

TIME FACTORS IN PREPARATION OF SELECTED ENTREES

by 602

MARGARET LOUISE EKSTRAND

B. S., University of Nebraska, 1951

---

A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Institutional Management

KANSAS STATE UNIVERSITY  
Manhattan, Kansas

1970

Approved by:

  
Major Professor

LD  
2668  
R4  
1970  
E34  
C.2

TABLE OF CONTENTS

INTRODUCTION . . . . . 1

REVIEW OF LITERATURE . . . . . 2

    Menu Planning . . . . . 2

    Computer Applications to Food Service . . . . . 6

    Work Measurement . . . . . 9

PROCEDURE . . . . . 17

    Classification of Entrees . . . . . 17

    Identification of Time Groups . . . . . 19

    Observations . . . . . 23

RESULTS AND DISCUSSION . . . . . 27

    Process Time . . . . . 27

    Total Time Span and Total Labor Time . . . . . 35

    Variations of Observed Entrees . . . . . 39

CONCLUDING STATEMENTS AND RECOMMENDATIONS . . . . . 41

ACKNOWLEDGMENTS . . . . . 43

LITERATURE CITED . . . . . 44

APPENDIX . . . . . 48

## INTRODUCTION

The time factor as related to cooks' work load in institutional food service often is overlooked in menu planning, resulting in overwork one day and excessive free time the next. With labor cost becoming increasingly higher a balanced work load is essential if efficient use is to be made of personnel. Closely related to the labor factor is the planning of menus with variety in method of preparation for optimum use of equipment. A menu with an overabundance of items requiring baking, for example, could result in a last minute change.

Not only are color, texture, flavor, shape, nutritional requirements, and method of preparation important in planning menus for an institution, but management factors must be considered also. Arrangement of the kitchen and its relation to the serving area, amount and type of equipment, and number and skills of personnel cannot be ignored. The manager should be aware of the approximate time required for completing various processes in food production.

It may be difficult for the food service manager or dietitian to consider all of the many factors involved in planning menus and some may be overlooked. For this reason the computer may prove to be a valuable tool in planning menus and food production. It can accept the information programmed for it and in minutes accomplish what could take hours to do manually. Several institutions have considered cost and nutritional value in planning menus by computer and some have included palatability

factors. Equipment and labor, however, have been considered to a lesser extent. A lack of basic information with assigned numerical values has delayed inclusion of the latter factors in most computer planning programs.

This study was a preliminary investigation of menu preparation time as it related to a residence hall food service operation with a stable number of customers at all meals. The objective was to develop a procedure for estimating time factors in entree preparation that could be programmed for the computer.

## REVIEW OF LITERATURE

### Menu Planning

The menu, according to Balsley (1964) is the core around which all functions of the food service revolve. Purchasing, storing, preparation, and serving of food cannot be effectively accomplished without a well-planned menu. It must represent three different points of view. The customer desires an amount and variety of food to satisfy him, the workers have the task of preparing attractive, appetizing, food, while management desires satisfied clientele and the realization of a profit (West et al., 1966).

The successful menu planner must have a wide range of food likes, a knowledge of factors that influence food quality, imagination, and a sincere interest in pleasing the customers. West et al. (1966) cited a number of basic factors that must be considered, as color, flavor, texture, shape, consistency,