	Cooked vegetables (_____)	1	2	3	4
_____	Raw veg.-salads (_____)	1	2	3	4
_____	Potatoes (_____)	1	2	3	4
_____	Meat (_____)	1	2	3	4
_____	Poultry (_____)	1	2	3	4
_____	Fish-shell fish (_____)	1	2	3	4
_____	Eggs (_____)	1	2	3	4
_____	Dry beans or peas (_____)	1	2	3	4
_____	Peanut butter or nuts (_____)	1	2	3	4
_____	Milk (_____)	1	2	3	4
_____	Cream (_____)	1	2	3	4
_____	Cheese (_____)	1	2	3	4
_____	Ice cream (_____)	1	2	3	4
_____	Milk desserts (_____)	1	2	3	4
_____	Bread (_____)	1	2	3	4
_____	Pastas (_____)	1	2	3	4
_____	Cereals (_____)	1	2	3	4
_____	Pies (_____)	1	2	3	4
_____	Cakes (_____)	1	2	3	4
_____	Cookies (_____)	1	2	3	4
_____	Crackers (_____)	1	2	3	4
_____	Rolls (_____)	1	2	3	4
_____	Butter or margarine (_____)	1	2	3	4
_____	Cooking fats or oils (_____)	1	2	3	4
_____	Salad dressing (_____)	1	2	3	4
_____	Jams, jellies, candy (_____)	1	2	3	4
_____	Syrup, honey, molasses, sugar (_____)	1	2	3	4
_____	Beverages (_____)	1	2	3	4
_____	Flavored gelatin (_____)	1	2	3	4
_____	Soup (_____)	1	2	3	4
_____	Bacon (_____)	1	2	3	4
_____	Nothing eaten (_____)	1	2	3	4

CODE \_\_\_\_\_

- \_\_\_\_\_ 5. Would you say that the preceding comments about food represents your usual eating pattern?  
1. Yes  
2. No
- \_\_\_\_\_ 6. Do your food habits change on the weekends?  
1. Yes  
2. No
- \_\_\_\_\_ 7. If your answer to number 6 is yes, then in what ways do your eating patterns change? \_\_\_\_\_
- \_\_\_\_\_ 8. Would you say your appetite is:  
1. Poor  
2. Fair  
3. Good  
4. Too good
- \_\_\_\_\_ 9. Do you have trouble eating any foods (e.g., corn on the cob)?  
1. Yes  
2. No
- \_\_\_\_\_ 10. If your answer to number 9 is yes, then what is it that causes the eating problem?  
1. Dentures  
2. Poor digestion  
3. No teeth  
4. \_\_\_\_\_
- \_\_\_\_\_ 11. When was the last time you saw a doctor?  
1. Last week  
2. Last month  
3. Six months ago  
4. One year ago  
5. Over one year ago
- \_\_\_\_\_ 12. Are you now on a special diet prescribed by a doctor?  
1. Yes  
2. No
- \_\_\_\_\_ 13. What type of diet are you on? \_\_\_\_\_
- \_\_\_\_\_ 14. Are you taking any medication?  
1. Yes  
2. No
- \_\_\_\_\_ 15. What tpe of medication are you taking? \_\_\_\_\_
- \_\_\_\_\_ 16. Are you taking vitamin or mineral supplements?  
1. Yes  
2. No

CODE \_\_\_\_\_

- \_\_\_\_ 17. What kind of supplements are you taking? \_\_\_\_\_
- \_\_\_\_ 18. Is it easy for you to get to the grocery store?  
 1. Yes  
 2. No
- \_\_\_\_ 19. How do you get to the grocery store?  
 1. Walk  
 2. Drive  
 3. Take a taxi  
 4. Call for delivery  
 5. Go with relatives  
 6. Go with friends and neighbors
- \_\_\_\_ 20. Do you have a source of food other than the grocery store?  
 1. Garden  
 2. Friends  
 3. Family  
 4. \_\_\_\_\_
- \_\_\_\_ 21. How often do you exercise?  
 1. Daily  
 2. Every other day  
 3. Weekly  
 4. \_\_\_\_\_
- \_\_\_\_ 22. What are your present activities?  
 1. Housework  
 2. Gardening  
 3. Walking  
 4. Babysit  
 5. Hobbies \_\_\_\_\_  
 6. \_\_\_\_\_

## QUESTIONNAIRE \_\_\_\_\_ PART II

- \_\_\_\_ 1. Do you know anyone who has eaten at school lunch?  
 1. Yes  
 2. No
- \_\_\_\_ 2. What is your impression of school lunch?  
 1. It is convenient  
 2. It is expensive  
 3. The food is appealing  
 4. No opinion  
 5. \_\_\_\_\_
- \_\_\_\_ 3. Have you heard of school lunch programs that serve meals to adults at a special time each day?  
 1. Yes  
 2. No



CODE \_\_\_\_\_

- \_\_\_\_ 4. A program such as this could be offered at no charge or at a minimal charge. Which would you prefer?
1. No charge
  2. Minimal charge
- \_\_\_\_ 5. If there was a minimal charge, when would it be most convenient for you to pay the charge?
1. Daily
  2. Weekly
  3. Monthly
- \_\_\_\_ 6. If available, how often would you be interested in eating a noon meal at a school cafeteria?
1. Five days a week
  2. Three days a week
  3. Less than three days a week
  4. Not at all
- \_\_\_\_ 7. Would it be easy for you to reach \_\_\_\_\_ school which is \_\_\_\_\_ blocks away?
1. Yes
  2. No
- \_\_\_\_ 8. How would you get to a noon meal at the school lunch?
1. Walk
  2. Drive
  3. Take a taxi
  4. Ride with a friend
- \_\_\_\_ 9. Would a meal at the school lunch be useful to you at a later date?
1. Yes
  2. No
- \_\_\_\_ 10. Have you heard of a hot noon meal being delivered to people confined to their homes?
1. Yes
  2. No
- \_\_\_\_ 11. Do you think that such a delivered meal would help you?
1. Yes
  2. No

## QUESTIONNAIRE \_\_\_\_\_ PART III

- \_\_\_\_ 1. Please tell us generally your total yearly income.
1. Below \$2,000
  2. \$2,000 - \$3,000
  3. \$3,000 - \$5,000
  4. Over \$5,000
  5. No response

CODE \_\_\_\_\_

- \_\_\_\_\_ 2. What is your main source of income?  
 1. Social security  
 2. Retirement  
 3. Welfare  
 4. \_\_\_\_\_
- \_\_\_\_\_ 3. Approximately how much of your income do you spend on food weekly? \_\_\_\_\_
- \_\_\_\_\_ 4. What year were you born? \_\_\_\_\_
- \_\_\_\_\_ 5. Where were you born?  
 1. Oklahoma  
 2. \_\_\_\_\_
- \_\_\_\_\_ 6. How long have you lived in this town? \_\_\_\_\_
- \_\_\_\_\_ 7. Are you now:  
 1. Married  
 2. Single  
 3. Widowed  
 4. Divorced  
 5. Separated
- \_\_\_\_\_ 8. Which most nearly describes the number of school years you completed?  
 1. Less than 4th grade  
 2. Fourth - eighth  
 3. Ninth - twelfth  
 4. High school graduate  
 5. Attended college  
 6. College graduate
- \_\_\_\_\_ 9. Is there any way you can be reached by phone?  
 1. Yes How? \_\_\_\_\_  
 2. No
- \_\_\_\_\_ 10. Note racial ethnic group.  
 1. Mexican American  
 2. Black American  
 3. American Indian  
 4. Oriental  
 5. \_\_\_\_\_
- \_\_\_\_\_ 11. Note interviewee's physical condition.  
 1. Excellent  
 2. Good  
 3. Fair  
 4. Poor  
 5. Disabled  
 6. \_\_\_\_\_

CODE \_\_\_\_\_

- \_\_\_\_ 12. Note interviewee's mental condition.
1. Excellent
  2. Good
  3. Fair
  4. Poor
  5. Totally dis-oriented
- \_\_\_\_ 13. Do you have neighbors about your age?
1. Yes
  2. No
- \_\_\_\_ 14. Would you mind if we came again and visited with you?
1. Yes
  2. No

Explanation of Adjustments in  
Glencoe Questionnaire

The preceding questionnaire was administered at the Community Center in Glencoe, Oklahoma to nine members by two of the interviewers. The following adjustments were made in the questionnaire to make it more usable when administered in Shawnee and Morrison, Oklahoma.

PART I

Question 10. Because teeth in poor repair were observed among the elderly interviewed, the statement "Teeth in poor repair" was added as a possible answer.

Question 20. As a result of the Glencoe responses, it was evident that "Commodities" were a significant source of food stuff and the term was added.

PART II

Question 3. The word "adult" was changed to "people your age" because "adult" to the elderly meant teachers and parents of children in school.

Added Question. "If not at all interested, why?" became Question 7 in the revised questionnaire, because knowledge of why the elderly were not interested in a meal at school lunch would not be obtained.

PART III

Question 1. This question was eliminated because dollar value of yearly income apparently was not significant.

Question 2. This question was expanded to include the more varied sources and combinations of income that were reported in Glencoe and became Question 1.

Question 3. It was observed that the added category of "monthly" was needed.

Question 6. To evaluate answers to this question when using the computer, it was decided to divide the answers into spans of years.

Questions 10, 11, 12. The form of these questions was changed because in Glencoe, some respondents were reading the questions as the interviewers checked them. Therefore, it was considered better to code judgments of this nature. Coding was accomplished by using the top right corner of the front page of the questionnaire in the following manner:

C\_\_\_\_\_ was used to number the interviewee.

P\_\_\_\_\_ represented interviewee's physical condition with numbers being assigned: 1. Good, 2. Fair, 3. Poor, 4. Disabled.

M\_\_\_\_\_ represented the interviewee's mental state with numbers being assigned: 1. Good, 2. Fair, 3. Poor, 4. Totally disoriented.

E\_\_\_\_\_ represented ethnic background with the following numbers being assigned: 1. White, 2. Indian, 3. Black, 4. Other.

Added Code Information

B \_\_\_\_\_ was used to denote "build" of persons being interviewed, with the following numbers assigned: 1. Slight, 2. Medium, 3. Stocky, 4. Obese.

Question 13. This question became Question 9 in the revised questionnaire and "over 65" was used as a guide to age of neighbors. This was clarified because "about your age" did not reflect the total population sought in this study when talking to an 80 year old person.

APPENDIX B

MORRISON, SHAWNEE QUESTIONNAIRE AND  
RECOMMENDED ADJUSTMENTS IN  
MORRISON, SHAWNEE  
QUESTIONNAIRE

C P M E B

## QUESTIONNAIRE PART I

NAME: \_\_\_\_\_ CITY: \_\_\_\_\_ PHONE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_ F: \_\_\_\_\_ M: \_\_\_\_\_

\_\_\_\_ 1. Do you eat most of your meals:

1. Alone
2. With spouse
3. With friends
4. With relatives

\_\_\_\_ 2. What foods do you usually eat between 5 a.m. and 10 a.m.?

NO.	FOODS	SERVINGS			
___	Fruit juices (_____)	1	2	3	4
___	Fruit (_____)	1	2	3	4
___	Cooked vegetables (_____)	1	2	3	4
___	Raw veg.-salads (_____)	1	2	3	4
___	Potatoes (_____)	1	2	3	4
___	Meat (_____)	1	2	3	4
___	Poultry (_____)	1	2	3	4
___	Fish - shellfish (_____)	1	2	3	4
___	Eggs (_____)	1	2	3	4
___	Dry beans or peas (_____)	1	2	3	4
___	Milk (_____)	1	2	3	4
___	Cream (_____)	1	2	3	4
___	Cheese (_____)	1	2	3	4
___	Ice cream (_____)	1	2	3	4
___	Milk desserts (_____)	1	2	3	4
___	Bread (_____)	1	2	3	4
___	Pastas (_____)	1	2	3	4
___	Cereal (_____)	1	2	3	4
___	Pies (_____)	1	2	3	4
___	Cakes (_____)	1	2	3	4
___	Cookies (_____)	1	2	3	4
___	Crackers (_____)	1	2	3	4
___	Rolls (_____)	1	2	3	4
___	Butter or margarine (_____)	1	2	3	4
___	Cooking fats or oils (_____)	1	2	3	4
___	Salad dressing (_____)	1	2	3	4
___	Jam, jellies, candy (_____)	1	2	3	4
___	Syrup, honey, molasses, sugar (_____)	1	2	3	4
___	Beverages (_____)	1	2	3	4
___	Flavored gelatin (_____)	1	2	3	4
___	Soup (_____)	1	2	3	4
___	Bacon (_____)	1	2	3	4
___	Nothing eaten				



CODE \_\_\_\_\_

\_\_\_\_\_. What foods do you usually eat between \_\_\_\_\_ and \_\_\_\_\_?

NO.	FOODS	SERVINGS			
		1	2	3	4
_____	Fruit juices ( _____ )	1	2	3	4
_____	Fruit ( _____ )	1	2	3	4
_____	Cooked vegetables ( _____ )	1	2	3	4
_____	Raw veg.-salads ( _____ )	1	2	3	4
_____	Potatoes ( _____ )	1	2	3	4
_____	Meat ( _____ )	1	2	3	4
_____	Poultry ( _____ )	1	2	3	4
_____	Fish - shellfish ( _____ )	1	2	3	4
_____	Eggs ( _____ )	1	2	3	4
_____	Dry beans or peas ( _____ )	1	2	3	4
_____	Peanut butter or nuts ( _____ )	1	2	3	4
_____	Milk ( _____ )	1	2	3	4
_____	Cream ( _____ )	1	2	3	4
_____	Cheese ( _____ )	1	2	3	4
_____	Ice cream ( _____ )	1	2	3	4
_____	Milk desserts ( _____ )	1	2	3	4
_____	Bread ( _____ )	1	2	3	4
_____	Pastas ( _____ )	1	2	3	4
_____	Cereals ( _____ )	1	2	3	4
_____	Pies ( _____ )	1	2	3	4
_____	Cakes ( _____ )	1	2	3	4
_____	Cookies ( _____ )	1	2	3	4
_____	Crackers ( _____ )	1	2	3	4
_____	Rolls ( _____ )	1	2	3	4
_____	Butter or margarine ( _____ )	1	2	3	4
_____	Cooking fats or oils ( _____ )	1	2	3	4
_____	Salad dressing ( _____ )	1	2	3	4
_____	Jams, jellies, candy ( _____ )	1	2	3	4
_____	Syrup, honey, molasses, sugar ( _____ )	1	2	3	4
_____	Beverages ( _____ )	1	2	3	4
_____	Flavored gelatin ( _____ )	1	2	3	4
_____	Soup ( _____ )	1	2	3	4
_____	Bacon ( _____ )	1	2	3	4
_____	Nothing eaten				

CODE \_\_\_\_\_

\_\_\_\_\_. What foods do you usually eat between \_\_\_\_\_ and \_\_\_\_\_ ?

NO.	FOODS	SERVINGS			
		1	2	3	4
_____	Fruit juices (_____)	1	2	3	4
_____	Fruit (_____)	1	2	3	4
_____	Cooked vegetables (_____)	1	2	3	4
_____	Raw veg.-salads (_____)	1	2	3	4
_____	Potatoes (_____)	1	2	3	4
_____	Meat (_____)	1	2	3	4
_____	Poultry (_____)	1	2	3	4
_____	Fish - shellfish (_____)	1	2	3	4
_____	Eggs (_____)	1	2	3	4
_____	Dry beans or peas (_____)	1	2	3	4
_____	Peanut butter or nuts (_____)	1	2	3	4
_____	Milk (_____)	1	2	3	4
_____	Cream (_____)	1	2	3	4
_____	Cheese (_____)	1	2	3	4
_____	Ice cream (_____)	1	2	3	4
_____	Milk desserts (_____)	1	2	3	4
_____	Bread (_____)	1	2	3	4
_____	Pastas (_____)	1	2	3	4
_____	Cereals (_____)	1	2	3	4
_____	Pies (_____)	1	2	3	4
_____	Cakes (_____)	1	2	3	4
_____	Cookies (_____)	1	2	3	4
_____	Crackers (_____)	1	2	3	4
_____	Rolls (_____)	1	2	3	4
_____	Butter or margarine (_____)	1	2	3	4
_____	Cooking fats or oils (_____)	1	2	3	4
_____	Salad dressing (_____)	1	2	3	4
_____	Jams, jellies, candy (_____)	1	2	3	4
_____	Syrup, honey, molasses, sugar (_____)	1	2	3	4
_____	Beverages (_____)	1	2	3	4
_____	Flavored gelatin (_____)	1	2	3	4
_____	Soup (_____)	1	2	3	4
_____	Bacon (_____)	1	2	3	4
_____	Nothing eaten				

CODE \_\_\_\_\_

\_\_\_\_\_. What foods do you usually eat between \_\_\_\_\_ and \_\_\_\_\_?

NO.	FOODS	SERVINGS			
		1	2	3	4
_____	Fruit juices (_____)	1	2	3	4
_____	Fruit (_____)	1	2	3	4
_____	Cooked vegetables (_____)	1	2	3	4
_____	Raw veg.-salads (_____)	1	2	3	4
_____	Potatoes (_____)	1	2	3	4
_____	Meat (_____)	1	2	3	4
_____	Poultry (_____)	1	2	3	4
_____	Fish - shellfish (_____)	1	2	3	4
_____	Eggs (_____)	1	2	3	4
_____	Dry beans or peas (_____)	1	2	3	4
_____	Peanut butter or nuts (_____)	1	2	3	4
_____	Milk (_____)	1	2	3	4
_____	Cream (_____)	1	2	3	4
_____	Cheese (_____)	1	2	3	4
_____	Ice cream (_____)	1	2	3	4
_____	Milk desserts (_____)	1	2	3	4
_____	Bread (_____)	1	2	3	4
_____	Pastas (_____)	1	2	3	4
_____	Cereals (_____)	1	2	3	4
_____	Pies (_____)	1	2	3	4
_____	Cakes (_____)	1	2	3	4
_____	Cookies (_____)	1	2	3	4
_____	Crackers (_____)	1	2	3	4
_____	Rolls (_____)	1	2	3	4
_____	Butter or margarine (_____)	1	2	3	4
_____	Cooking fats or oils (_____)	1	2	3	4
_____	Salad dressing (_____)	1	2	3	4
_____	Jams, jellies, candy (_____)	1	2	3	4
_____	Syrup, honey, molasses, sugar (_____)	1	2	3	4
_____	Beverages (_____)	1	2	3	4
_____	Flavored gelatin (_____)	1	2	3	4
_____	Soup (_____)	1	2	3	4
_____	Bacon (_____)	1	2	3	4
_____	Nothing eaten				

CODE \_\_\_\_\_

- \_\_\_\_\_ 6. Would you say that the preceding comments about food represents your usual eating pattern?  
1. Yes  
2. No
- \_\_\_\_\_ 7. Do your food habits change on the weekends?  
1. Yes  
2. No
- \_\_\_\_\_ 8. If your answer to number 7 is yes, then in what ways do your eating patterns change? \_\_\_\_\_  
\_\_\_\_\_
- \_\_\_\_\_ 9. Would you say your appetite is:  
1. Poor  
2. Fair  
3. Good  
4. Too good
- \_\_\_\_\_ 10. Do you have trouble eating any foods (e.g., corn on the cob)?  
1. Yes  
2. No
- \_\_\_\_\_ 11. If your answer to number 10 is yes, then what is it that causes the eating problems?  
1. Dentures  
2. Poor digestion  
3. No teeth  
4. Teeth in poor repair  
5. \_\_\_\_\_
- \_\_\_\_\_ 12. When was the last time you saw a doctor?  
1. Last week  
2. Last month  
3. Six months ago  
4. One year ago  
5. Over one year ago
- \_\_\_\_\_ 13. Are you now on a special diet prescribed by a doctor?  
1. Yes  
2. No
- \_\_\_\_\_ 14. What type diet are you on? \_\_\_\_\_
- \_\_\_\_\_ 15. Are you taking medication now?  
1. Yes  
2. No
- \_\_\_\_\_ 16. What type medication are you taking? \_\_\_\_\_

CODE \_\_\_\_\_

- \_\_\_\_ 17. Are you taking vitamin or mineral supplements?  
 1. Yes  
 2. No
- \_\_\_\_ 18. What kind of supplements are you taking? \_\_\_\_\_
- \_\_\_\_ 19. Is it easy for you to get to the grocery store?  
 1. Yes  
 2. No
- \_\_\_\_ 20. How do you get to the grocery store?  
 1. Walk  
 2. Drive  
 3. Take a taxi  
 4. Call for delivery  
 5. Go with relatives  
 6. Go with friend or neighbor
- \_\_\_\_ 21. Do you have a source of food other than the grocery store?  
 1. Garden  
 2. Friends  
 3. Family  
 4. Commodities  
 5. \_\_\_\_\_
- \_\_\_\_ 22. How often do you exercise?  
 1. Daily  
 2. Every other day  
 3. Weekly  
 4. \_\_\_\_\_
- \_\_\_\_ 23. What are your present activities?  
 1. Housework  
 2. Gardening  
 3. Walking  
 4. Babysit  
 5. Hobbies  
 6. \_\_\_\_\_

## QUESTIONNAIRE \_\_\_\_\_ PART II

- \_\_\_\_ 1. Do you know anyone who has eaten at school lunch?  
 1. Yes  
 2. No
- \_\_\_\_ 2. What is your impression of school lunch?  
 1. It is convenient  
 2. It is expensive  
 3. The food is appealing  
 4. No opinion  
 5. \_\_\_\_\_
- \_\_\_\_ 3. Have you heard of school lunch programs that served meals to people your age at a special time each day?  
 1. Yes  
 2. No
- \_\_\_\_ 4. A program such as this could be offered at no charge or at a minimal charge. Which would you prefer?  
 1. No charge  
 2. Minimal charge

CODE \_\_\_\_\_

- \_\_\_\_\_ 5. If there was a minimal charge, when would it be most convenient for you to pay the charge?
1. Daily
  2. Weekly
  3. Monthly
- \_\_\_\_\_ 6. If available, how often would you be interested in eating a noon meal at a school cafeteria?
1. Five days a week
  2. Three days a week
  3. Less than three days a week
  4. Not at all
- \_\_\_\_\_ 7. If not at all interested, why?
1. Prefer to cook
  2. On a special diet
  3. No transportation
  4. Too expensive
  5. \_\_\_\_\_
- \_\_\_\_\_ 8. Would it be easy for you to reach \_\_\_\_\_ school which is \_\_\_\_\_ blocks away?
1. Yes
  2. No
- \_\_\_\_\_ 9. How would you get to a noon meal at the school lunch?
1. Walk
  2. Drive
  3. Take a taxi
  4. Ride with a friend
- \_\_\_\_\_ 10. Would a meal at the school lunch be useful to you at a later date?
1. Yes
  2. No
- \_\_\_\_\_ 11. Have you heard of a hot noon meal being delivered to people confined to their homes?
1. Yes
  2. No
- \_\_\_\_\_ 12. Do you think that such a delivered meal would help you?
1. Yes
  2. No

## QUESTIONNAIRE \_\_\_\_\_ PART III

- \_\_\_\_\_ 1. What is your source of income?
1. Social security
  2. Retirement
  3. Welfare
  4. Private source of income
  5. Social security and welfare
  6. Retirement and social security
  7. Private source of income and social security
  8. \_\_\_\_\_



## Recommended Adjustments in Morrison-Shawnee

## Questionnaire

Experience using the preceeding questionnaire resulted in the following recommendations for changes:

## PART I.

Question 12. This question could record more information if a check of kind of doctor seen is included, i.e., medical, dental, eye, other. This could give a better indication of total physical state of the individual.

Question 15. The word "medication" is broadly interpreted by the public to include patent medicine. Maybe "prescribed medication" would be a better term. How many of the prescribed medicines are being taken also could be useful information.

Question 23. An added category of "no activity" might provide revealing data.

## PART II.

Question 2. The people questioned were skeptical of the motive behind this question, therefore, many chose to have "No Opinion". If this question is retained, special efforts should be made to put the respondents at ease, so that they really give their impression of school lunch.

Question 4. Add "No Opinion" to the possible answers and add space for comments.

Question 6. The sequence of questions seems "off" at this point.

Question 6 might fit better after Question 3.



Question 12. This question would be more useful tabulated for:

Now \_\_\_ Yes \_\_\_ No \_\_\_, Later \_\_\_ Yes \_\_\_ No \_\_\_.

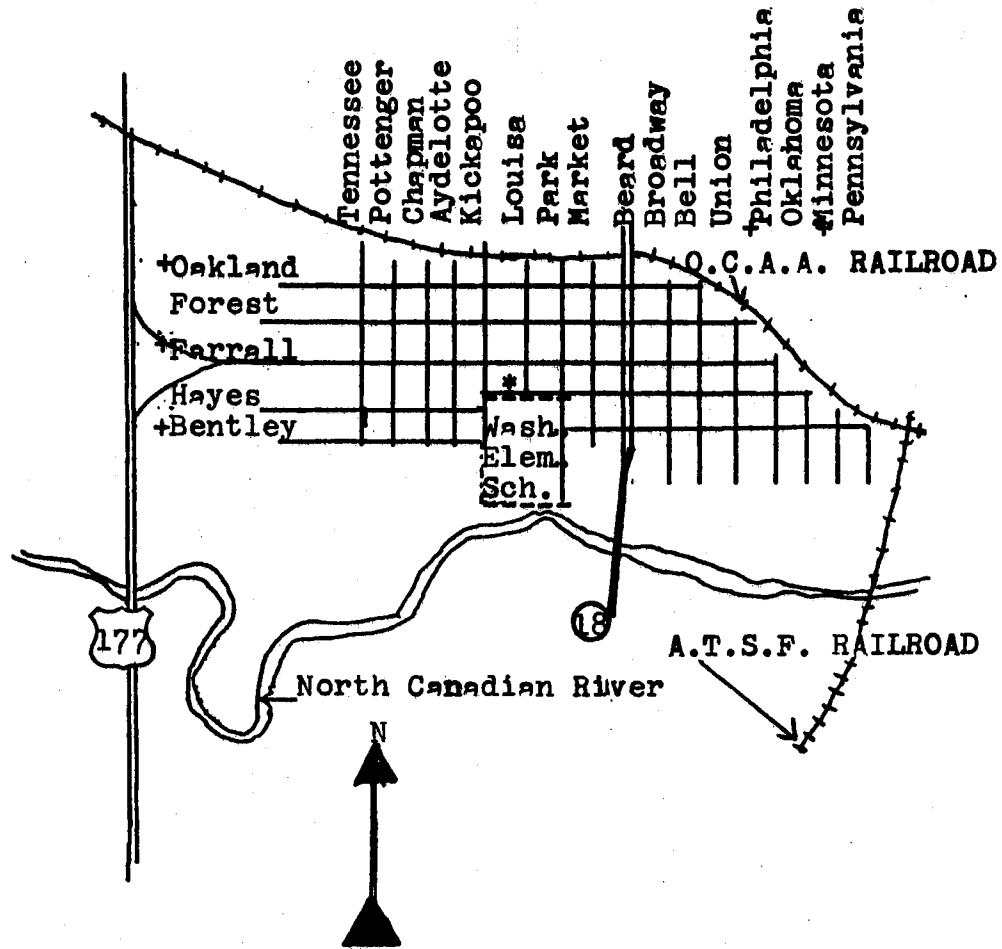
PART III.

Question 5. Spans of years were not descriptive enough of the population surveyed. Additional spans could be considered, such as 15 - 24, 25 - 34, 35 and longer.

APPENDIX C

MAP OF SHAWNEE SURVEY AREA

SHAWNEE SURVEY AREA



\* = Beginning point of survey

+ = Streets not surveyed

APPENDIX D

TYPICAL SCHOOL LUNCH CYCLE MENUS

Day	Main Dish	VEGETABLE AND FRUIT			Bread
		Salad	Vegetable	Fruit or Dessert	
M	Spaghetti w/Meat Sauce	Spring Salad	Buttered Green Peas	Chocolate Pie	French Bread
T	Pinto Beans w/Ham	Pickled Beets and Onion Slices	Buttered Cabbage	Apple Cobbler	Cornbread
W	Fried Chicken	Tomato Wedge	Mashed Potatoes w/ Split Pea Gravy	Fruit Cup Peanut Butter Cookie	Rolls
T	Pizza	Lettuce-Spinach-Tomato	Green Beans	Applesauce and Brownie	
F	Fish Burger	Deviled Cabbage	French Fries	Strawberry Cake	Buns
M	Salisbury Steak	Spring Salad	Baked Potato	Fruit Jello	Yeast Biscuit
T	Fish Cakes	Golden Glow	Blackeyed Peas	Orange Half	Corn Muffins
W	Hot Dog	Cole Slaw	Seasoned Pea Beans or Navy Beans	Peach Half Fudge Cookie	Buns
T	Beef-Vegetable Stew	Green Pepper Rings Celery Sticks	(In Stew)	Lime Whip Chocolate Cookie	Bread Slices
F	Turkey Pie	Fresh Cranberry Salad w/Oranges	Peas and Carrots	Pumpkin Pie or Custard	Biscuits
M	Hamburger	Lettuce-Tomato-Onion	French Fries	Cherry Squares	Buns
T	Barbecue Chicken	Waldorf Salad	Candied Sweet Potatoes	Apricot Upside-Down Cake	School Loaf Bread
W	Brown Beef and Gravy	Lettuce-Carrot-Onion	Mashed Potatoes	Gelatin Cubes (O.J.) Ginger Cookie	Rolled Wheat Rolls
T	Baked Beans	Tomato Spoon Relish	Spinach	1/2 Banana Wacky Cake	Cornmeal Crescents
F	Pig in a Blanket	Green Salad	Corn	Peach Cobbler	

Day	Main Dish	VEGETABLE AND FRUIT			Bread
		Salad	Vegetable	Fruit or Dessert	
M	Lasagne	Health Salad	Green Beans	Plain Cake w/Chocolate	Bread Sticks
T	Turkey Surprise	Jellied Applesauce	Broccoli	Fruit Filled Cookie	Rolls
W	Corn Dog or Hot Dog	Sauerkraut Salad	French Fries	Pineapple Pudding	Bun
T	Beef Pot Roast	Lettuce-Spinach	(Potatoes, Carrots, Onion, Celery)	Gingerbread w/ Orange Sauce	Plain Batter Bread
F	Tacos or Frito Pie	Lettuce-Tomato	Mexican Beans	Cherry-Nut Cake	
M	Fish Portions	Apple-Cabbage	Whole Kernel Corn	Cherry Cobbler	Rolls
T	Meat Loaf or Liver Strips	Tomato Relish	Potatoes in Cream Sauce	Apple Crisp	Biscuits
W	Submarine Sandwich	Lettuce-Tomato	Green Peas	Banana Pie or Pudding	Bun
T	Chicken Fried Steak	Combination	Mashed Potatoes	Apricot Bar	Rolls
F	Navy Beans w/Ham	Carrot-Raisin	Spinach	Orange Ambrosia	Corn Muffins
M	Pizza Burger	Tossed Salad	New Potatoes w/Green Beans	Bulgar Cake	Buns
T	Pork Balls w/ Sauerkraut		Whipped Sweet Potatoes	Fresh Apple Wedge	Raisin Batter Bread
W	Swiss Steak	Carrot Sticks	Green Limas	Hot Spiced Apples	Hot Biscuits
T	Macaroni-Cheese w/ Diced Luncheon Meat	Cole Slaw	Turnips and Greens	Fruit Cup	Cornmeal Crescents
F	Turkey and Dressing	Jellied Cranberry Salad	Blackeyed Peas	Pumpkin Cake or Custard	Rolled Wheat Rolls

## Recommended Additions to the School Lunch

### Menu for Elderly Adults

Based on the assumption that existing school lunch facilities will be utilized to feed the elderly, some menu modifications are necessary for those participants who do have dental or digestive problems in relation to eating and food habits.

#### Week I Menu Additions

Monday: Offer a citrus fruit salad.

Tuesday: Offer a ham sandwich, chilled applesauce salad, and stewed okra as a vegetable.

Wednesday: Offer baked chicken.

Thursday: Offer a sloppy joe sandwich.

Friday: Offer carrot sticks.

#### Week II Menu Additions

Monday: Offer a cottage cheese salad,

Wednesday: Offer green beans.

#### Week III Menu Additions

Monday: Offer a fruited gelatin salad.

Tuesday: Offer baked chicken:

Thursday: Offer macaroni and cheese.

Week IV Menu Additions

Monday: Offer a cold meat sandwich.

Wednesday: Offer pear and grated cheese salad.

Friday: Offer a hamburger on a bun and oven fried potatoes.

Week V Menu Additions

Monday: Offer peach half salad.

Friday: Offer a ham sandwich,

Week VI Menu Additions

Tuesday: Offer applesauce as a dessert.

Wednesday: Offer a fruited gelatin as a salad and pineapple chunks  
for dessert.

Thursday: Offer cottage cheese with a tomato wedge.

Friday: Offer green peas, too.



VITA

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