COST OF FRINGE BENEFITS IN A COLLEGE RESIDENCE HALL FOOD SERVICE OPERATION

Thesis for the Degree of M. S.

MICHIGAN STATE COLLEGE
Ruth Ella Gould

1954

This is to certify that the

thesis entitled

COST OF FRINGE BENEFITS IN A
COLLEGE RESIDENCE HALL FOOD
SERVICE OPERATION

presented by

RUTH ELLA GOULD

has been accepted towards fulfillment
of the requirements for

MASTER OF SCIENCE degree in INSTITUTION ADMINISTRATION

Katherine Hart
Major professor

Date November 3, 1954

O-169

COST OF FRINGE BENEFITS IN A COLLEGE RESIDENCE HALL FOOD SERVICE OPERATION

By

RUTH ELLA GOULD

A THESIS

Submitted to the School of Graduate Studies of Michigan
State College of Agriculture and Applied Science
in partial fulfillment of the requirements
for the degree of

MASTER OF SCIENCE

Department of Institution Administration

1954

ACKNOWLEDGMENTS

The author wishes to express her grateful appreciation to Miss Katherine Hart for her consideration, patience, encouragement, and guidance in the execution of this study; to Dr. Pearl Aldrich, for her constructive criticisms and advice; to Miss Mildred Jones, for generous and valuable guidance and to Dr. William D. Baten, Dr. Edward A. Gee, and Mr. Merrill R. Pierson, for their assistance in the interpretation of the data.

The author also wishes to express her sincere gratitude to Mrs. Marie E. Turner, Miss Marjorie Christie, and the resident managers of the dormitories. This study was made possible through their advice and cooperation in making records available. Appreciation is also extended to Miss Eleanor H. Scanlon of the Bureau of Industrial Relations at the University of Michigan, for her help in locating bibliographical materials.

TABLE OF CONTENTS

Page

LIST OF TABLES

LIST OF FIGURES

INTRODUCTION

Fringe benefits, or the nonwage costs of labor, have been found to comprise the largest single factor in increasing labor costs in industry. In a study by the Economic Research Department of the United States Chamber of Commerce in 1951, the average payment of fringe benefits by 736 reporting companies was 18.7 percent of the total labor payroll, or $644.00 per year per employee (20). This represented an increase of 66 percent during the preceding four-year period. A similar study by the Economic Research Department in 1953 indicated a further increase in the cost of fringe benefits to 19.5 percent of the total labor payroll, and $739.00 per year for each employee (21).

These fringe labor costs are present in the food service industry, and parallel the national pattern of increases. The present study was undertaken in an attempt to isolate fringe benefit costs in college residence hall food services. For this purpose the labor costs of the women's residence hall food services of Michigan State College were analyzed. The findings distinguish the more costly types of benefits from those of minor cost significance. Results of the study may be valuable in indicating the direction and scope of future studies, as well as the particular benefits or groups of benefits which need to be studied in greater detail.

Michigan State College is located in a competitive labor market with automotive industries and the state government. The personnel programs in local industry and state civil service determine to a great extent the college policy for wage practices.

The women's residence halls of Michigan State College included six dormitories in 1952-1953. The dormitories had a total census of 2,300 residents; the individual buildings ranged in census from 273 to 421. There were ninety-seven regular full-time food service employees.

The labor cost records of the full-time food service employees in the women's residence halls were analyzed in order to isolate and compute fringe benefit costs for the fiscal year, July 1, 1952, through June 30, 1953. This was the most recent accounting period for which complete cost figures were available.

Certain of the fringe benefit costs to management which add to the employees' pay are provided almost universally in industry today (11, 12, 23). These costs include paid vacations, paid holidays, paid sick leave, and workmen's compensation as fixed by law. In the present study these costs were considered as direct fringe benefits.

No standard definition could be found in industrial reports to meet all concepts of what costs should be called fringe benefits. General agreement existed concerning the above-mentioned benefits; but in addition to these, there was a wide range of extra payments for time worked, time not worked, employee security, and employee services (11).

Industrial employers were arbitrary in their decisions as to what constituted fringe benefits in their particular establishments. Therefore, it was decided to obtain data on certain indirect labor costs in college food services. These costs included employees' meals, food furnished in rest periods, uniforms furnished, laundry of uniforms, health service charges, and cost of health examinations required of new employees or those absent more than 30 days.

The latter group of costs, in contrast with the direct costs, were generally recorded by food service managements as operating expenses. In this study they were included in the category of fringe benefits, since they met the following criteria (11):

1. They are of some cost to management without being correlated with increased production.
2. They are of financial benefit to the employee or increase his pay.

3. They are provided for all or most of the employees.

4. They fluctuate with the size of the work force.

Pensions and retirement plans of all kinds are considered by industry as fringe benefits; in fact, they are the largest item in that category in many business operations. However, at Michigan State College the expense of the pension plan is borne entirely by the college, and not by the individual residence hall food services. Since this is true, pensions as well as preliminary health examinations were classified as miscellaneous administrative costs in this food service study.

The women's residence hall food services at Michigan State College were considered typical of college residence hall food services. Information obtained in this study could be used as a basis of comparison in studies of costs in other college and university food services. However, the findings would not be directly applicable or comparable to commercial or hospital food service operations.

REVIEW OF LITERATURE

Relations between management and the employee of today may be better understood through study of the history of manpower management. Manpower was an elementary resource of society even before man learned to harness wind and water. The management of human beings by other human beings created problems for the early Egyptians and medieval barons as well as for factory managers of the twentieth century. The employer had to recruit, hire, train, and supervise his laborers; while the status of the employer remained relatively unchanged, the status of labor was progressively improved.

History of Union Development

During the ancient and medieval periods of European history workers were considered as the property of their masters. A gradual change in attitude came about with the agricultural stage of the economic evolution until workers were thought of as servants. From the limited specialization allowed to some talented servants, free artisans developed who sold their services and products independently.

These independent craftsmen developed workshops in their homes where they did the "hand" work of the so-called "handicraft" system. The craftsmen who hired apprentice employees and journeymen, who frequently traveled from shop to shop, became the first employers. As the shops increased in numbers of workers, owners saw the need of banding together; over a period of several centuries the guild system evolved. In the guild system, manpower management was a major responsibility of the master craftsmen who owned the shops, hired journeymen or wage workers, and trained the apprentices. The guilds were the first form of worker organization, and the forerunners of the unions we know today.

With the immense growth in production and the beginnings of urbanization which came with the Industrial Revolution, the handicraft system ceased to be the dominating type of economic organization after 1760 (67). Members of the emerging middle classes in Europe emigrated to the American colonies, and the various trades were represented by guilds in this country as in Europe. Yoder (66) noted that a journeyman guild of cordwainers was formed in Philadelphia in 1792. These early collective-bargaining units required members to be recognized master craftsmen and organized into guilds by trade.

The first national union in America, the National Union of Typographers, was established in 1850 (66). Yoder mentioned the founding of a national union of stonecutters in 1853, and of hat finishers in 1854 (66). By the end of the Civil War, thirty-two such national unions existed (67). In 1866 the National Labor Union was formed in Baltimore. This union made an unsuccessful attempt to amalgamate the different craft unions into one large unit. Another ineffectual attempt to include all types of skilled and unskilled labor in one organization was the foundation of the Knights of Labor by Philadelphia garment cutters in 1869 (67).

Leaders of the Knights of Labor were instrumental in founding the American Federation of Labor in 1886. This voluntary federation of craft unions was successfully launched with a constitution similar to the Articles of Confederation. The American Federation of Labor was founded on the premise that unionism of unskilled workers would effect a leveling of wages and consequent loss of advantages to skilled workers. The founders also believed that organization of unskilled workers was impossible, since each one was replaceable at any time.

The national craft unions which made up the American Federation of Labor were known as "international" because of their loose affiliation with similar European unions. The internationals controlled the federation and chartered thousands of local craft unions. There were five departments within the federation: the metal trades, the building trades, the railroad employees, the union label trades, and the maritime trades. In 1945 the sixth department, the Government Employees' Council, was established.

Shortly after the founding of the American Federation of Labor, Congress passed the Sherman Anti-Trust Act in 1890. This was the first federal statute which applied to organized labor. Prior to the Sherman Act, employers had restricted even limited union action by the free use of injunctions which were upheld by courts and legislatures.

With the passage of the Clayton Act in 1914, labor organizations were excluded from the antitrust regulations of the Sherman Act, because "the labor of human beings is not a commodity or an article of commerce" (66). The Clayton Act also limited injunctions against labor organizations and specifically precluded injunctions against quitting the job.

The greatest period of union growth occurred during the expanding economy and resultant demand for manpower during World War I. The need for effective use of that manpower caused study of the worker as a person. F. W. Taylor advocated a number of reforms in the management of industry which involved the direction of employees to cut down waste of human effort. Taylor was a pioneer in the movement known as scientific management, and published The Principles of Scientific Management in 1911. Thorstein Veblen's classic, The Instinct of Workmanship, was published in 1914, and Ordway Tead wrote Instincts in Industry in 1918. Private industrial-relations programs came into being; employers became concerned about employee health, causes of absenteeism, unrest, accidents, and fatigue. However, most employers held the paternalistic attitude that the employees needed the firm but sympathetic guidance of the employer (67).

The period following World War I was one of increasing prosperity through 1929. The stock market collapsed in October of that year, and caused a financial panic which resulted in several years of depression. Many factories closed, work was scarce, and labor unrest caused industrial disputes.

The effects of the Norris-LaGuardia Act, which was passed in 1932, lessened one of the points of friction between management and labor at that time. The act outlined two conditions under which employers might issue injunctions: first, if there were danger of substantial property damage; second, if the danger of injury would be greater if the injunction were not issued. The act also stated specifically that employers could not prohibit employees from striking (66).

At the American Federation of Labor convention in 1935, a group of eight national unions withdrew from the federation to form the Congress of Industrial Organizations. These eight were: coal miners, typographical workers, clothing workers, garment workers, textile workers, oil and gas workers, cap and millinery workers, and smelter workers. Their motivation was the wish to organize the many semiskilled and unskilled workers who, by the nature of their work, were not allowed in the Federation's organization of skilled trades. The original eight national unions were soon joined by five more: the flat-glass workers; the auto workers; the rubber workers; the iron, steel, and tin workers; and the American Newspaper Guild. Thus the Congress of Industrial Organizations in a very short time paralleled the parent organization in size and bargaining power.

The government had been trying every means within its power to correct the economic depression, and in 1933 Congress passed the National Industrial Recovery Act. This act encouraged collective bargaining by making the domination of the union by management or employer an unfair labor practice (66). Although it was declared unconstitutional by the Supreme Court in 1935, most of the provisions of this act were incorporated in the National Labor Relations Act of 1935, which superseded the NIRA. The Labor Relations Act cited as unfair the following antiunion tactics: blacklists, spies on the union, "yellow-dog" contracts (those which promised a job in return for the worker's promise not to join a union), discrediting of union leaders, forming company police, farming out contracts, and other strikebreaking tactics.

In 1937 New York and Utah passed the first state labor relations acts which paralleled the NLRA in their provisions. Massachusetts, Michigan, Minnesota, and Wisconsin followed in 1938 and 1939 (66).

Although national as well as state legislation reflected the growing recognition of unionism, organized labor's aims were still opposed to those of management. Unions employed the picket line, closed shops, boycotts, control of output, and strikes as tactics to gain recognition of their demands (66). The strike as a weapon of unions had many variations: the general strike throughout an industry; the outlaw strike of one union not authorized by the national organization; the "flash" or "quickie" strike used as a threat of a general strike; and the slowdown. The first sit-down strike was instituted by the CIO against General Motors in 1937.

By 1938, when the CIO Charter was adopted, several large independent unions had been formed: the Brotherhoods of Locomotive

Engineers, Firemen, and Enginemen; the Brotherhood of Railway Trainmen; the Order of Railroad Conductors; and the telephone workers. Unions and management organizations were then entering into politics, and were affecting the social, political, and economic structure of American society (66).

With the onset of defense problems of World War II in 1940 and 1941, the need arose for research in manpower management and for high-level leadership development. Scarcities of manpower resources became serious as industry converted to war production (67). The War Labor Board was formed to attack major problems of manpower management and work stoppages arising from industrial disputes. The Board received pledges of no strikes from both the major unions and, in return, required the inclusion of formal grievance procedures in collective agreements (66).

In the governmental plan to keep prices in line and prevent inflation, the same agency was charged with responsibility for wage stabilization. The board made extensive use of wage surveys to arrive at a program of stabilized wage rates for a wide range of occupations in the major labor markets of the country. Nevertheless, by 1944 prices had risen during the war to an inflationary level. Almost all of the country's workers had received the maximum increases possible under the base wage rates set by the War Labor Board. However, because of price inflation, these wages were not considered adequate by the unions.

Union wage demands were met by various indirect wage increases which came to be known as "fringe benefits" because they were not pay for actual hours of work (17). Lewis (39) stated that employee benefits which supplemented payments made directly for hours worked or units produced were commonly referred to as "supplemental," "related," or "fringe" payments. The Bureau of Labor Statistics called fringe benefits those which were supplemental to wages received by workers at a cost to employers (23).

These indirect wage increases added to the workers' net, or "take-home" pay. Among the many services and benefits offered were vacations and holidays with pay, allowances for travel time, allowances for lunch periods, bonus and incentive plans, adjustments for shift differentials, and health and insurance funds (16, 17, 42, 53, 66, 67).

During World War II the War Manpower Commission classified all principal labor markets and controlled job placements and transfers. This commission was also influential in the introduction of improved job techniques and the development of the Training

Within Industry program; it cooperated with the War Labor Board in achieving increased manpower utilization. Both the War Labor Board and the War Manpower Commission, as agencies of the government, gave great impetus to the development of scientific management principles. They worked to remove intraplant inequities through job evaluation, classified certain activities as essential to the war effort, controlled job placements indicating many possibilities of improved manpower utilization, and suggested possible improvements in training techniques (17, 67).

At this time it became generally accepted that the government had a responsibility to encourage a high level of employment and to render the economy less susceptible to recession (10). Many of the management techniques learned through hard necessity during the war resulted in significant changes in postwar industrial practices. Collective bargaining became a recognized instrument of industrial progress, and union organizations were called upon to take part of the responsibility of maintaining full employment and industrial harmony (42).

The formal grievance procedures demanded by the War Labor Board during World War II were incorporated in the Labor Management Relations Act, a federal law passed in 1947. This law, known as the

Taft-Hartley Act, continued to encourage collective bargaining under the wider definitions used by government agencies during the war period. The Taft-Hartley Act placed restrictions on some union practices and prohibited certain union political activity (67).

The National Labor Relations Act, the Taft-Hartley Act, and the various state labor-relations acts were the determinants of the major provisions of public policy on collective bargaining. Later laws and regulations defined and clarified the provisions of these basic acts. For example, in 1948 the NLRB held that the employer has an obligation to bargain collectively on questions of health and welfare programs (18).

Yoder stated that services and benefits were first given to workers by management in a spirit of charity, based on the paternalistic attitude toward employees which prevailed in the nineteenth century. However, this attitude disappeared when employers realized the long-term values of higher morale and increased production which resulted from a satisfied work force (66).

Paid Vacations and Holidays

As industrial organizations increased in size, the distance between employer and employees became greater, and personal contacts became less frequent. This trend was expressed not only in union development, but also in the setting up of internal organizations which recognized the need of communication between management and the workers. On issues important to the employee, the aim of management to maintain a stable work force was achieved through collective bargaining.

Results of research in manpower management showed that productivity did not increase in direct proportion to more hours on the job. In the 80-year period preceding 1930, the average work week dropped from 70 hours to the present 40 hours. Aspley and Whitmore (3) pointed out that employers realized that a properly administered vacation policy made for better labor relations, even though it added to the cost of production. Yoder (67) concurred, and added that holidays and paid vacations were directly related to motivation. Mee (42) noted two different points of view regarding vacations: first, as a reward for past service; and second, as a means of reconditioning employees for the coming year of work.

Vacations were first given only to salaried workers as a reward for the year's work. The general policy was to relate vacation pay to certain eligibility requirements and to length of service; some companies used the salary scale as a basis (3). The practice

of giving paid vacations soon spread to include hourly paid workers. Lewis, in his study of forty major labor markets of the United States, stated that almost all workers in these markets were employed in businesses which provided paid vacations in 1953 (39).

Mee (42) reported a definite trend toward the liberalization of vacation policies, noting that they specified regular pay for a stated period of time graduated according to length of service. He stated that the usual vacations given to workers were two weeks with pay after two, three, or four years of service. Lewis' (39) study of labor markets found all office workers and a substantial number of plant workers eligible for two-week paid vacations after they had completed only two years of service (39).

For many years paid holidays were given only to salaried employees; hourly workers received compensation. Changes in this policy during the past twenty years, according to Mee (42), showed a trend toward giving all employees time off with full pay on certain national holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas.

Lewis (39) reported in his study in 1952 that holiday pay was provided for nearly all office workers in each major labor market and for the vast majority of plant workers in all areas except

Birmingham and Pittsburgh, where less than half the plant workers received holiday pay because of the absence of holiday provisions in the steel industry at the time of the study. However, on August 15, 1952, provision was made for six holidays for plant workers in the steel industry.

Lewis found that the New England labor markets and the New York, Newark, and Jersey City regions were the most liberal in the matter of paid holidays. Most of the workers in these areas received nine or more holidays. The nine holidays included the usual six national holidays as well as two or three additional days which might include Washington's Birthday, Lincoln's Birthday, Good Friday, Yom Kippur, or Columbus Day (39).

Workmen's Compensation Laws

The first successful workmen's compensation law was passed in the State of Washington in 1911. It provided payment in compensation for illness or injury incurred in the performance of the job (42). Prior to this time employers were expected under common law to provide reasonably safe and healthy working conditions, and workers were expected to work safely and avoid work hazards.

Employers could usually avoid payment in suits brought to court by proving contributory negligence by the worker himself or carelessness on the part of his fellow workers. Because the early employers' liability laws passed by the states were not entirely successful in fixing the cost of industrial accidents, many employees suffered financial as well as physical losses (42).

Later state compensation laws were based on the idea that costs involved in accidents and illness from work causes should be an expense to the business and paid as an operating cost (42). These compensation laws established benefits based on a percentage (usually not more than 50 percent) of the worker's pay with a maximum and minimum amount established. Waiting periods under the various laws were different, as were the retroactive clauses and the types of work accidents which were recognized. Most laws stressed the use of safety devices provided and required that injuries must have happened by chance and have been reported within a specified time (2).

Jarchow stated that workmen's compensation laws covered all injuries in the course of employment except those of wilful intention and occupational diseases (30). Excluded from coverage in the state laws were employees in nonhazardous occupations, agricultural workers, domestic servants, interstate commerce employees, those working in establishments employing less than a specified number of workers, and those employed by nonprofit organizations (42).

Under workmen's compensation laws no court action was necessary. After a waiting period of as much as fourteen days, benefits were granted on a scale according to wages and according to the number of dependents in some cases (67). Yoder (67) stated that there has been a trend toward extending coverage to benefits for industrial diseases at first on a limited scale and later to any illness that could be shown to be job-connected.

Mee (42) was of the opinion that states would continue to consider workmen's compensation as temporary assistance for injured employees and would continue to endeavor to keep the incentives for workers to remain on the job.

Paid Sick Leave

The first private industrial welfare programs were organized during World War I as employee mutual benefit societies. Under these plans, the workers banded together, and by means of periodic contributions created a fund which was used to give disabled employees small benefits during the time they were incapacitated (7).

Brower (8) stated that these mutual benefit associations have generally been supplanted by group sickness and accident insurance plans. She gave the following information concerning surveys of over two thousand companies as proof of her statement:

Annual Conference Surveys	Percentage of Companies	
	With Mutual Benefit Associations	With Group Health and Accident Programs
1935	28.2%	30.7%
1939	22.3%	34.2%
1946	11.0%	64.0%

Brower (8) defined paid sick leave as a company-financed and company-administered sickness benefit program under which the employee was paid his entire salary while incapacitated. She stated in contrast that group health insurance plans required a waiting period of three to seven days and paid the worker not more than one-half to two-thirds of his salary.

The decrease in frequency of paid sick leave provisions in union contracts (from 20 percent in 1950 to around 15 percent in 1953) showed the trend toward handling sick leave by means of non-occupational sickness and accident insurance plans (18). Lewis (39) stated that although sick leave plans were frequently reported in each of the major labor markets in the country, they were not nearly as prevalent as vacation and holiday plans. This same study showed that the paid sick leave plans differed greatly in qualification requirements and length-of-leave allowances as well as in the proportion of wages or salaries paid during illness.

The demand on the part of people in many countries for security against the various economic hazards which arose in war economies became commonplace (15). In this country, group insurance plans covered the major part of the cost to the employer of providing workmen's compensation. There were three types of such plans: private insurance plans which were sometimes based on the accident rating of the insured company; self-insurance plans whereby the employer assumed responsibility for the medical care and payment of benefits by showing evidence of ability to do so; and public insurance systems which were run by the state (42).

Sickness and accident benefits were usually provided for those not covered by compensation laws. The cost of these benefits was borne principally by the employees themselves; the employer made some contribution and absorbed the administrative expenses of the plan (30). When the injured employee needed medical attention beyond the time limit of the state law, the insurance company usually paid the medical bill in order to get the employee back to work (29).

Yoder pointed out that group insurance was an area where the employers could offer, by means of "blanket" or group policies, a financial service that could not be duplicated by the individual (67). Aspley and Whitmore (3) agreed with Yoder that group insurance programs benefit the employer by keeping down turnover. The American Management Association (2) found that group insurance was becoming increasingly important in collective bargaining. They also stated that management was required to bargain collectively on group insurance programs because such matters were considered to be conditions of employment (15).

Jarchow (30) stated that in the ten-year period between 1934 and 1944 the number of employees protected by group life insurance plans increased from six million to fifteen million. Lewis' (39) study noted that a majority of both office and plant workers in 75 percent of the major labor markets were employed in establishments which maintained both life insurance and health and hospitalization plans paid for wholly or in part by the employers. Surveys of four hundred collective bargaining agreements showed that the number of social insurance plans (hospitalization, life, nonoccupational sickness and accident, and surgical care plans) increased 200 percent from 1949 to 1952 (18).

Since 1942, several states have passed laws to provide disability benefits (64). In that year Rhode Island passed a law which specified that employers in certain industries contribute to a state fund to provide weekly sick benefits. Employees also were required to contribute at the rate of 1.5 percent of their earnings. California, New Jersey, New York, and Washington passed similar laws in 1946, 1948, and 1949 (64). Recent insurance plans included accident and sickness insurance "across the board" whether the cause was occupational or nonoccupational (15), major-illness policies with more liberal hospitalization clauses (40), and a form of hospitalization and surgical care policy which stated specifically that as long as the premiums were paid the company could not refuse renewal (59). The most recent development in the group insurance field was a general coverage plan which provided medical fees for office or hospital calls as well as home visits (30).

Although the employer was able to pass his obligations to pay onto the insurance company, each new law presented new problems to management of complying, record-keeping, and reporting (44). These problems led to increased efforts on the part of management to prevent accidental injuries and occupational diseases. Such efforts, in turn, led to the establishment of health services within the plants. These health services were not comprehensive, but they administered emergency treatment and aimed principally at accident and illness prevention (67).

Pensions and Old Age Assistance

In the first decade of the twentieth century, the idea of social security was prevalent in Germany, where the people had to pay for old-age pensions and death benefits provided by the state. Compulsory social security was not accepted in the United States, where people expected employers and insurance companies to fulfill the function of old age protection (1).

In 1934, President Roosevelt called the Mayflower Conference, in which he asked for the formation of a Cabinet Committee on Social Security to study plans for national retirement insurance. At this time the Townsend Plan, with its promise of $200.00 a month and retirement at 60 years of age, was gaining followers. Many people were feeling the effects of the prolonged depression, and there was a growing conviction of the impossibility of personal thrift as the only agency for old age security in times of inflation (1).

The Federal Old Age and Security Insurance Plan (the Social Security Act) was passed in 1935 and amended in 1939 with a description of the range of benefits and a more specific class coverage (1). It placed emphasis on individual equity rather than broad social equity, as the European plans had done.

The American Management Association considered that the Social Security Act was sound in its principle that government insurance should be supplemental to other ways of meeting old age security. However, this act was inadequate in coverage since it applied to only three out of five jobs, guaranteed benefits too low for subsistence, and required a long time for participants to qualify for benefits (47). The insurance experts of the AMA stated that individual saving has never been an important means of achieving old age security; records show that 37 percent of American families do not save. Old age relief or assistance has been the principal method of achieving security for the aged (47).

During the period from 1937 to 1949 many state old age assistance benefits were increased because of the rising cost of living (15). The inflationary economy enlarged former estimates of adequate benefit plans (29). There was an increase in the average wage of workers, and costs of company-sponsored pensions represented a greater percentage of the operating costs. As a result, many corporations hesitated to adopt broader supplemental plans (15).

The Steel Board Report of 1949 recognized that the average age of workers had been increasing slowly but steadily, and that the government could supply only the basic minimum of security (41). This report recommended weighting the benefit formula to favor the low-wage earners rather than those earning a high wage. Business management began to recognize that private plans could be operated to meet both minimum legal requirements and supplemental benefits related to wage scales and cost of living (15).

Personnel researchers of the AMA reported the existence of four hundred private pension plans in 1929, and thirteen thousand in 1950 (47). A survey of four hundred collective bargaining contracts showed a 400-percent increase in the number of pension plans from 1950 to 1953 (18). Lewis (39) found similar gains in coverage of both plant and office workers in more than thirty thousand selected companies; 95 percent of these companies which reported pension plans in 1952 had established them since 1945. Wandel (61) stated that the number of private pension plans increased from about seven thousand in 1945 to an estimated seventeen thousand in 1952.

Pension plans thus became a substantial and a permanent cost to management which labor received in most cases in lieu of wage increases (62). The attitude of labor was, first, that the employer's contributions to pension plans were essentially deferred wages; second, that retirement age should be flexible, and not automatic; third, that the plan should provide universal coverage for all the workers in the bargaining unit, be noncontributory, and be administered jointly by management and labor (65). Wandel (64) believed that the unwillingness of labor to be satisfied with existing plans meant that there would be extended adoption of the contributory plans which predominated in smaller firms and which made possible more liberal programs.

Rest Periods and Miscellaneous Services

Rest periods were first given to industrial workers under private industrial relations programs begun during World War I (67). These programs related low morale to fatigue and monotony, and many firms found that short intervals of rest in the middle of the morning and afternoon mitigated these conditions (67). Mee (42) stated that most industries adopted the practice of giving formal rest periods during the war years, because experience showed that increasing the hours of work beyond 52 hours a week did not result in correspondingly increased production (42).

Yoder (67) felt that rest pauses had been introduced in many companies without reference to output figures which indicated fatigue as an inhibiting factor. He stated that reports on the value of rest periods were conflicting. In 1952, a study made of 102 large and small companies showed the practice of pay for time not worked occurred in seven out of ten companies of all types (49).

Certain other benefits have been provided by management for a period of years in many industries. Mee (42) stated that the fundamental philosophy of management was an attempt to increase the comfort and well-being of the employee on the job and that any financial advantage to management was essentially a by-product. Meals in company cafeterias furnished at or below cost, protective clothing for hazardous or dirty work (38), free laundry of uniforms which the employees were required to wear, and discounts on company products (22) were provided in industry before formal collective bargaining came into use. Increased attention to the worker's personal desires formalized these practices into statements of policy by management, until fringe benefits actually became conditions of employment.

Labor Cost Control in Food Services

In the operation of food services, recognition of the importance of controlling labor costs lagged behind the primary concern of controlling food costs. Systematic means of analyzing and reporting actual and fringe labor costs were developed in many other industries before the food service industry began to consider the problem (37).

In 1950, many food service establishments reported that payroll costs were the largest single expense of operation (6). Management resorted to various means of control such as labor-saving machinery, better layouts, prepared foods, and menu simplification. Raising prices to balance the increasing labor costs was found to result in a decrease in sales (37). The increases in labor costs from 1940 to 1950 were regarded as excessive, and the likelihood of further rises was recognized (37).

Important factors which made setting standards of control of labor costs difficult throughout the food service industry were: variations due to size and type of service, wage differentials and local labor supply, layout and equipment, and managerial efficiency (31). By employing methods used in industry, food service managements could compare their costs of labor on several different bases to more clearly determine indicated remedial action (6).

METHOD OF PROCEDURE

During the period of this study the operation of the six dormitories for women at Michigan State College was directed by the Manager of Women's Residence Halls. Through her office all policies and information on food production, purchasing, personnel, and finances were coordinated. A resident manager was responsible for housekeeping and food service in each building. The close working relationship between the Manager of Women's Residence Halls and the resident managers has created a centrally operated organization with six component parts.

Purchase records, payrolls, and financial statements were filed in the main office of the Manager. This complete system of records made greater organizational control and economy of operation possible. The Manager was assisted in the main office by a secretary and a payroll clerk.

The payroll clerk was consulted for an explanation of the records available. These records were found to contain exact figures on four fringe benefits: paid vacations, holidays, sick leaves and time off for funerals, and workmen's compensation. The reports furnished data necessary to compute the costs of five fringe benefits:

rest periods, laundry, uniforms furnished, health service charges, and extra cost of employees' meals over the amounts deducted from their checks.

Types of Fringe Benefits

Since the four fringe benefits previously mentioned were included in the labor payrolls of the food services, they were called "direct" fringe benefits for the purposes of this study. Data on the direct fringe benefits were collected without computation from the payroll reports. Since the five remaining costs were customarily regarded as operating expenses of the food services, they were computed from available records, and were called "indirect" fringe benefits.

Time records were summarized in the office of the Manager of Women's Residence Halls for all regular employees and students on the labor payroll. The payroll periods for regular full-time employees were two weeks in length. The twenty-six payroll periods covering the fiscal year July 1, 1952, through June 30, 1953, were studied.

The procedure for this study followed a general pattern: (1) compilation on six individual sheets of direct and indirect fringes from payroll records and reports filed in the main office of the Manager of Women's Residence Halls; (2) personal interviews for clarification of the collection and interpretation of the figures; (3) decisions which pertained to the limitations and scope of the material; and (4) compilation of a master sheet which summarized the total data for the entire operation for the year.

Preliminary Data Collection

A preliminary data sheet was designed for the collection of information for one dormitory for the fiscal year (Appendix Tables 1, 2, 3). This data form was then used for collection of information for the other five dormitories.

The first column on the sheets for collecting data listed the ending dates of the pay periods. The data for fall, winter, spring, and summer terms were separated by dash lines. The first six payroll periods of the fiscal year of 1952-1953 included the summer session. During this period the food service of Yakeley Hall was the only one in operation; the other five buildings were closed for cleaning and repairs.

Census figures for each dormitory were taken from the monthly profit and loss statements sent to the Manger of Women's

Residence Halls from the college accounting office. These figures were averaged for the year and added to averages of numbers of regular employees and student men workers to obtain an average of the number of persons served. Dollar computations for all fringe benefits studied were based on the total number of persons served and also on the total number of regular employees.

The number of days of operation of the food services was taken from the payroll records in the Manager's office. All employees of Michigan State College are on a 40-hour work week, but residence hall food services are in operation seven days a week. Therefore, the number of days of operation included employees' regular days off from work. The number of days of operation was used in computing the cost of meals, rest periods, and laundry.

Information concerning food service income was obtained from the monthly profit and loss statements furnished by the accounting office. Food service labor payroll figures were taken from the payroll records in the Manager's office. Percentage computations for all fringe benefits studied were based on the total income and the total labor payroll.

Interviews

The Personnel Director of Michigan State College was interviewed on the subject of college policy on retirement, group life insurance, health services, workmen's compensation, vacations and holidays with pay, sick leave pay, overtime pay, rest periods, season athletic books at reduced rates for employees, uniforms and laundry of uniforms, meals furnished, and job classifications. The Director made available the orientation booklet given to all new employees at Michigan State College and the booklets of other universities for comparison.

The Manager of Women's Residence Halls was interviewed for her estimates of the following costs which were used in the computations: cost of food supplied during rest periods, length of rest periods given the employees, number of uniforms and aprons laundered per employee, and number of aprons purchased during the year. These were costs which were either too small to be significant or impossible to obtain from current records. The resident managers were also consulted on these costs, and in some cases they supplied census figures for the study.

The head nurse at the college hospital was interviewed to obtain information concerning the number of emergency cases and the charges for treatment of food service employees. She also supplied details of cost allocation for the preliminary health examinations given to new food handlers and to those employees absent from work for more than 30 consecutive days.

The Comptroller of the college was interviewed to obtain details of the college retirement plan, the number of former food service employees on retirement for 1952-1953, and the approximate percentage of the regular payroll allocated by the college for the pension plan. This last figure was computed as a percentage of the total labor payroll for the year and in dollars per employee for the year.

The Comptroller also furnished the approximate figure used as the cost of the preliminary physical examinations required of new employees. This cost and that of pensions were administrative expenses borne by the college, and were not included in the fringe benefits.

Professors of statistics and accounting at Michigan State College and a representative of the accounting firm of Horwath and Horwath were consulted on various methods of presenting and interpreting the data. Correspondence with authorities in the industrial relations field on questions concerning semantics supplied valuable information on industrial practices of reporting costs of fringe benefits.

Computation of Ratios and Percentages

Industrial reports of fringe benefit costs used different methods of expressing the costs according to the use which was to be made of the information. The need for knowing the annual cost of each fringe benefit and of relating this to the number of employees was widely recognized among the companies (11, 12, 20, 21, 36). Another commonly used method showed the fringe benefits costs as percentages of the total labor payroll for the year (7, 11, 12, 20, 21, 28, 31). United States Chamber of Commerce studies expressed the costs of groups of fringes in cents per labor hour compared with the average hourly wage or base rate (20, 21). Some surveys showed each fringe benefit as a percentage of the total cost of fringes given for the period of the studies (12, 20, 21).

In some surveys, percentages and ratios were found for fringe benefits which had been grouped by type of payment (7, 11, 12, 20, 21). Division was made between legally required payments, pensions and other private welfare payments, payments for time not worked, other payments such as paid rest periods, travel time and lunch periods, and profit-sharing or bonus payments. Frequently all benefits other than those legally required were considered together as the "benefit package" for bargaining purposes.

In studies of food service labor costs, results were based on the number of persons served in the establishment (4, 36, 58). Some food service studies also presented the costs as percentage of sales, receipts, or income for the year (9, 36). Authorities in food service management felt that the ratio of labor costs to sales was not the best or most accurate way to state results. They calculated the work units or the minutes of labor per customer to reflect shifts in the work load and to give a clearer picture for remedial action (5, 6, 58, 61).

The following four methods were selected as bases for the computations in this study: (1) costs of fringe benefits as percentages of annual income; (2) dollar costs of fringe benefits per employee; (3) costs of fringe benefits as percentages of labor payroll for the year; (4) dollar costs of fringe benefits per person served.

A master compilation sheet was designed to summarize the total direct fringe benefits (those included in the food service labor payroll) and the total indirect fringe benefits (those regarded as operating expenses of the food service and of financial benefit to the employees). (See Appendix Tables 4, 5, 6, 7.) Percentages of food service income and of food service labor payroll were calculated for each of the fringes. The dollar cost per person served and the dollar cost per regular full-time employee were calculated for each of the fringe benefits. Finally, the costs of individual fringes were computed as percentages of the total cost of the nonwage benefit program for the year.

DISCUSSION

The food services of the Women's Residence Halls at Michigan State College employ both regular full-time employees and part-time student men and women. Only the regular employees are eligible for all the fringe benefits discussed in this study. However, in the residence hall food service operations the part-time student workers form an integral part of the labor force. Palmer (45) found that student employees were used in 96.1 percent of the food service units in seventy-three colleges and universities she studied in 1941. Augustine (4) stated that it has become an established policy of college administrators to offer financial assistance in the form of work opportunities to as many students as possible. Thompson (58) and Blaker (5) both included data on student employees in their studies of college cafeterias.

Women student workers lived in the dormitories, and they, as well as the men student workers, were part of the total number of persons served. Uniforms and bus coats were laundered for the students, and accidental on-the-job injuries of students were treated at the college hospital and charged to the cafeterias. Except for these services, the status of student workers as part-time employees precluded their receiving fringe benefits. All data presented in this study are based on the number of regular employees, and do not refer to student employees.

Differences in operation which affected the average numbers of workers employed were observed among the dormitories. The smallest of the six residence halls employed more regular and fewer student workers, because student labor could not operate efficiently in the limited kitchen space. Only one of the three largest residence halls was operated each summer session. Employees from all six buildings who wished to work in food service during the summer were scheduled in this operation.

Direct Fringe Benefits

The direct fringe benefits analyzed in this study were those readily recognizable as nonwage labor costs: vacations, holidays, sick leaves, and workmen's compensation. Workmen's compensation was the only legally required benefit received by the food service employees; all other benefits were provided as a part of the college wage policy.

Paid vacations

The cost of paid vacations in industry may be computed directly or on the basis of averages (11). For vacations graduated according to length of service with the company, some firms use the product of the average vacation allowance in hours times the average base rate times the average number of employees (11). Data on paid vacations in this study are exact--not averaged--since the figures were available in the payroll records prepared by the resident managers.

Michigan State College policy on vacations in 1952-1953 granted two weeks with pay at the completion of a full year of satisfactory service or one week at the end of six months' service. In the case of residence hall and food service employees, the ten months of fall, winter, and spring terms were counted as a full year of service.

The Manager of Women's Residence Halls gave food service employees the option of working on the cleaning crew in the residence parts of the building for the summer months or of taking leave of absence until school opened in the fall. In this way food service employees who wished to work a full year were given the opportunity to do so.

All college employees were on a 40-hour work week. No pay was listed for overtime; any time worked over an eight-hour day was added to vacation time, or the employee took extra days off to compensate. All vacations were scheduled during the summer months, except in cases of termination of employment, in which accumulated vacation pay was given the employee at the time of termination.

The total cost of vacations paid for the period studied was found to be $8,801.05, as shown on Table 1. This was the second-largest fringe benefit cost, exceeded only by the cost of rest periods. Table 1 shows that paid vacations were about 0.8 percent of the total food-service income. Vacations amounted to $3.26 per person served for the year (see Table 2).

Vacation pay was found to represent 4.15 percent of the total labor payroll for the year (see Table 1). The United States Chamber of Commerce found that vacations represented 3.2 percent of the total labor payrolls throughout industry as a whole in 1951 (20), and Mee (42) quoted the percentage as being 4 percent of the average annual payroll.

Vacation pay averaged $86.00 per employee in this study, which was more than two weeks' pay on the average-pay base. An average pay check was computed by dividing the total annual payroll

Table 1. Direct fringe benefits, expressed as percentages of labor payroll and food service income (July 1, 1952, to June 30, 1953).

Direct Fringe Benefit	Amount	Percent of Labor Payroll	Percent of Food Service Income
Vacations	$ 8,801.05	4.15%	0.78%
Holidays	5,596.36	2.78%	0.52%
Sick leaves	6,096.03	3.03%	0.57%
Workmen's compensation	363.68	0.18%	0.03%
Total	$20,857.12	10.37%	1.94%

Table 2. Direct fringe benefits, expressed as dollars per employee and per person served (July 1, 1952, to June 30, 1953).

Direct Fringe Benefit	Amount	Cost per Employee	Cost per Person Served
Vacations	$ 8,801.05	$ 86.00	$3.26
Holidays	5,596.36	57.69	2.19
Sick leaves	6,096.03	62.85	2.38
Workmen's compensation	363.68	3.75	0.14
Total	$20,857.12	$215.02	$8.16

by the number of employees, and then by 26, the number of payroll periods in a year. By this method, an average pay check amounted to $79.77. The National Industrial Conference Board in its survey of fringe benefit costs in 1952 found that paid vacations averaged $126 per employee, which was two weeks' pay (11).

Since vacations were allowed on a graduated scale based on the length of service, a relationship might be found between this cost and labor turnover. The amount paid for vacations could change radically from year to year. A high turnover of employees in a year might result in a lower cost for this fringe benefit, but the cost of training and turnover would undoubtedly more than offset the reduction.

Paid holidays

Regular employees of Michigan State College who had been employed six months or more received pay for the six holidays: New Year's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving, and Christmas. In 1952-1953, only those employees scheduled to work on Memorial Day were paid for the holiday, since it fell on Saturday, a normal day off for most of the employees. In addition, one and one-half days plus holiday pay were granted for Christmas in 1952.

Table 1 shows that the total amount paid for holidays during the period studied was $5,596.36, the fourth-largest fringe benefit cost. It amounted to $57.69 per employee, or about eight days' pay (see Table 2). By comparison, $51.00 per employee was found to be the average paid holiday cost among fifty-nine companies studied by the Industrial Relations Counselors in 1949 (12). This cost, comparable to the amount found in the present study, was based on a higher average wage, and, therefore, represented only four days' pay per employee.

Paid holidays amounted to almost 2.8 percent of the total labor payroll for the year in the present study (see Table 1). This was almost 30 percent higher than the 2 percent figure quoted by the United States Chamber of Commerce for the nation's industries in 1951 (20). Table 1 shows that paid holidays represented 0.52 percent of total food-service income. Table 2 shows that holidays cost $2.19 per person served for the year.

Recent investigators stated that pay for six working days was almost a general standard for paid holidays in this country by 1954 (27). It would seem that because of the extra day and a half given at Christmas, 1952, the total amount paid in the period studied was substantially higher at Michigan State College than for American industry as a whole.

Paid sick leaves

Policy on sick leave with pay at Michigan State College states that the employee earns one day's sick leave per month for the first year, or a total of 12 days per year, which may be accumulated to 30 days (68). Food service employees must furnish a statement from their doctor and must also notify their supervisor concerning their illness to be eligible for sick leave pay.

Records of time allowed for sick leave and time granted to attend funerals were obtained from payroll information in the Manager's office. In the national survey of fringe benefit costs undertaken by the United States Chamber of Commerce in 1953, time granted for attending funerals was treated as a separate item (21). However, in the present study, pay for time allowed for attending funerals was negligible and was arbitrarily included with sick leave pay because of the small number of employees involved.

Industrial studies of fringe benefits note that formal sick leave plans are relatively uncommon (11, 12, 13). Most industries compute nonoccupational sickness and hospitalization insurance plans together with informal and formal sick leave plans. The Industrial Relations Counselors stated that the cost of formal sick leave plans plus insurance amounted to $38.00 per employee in 1951 for fifty-nine companies; this was their fourth-largest fringe benefit (12).

Tables 1 and 2 show the high cost of sick leaves for the residence hall food service operation for the period studied. Sick leave amounted to $6,096.03, and was the third-largest fringe benefit, outranked only by rest periods and paid vacations. It averaged $62.85 per employee, almost twice the amount quoted above for industry in general. Table 2 shows that sick leaves cost $2.38 per person served. Table 1 shows that sick leaves amounted to 0.57 percent of the total food service income for the year.

The United States Chamber of Commerce found cost of sick leaves to average 0.6 percent of the total labor payroll for the year (20, 21). In contrast, the food services of the Women's Residence Halls paid 3.03 percent of the total labor payroll in sick leave pay, as shown in Table 1. This difference was not as significant as might appear, because many industries in the Chamber of Commerce studies did not have formal sick leave plans to report. Such companies depended entirely on nonoccupational sickness and accident insurance plans.

Workmen's compensation

The Michigan Workmen's Compensation law requires payment of $28.00 per week, starting one week after the time of injury, to an employee injured while at work. It is the policy of Michigan State College to pay the employee during this first week and then to review each case individually after a month of absence from work. Although employees may be absent from work less than a week, they are compensated for slight injuries incurred on the job which are not covered by law.

The United States Chamber of Commerce found that workmen's compensation payments amounted to 0.6 percent of the labor payroll (20). Another study found that it amounted to 0.44 percent of the payroll (31). Table 1 shows the results of the present study to be substantially lower than these percentages. In the food service operations of the Women's Residence Halls, workmen's compensation payments amounted to only 0.18 percent of the total labor payroll, and 0.03 percent of the total food service income for the year (see Table 1). Table 2 shows that workmen's compensation cost $3.75 per employee for the year, and only $0.14 per person served. The cost of this fringe benefit ranked eighth out of the nine studied, and was only slightly above the cost of health service charges.

These low figures pointed up the value of close attention to safety and elimination of work hazards. The small amount paid under the legal requirements of workmen's compensation might also be coupled with the high amount paid for sick leaves for comparison with industry. From this comparison one might conclude that the reports and doctor's examination required under the compensation law discouraged employees from reporting minor injuries and encouraged them in reporting sick leave.

Indirect Fringe Benefits

The indirect fringe benefits isolated in this study were not readily available in the records kept by food service management. There was a stated policy concerning the amount of time granted for rest periods during the working day, but no cost figures were kept. Costs of laundry and uniforms furnished, as well as charges made by the college health service, were treated as operating expenses. Employees were charged flat rates for meals and the total amount charged was deducted from their checks. However, because these costs were of financial value to the employees, they were considered to be fringe benefits, and were computed as such.

Rest periods

Industrial surveys of fringe costs, without exception, include the cost of rest periods which are generally computed as a percentage of the total payroll (11, 49, 59). One investigator used 5 percent, or one-twentieth, of the total payroll as the figure covering lunch and rest periods (59).

In the present study, one twenty-fourth of the total labor payroll was used as the cost of time spent in rest periods, twenty minutes per day. Employees were allowed two ten-minute breaks per day, and usually coffee was served. Several of the food services supplied cake, cookies, cereal, or other food for employees, but the practice was different in each building. This necessitated use of an estimated figure for the cost of food served during rest periods. The Manager of Women's Residence Halls made this estimation, which was ten cents per employee per day.

Accordingly, days off were subtracted from total days of operation, and the result was multiplied by the number of regular employees, and by ten cents. This total cost of food served in rest periods was then added to the cost of the time spent in rest periods to arrive at a total cost of rest periods. No rest period cost was computed for the summer months for the five dormitories which were closed for cleaning.

In the present study, rest periods cost more than paid vacations, and were the largest fringe benefit given to food service employees, amounting to $9,652.17, as shown in Table 3. This amounted to $99.51 per employee for the year (see Table 4), and 4.8 percent of the total labor payroll (see Table 3). Two percent of the labor payroll was found by the United States Chamber of Commerce in 1953 to be the cost of rest periods and lunch periods combined, throughout the nation's industries (21).

Table 4 shows that rest periods were found to cost $3.77 per person served, and Table 3 shows that they amounted to 0.9 percent of the total income for the year in the Women's Residence Halls food service operation. These figures are only slightly higher than the $3.44 per person served and 0.82 percent of total income found in this study for cost of paid vacations, the second-largest fringe benefit.

Since the policy of allowing rest periods during the working day has become generally established and appears to be closely related

Table 3. Indirect fringe benefits, expressed as percentages of labor payroll and food service income (July 1, 1952, to June 30, 1953).

Indirect Fringe Benefit	Amount	Percent of Labor Payroll	Percent of Food Service Income
Rest periods	$ 9,652.17	4.80%	0.90%
Laundry	3,039.41	1.51%	0.28%
Meals	2,195.26	1.09%	0.20%
Uniforms	1,307.13	0.65%	0.12%
Health-service charges .	148.50	0.07%	0.01%
Total	$16,342.47	8.12%	1.52%

Table 4. Indirect fringe benefits, expressed as dollars per employee and per person served (July 1, 1952, to June 30, 1953).

Indirect Fringe Benefit	Amount	Cost per Employee	Cost per Person Served
Rest periods	$ 9,652.17	$ 99.51	$3.77
Laundry	3,039.41	31.33	1.19
Meals	2,195.26	22.63	0.86
Uniforms	1,307.13	13.48	0.51
Health-service charges	148.50	1.53	0.06
Total	$16,342.47	$168.48	$6.39

to moralé and production, any attempt on the part of management to reduce this cost might result in more costly grievances and production lags.

Employees' meals

Regular employees of Michigan State College who are provided meals at work are charged thirty cents for breakfast, forty cents for lunch, and fifty cents for dinner. Records of meals eaten by each employee are kept, and the total amount is deducted from his pay check each payroll period. Employees who work the early shift in the food services have seventy cents (two meals) per working day deducted from their checks, and employees who work the late shift have ninety cents (two meals) deducted per day.

Since check deductions for meals do not amount to the value of the meals eaten, figures which represented cash value to the food service were computed on the basis of the daily board charge of \$1.87 for residents of the dormitories. The ratio of the check deduction to \$1.20, the total possible deductions, was computed to arrive at the figures of \$1.09 and \$1.40, which were taken to be the income value of the seventy-cent and ninety-cent meal deductions, respectively.

According to advice of an accountant from the firm of Horwath and Horwath, the cost of furnishing meals to the employees was found by multiplying the cash value of the meals by the total operating expense percentage, and subtracting the check deductions. The total operating expense percentage was taken from the monthly profit and loss statements of the college accounting office; it included the expenses of food, labor, equipment, insurance, laundry and cleaning, repairs and maintenance, supplies and materials, transportation, utility services, and miscellaneous expenses of the food services.

During the summer, meals were served to employees who worked in the one dormitory which remained in operation. All food service employees working in the other units either brought their lunches or ate at this dormitory. Cost of meals was computed only for the school year which comprised fall, winter, and spring terms.

The total extra cost of employees' meals, as shown in Table 3, amounted to $2,195.26 for the period studied. This was the sixth-largest fringe benefit of the nine studied, and was found to be 1.09 percent of the total labor payroll for the year. This percentage was considerably less than the 3 percent allowed by Harris, Kerr, Forster and Company in their study of commercial operations in 1952 (26).

Employees' meals were found to amount to a little over 0.2 percent of the total food service income (see Table 3), and eighty-six cents per person served for the year (see Table 4). It is interesting to note that the extra cost of employees' meals in excess of deductions from their checks was only $22.63 per employee for the entire year (see Table 4). Any change in the standard amounts of thirty, forty, and fifty cents charged for employee meals would result in the food service making a profit on meals served to employees, a departure from established policy.

Laundry of uniforms

At the time of this study, women employees of the food services of the Women's Residence Halls furnished their own white uniforms which were laundered at the expense of the food services. Their aprons were furnished by the food service and laundered by the college laundry. Male employees wore blue shirts and trousers rented by the food service from a commercial laundry; for the purposes of this study, these rentals were classified as uniforms furnished. There was one clerk in each food service who did not wear uniforms.

The cost of laundry service for the regular food service employees was computed on the basis of an estimated average number of uniforms and aprons used per person per week. These estimated figures were obtained from each resident manager, and varied among the food services. The college laundry charged ten cents for laundering one apron and thirty-five cents for one uniform.

The cost of laundry was computed for the entire year for each food service. It was found to be the fifth-largest fringe benefit cost, about half as large as paid holidays, and slightly larger than the cost of meals. Table 3 shows the amount paid for employees' laundry to be $3,039.41, or 1.51 percent of the total labor payroll for the year. This figure is very close to the percentage quoted by Harris, Kerr, Forster and Company of 1.44 percent for 106 employees (26). Johnson (31) found laundry costs to amount to 2.61 percent of the labor payrolls of 171 cafeterias.

Johnson (31) also found that laundry cost $37.47 per employee; this compares with the $31.33 per employee for laundry in this study (see Table 4). His higher percentage of labor payroll could be attributed to an average wage in the 171 commercial operations which was lower than the wage at Michigan State College. Table 3 shows that cost of laundry was 0.28 percent of total food service income for the year, and Table 4 shows that laundry for employees cost $1.19 per person served.

Uniforms furnished

White aprons, blue shirts and trousers, and rubber gloves were purchased by the food service operations of the Women's Residence Halls and provided for regular employees' use. Resident managers estimated the average number of these items used for the year, and costs were obtained from purchase records in the Manager's office for use in the computations.

The cost of uniforms furnished, shown in Table 3, was $1,307.13, which was the seventh-largest fringe benefit cost, and ranked above workmen's compensation and health service charges. It was found to amount to 0.65 percent of the total labor payroll and 0.12 percent of the total food service income for the year (see Table 3). Uniforms furnished cost $13.48 per employee and $0.51 per person served (see Table 4).

Health service charges

Since the college hospital facilities were too limited to make a general practice of treating anyone except students, the college health service made a nominal charge for treating on-the-job injuries of regular employees. These charges were obtained from the purchase journals in each dormitory office.

. This fringe benefit cost was found to be the smallest of the nine studied, and amounted to $148.50 for all six dormitories for the entire year (see Table 3). This was less than the cost of workmen's compensation. Table 3 shows the computed percentages to be 0.07 percent of the total labor payroll and 0.01 percent of the total income. Health service charges were also found to cost $1.53 per employee (for an average of less than one call per year per employee) and $0.06 per person served, as shown in Table 4.

College Administrative Costs

All regular full-time employees receive certain benefits which are provided by the administration as a part of college wage policy. The costs of benefits such as pensions and health examinations are not charged to the employees' particular department, but are borne entirely by the college. For the purposes of this study, these benefits were not classified as fringe benefits. However, they are discussed in order to present a complete picture of the nonwage financial benefits received by food service employees.

Pensions

Industrial studies, without exception, listed cost of retirement plans as the largest item of fringe benefit costs to management. The National Industrial Conference Board in 1952 stated that pensions cost \$179.00 per employee and constituted one-third of the benefit costs (11). The United States Chamber of Commerce studies showed an increase from 3.6 percent to 5.9 percent of the total payroll for pensions in the two years between 1951 and 1953 (20, 21).

The present funded noncontributory retirement plan was adopted by the college in 1937. It was not intended to be a complete plan for the individual employee's retirement security, but was considered a basis on which the employee could build. The employee became eligible for the pension plan after six months' satisfactory service, provided he was less than 50 years of age at the time of his employment.

The comptroller of the college stated that, although the figure has not been proved by an actuary, approximately 5 percent of the total labor payroll is being allocated by the college for the cost of pensions. The computed cost of pensions was \$10,059.16 for the group of employees studied for the year 1952-1953. This was found to amount to $103.70 per employee. There were approximately eight former food service employees receiving pensions during the period studied.

Health examinations

Palmer (45) stated that 73.7 percent of the schools she studied used health examinations as part of the basis for selection of food service employees. Michigan State College required health examinations for new food handlers and for those food service employees who had been absent from work more than 30 consecutive days (65). The cost of these examinations is absorbed by the college, and not charged to the individual units. The comptroller of the college stated that a physical examination of a regular employee at the college hospital would cost approximately $5.00.

The payroll clerk furnished the data concerning health examinations given during the year 1952-1953. During the period of this study twenty-five new employees and fifty employees reinstated after absences of more than thirty days were given physical examinations at the hospital. A cost of $375.00 to the college was found for these examinations, which averaged $3.87 per employee.

<u>Miscellaneous administrative costs</u>

Michigan State College policy provided certain other benefits for employees, the cost of which could not be ascertained. These costs included administration and accounting costs of maintaining the credit union, administration of group life insurance and hospitalization plans, and provision of discounts on season tickets to college athletic events The difficulty of determining the administrative costs of benefit programs led research staffs to omit them in industrial studies (12, 20). They were not included in the present study for the same reason.

Cost of the Food Service Benefit Program

The results of this study, shown in Table 5, indicate that the total cost of the nine fringe benefits studied in the food services operation of the Women's Residence Halls of Michigan State College was $37,199.59 for the year 1952-1953. This was found to be 18.49 percent of the total labor payroll for the year, which was remarkably close to the average of 19 percent for American industry as a whole (11, 12, 20, 21). However, it should be noted that industrial surveys included pensions, but did not include cost of meals, laundry, or

Table 5. Cost of fringe benefits (July 1, 1952, to June 30, 1953).

Fringe Benefits	Amount	Pct. of Labor Payroll	Pct. of Food Service Income	Cost per Employee	Cost per Person Served
Direct	$20,857.12	10.37%	1.94%	$215.02	$ 8.16
Indirect	16,342.47	8.12%	1.52%	168.48	6.39
Total	$37,199.59	18.49%	3.46%	$383.50	$14.55

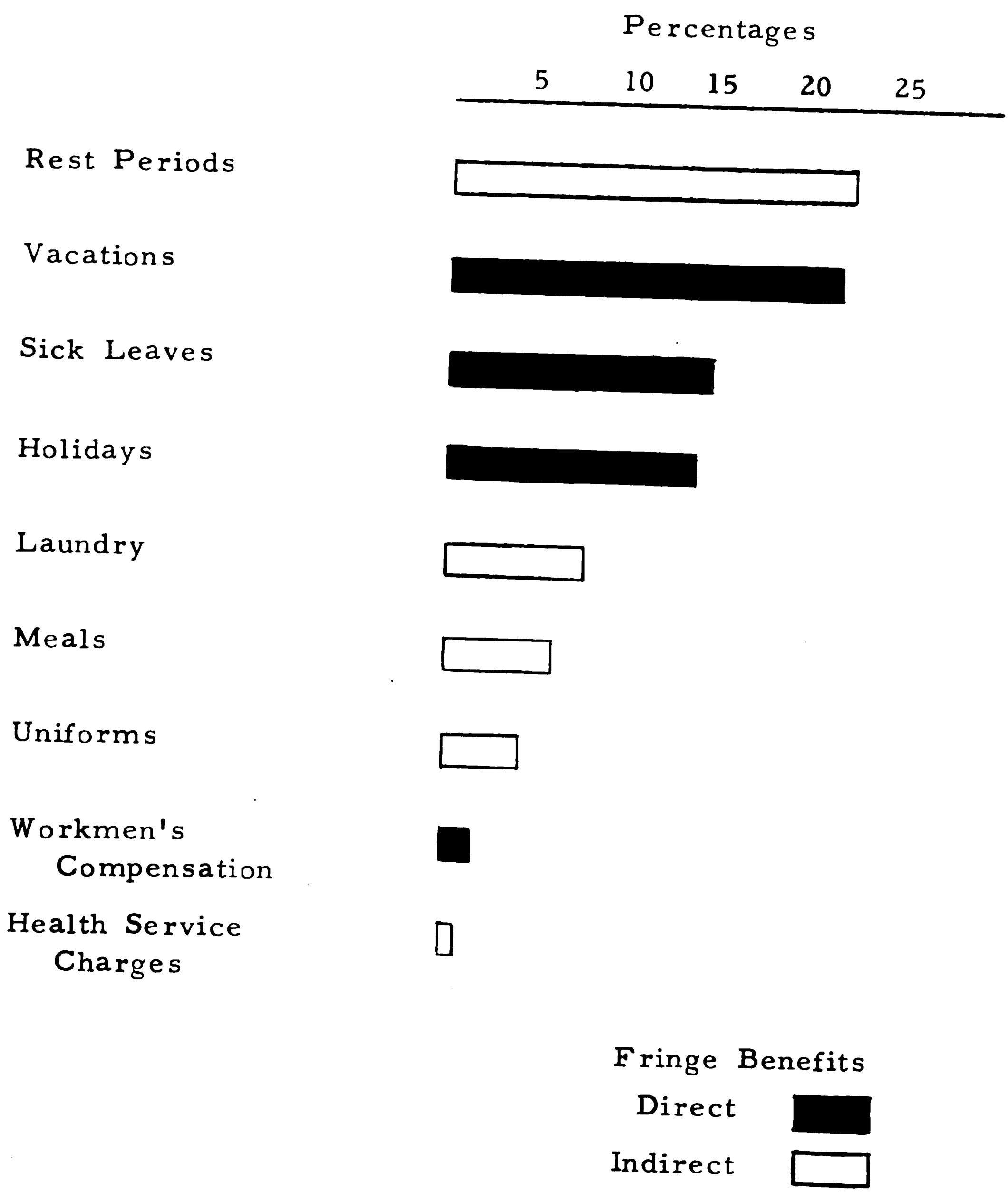
uniforms as benefits. These costs were sometimes classified as fringe benefits under the heading "Discounts on Goods and Services" (20, 21). Thus, if the college food services were charged for pensions, the cost of the total fringe benefit program would be considerably higher than that reported in industry.

The total cost per employee for all fringe benefits studied was $383.50, as shown in Table 5. On the basis of $79.77 for an average pay check, more than nine weeks' pay was received by the individual employee in the various fringe benefits. The total cost of fringe benefits was computed as 3.46 percent of the total food service income for the year, and $14.55 per person served (see Table 5).

Figure 1 illustrates the relative importance of the various fringe benefits in the total cost of the program. Considering $37,199.59 as 100 percent, rest periods cost 25.95 percent, vacations cost 23.66 percent, sick leaves cost 16.39 percent, and holidays cost 15.04 percent. The total of these four benefits was 81.04 percent of the total cost of fringe benefits. Laundry, meals, uniforms, workmen's compensation, and health service charges, taken together, comprised the remaining 18.96 percent of the total cost.

The indirect fringe benefit, rest periods, ranked highest in cost, and the direct fringe benefit, workmen's compensation, ranked eighth in cost out of the nine studied (see Figure 1). The fringe benefits studied were originally classified as direct and indirect according to cost. Other criteria might have been chosen for this classification; industrial studies usually classified fringes by type, and not by cost. For instance, payment for time not worked, payments required by law, and payments for employee welfare were sometimes used. However, since the fringe benefits analyzed in this study were treated by management as either payroll costs or operating expenses, classification by cost seemed more valid than classification by type.

Figure 1. Fringe benefits as percentages of annual cost of benefits (July 1, 1952, to June 30, 1953).



SUMMARY

Fringe benefits, or the nonwage costs of labor, have been found to comprise the largest single factor in increasing labor costs in industry. This study was undertaken in an attempt to isolate fringe benefit costs in college residence hall food services. Food service records were analyzed to find direct costs, those included in the labor payroll, and indirect costs, those regarded as operating expenses by management but of financial benefit to the employees.

The six women's residence halls at Michigan State College were centrally operated; they functioned as one organization. Therefore, data were computed for the whole operation for an entire fiscal year. Costs of each of nine fringe benefits, as well as the cost of the total benefit program, were computed as percentages of labor payroll and food service income, and also as dollars per regular employee and per person served. These ratios and percentages were compared with figures for similar fringe benefits reported in industrial surveys.

One direct fringe benefit and four indirect fringe benefits were found to comprise less than 20 percent of the total cost of fringe benefits for the period studied. These included laundry, meals,

uniforms, workmen's compensation, and health service charges. One indirect and three direct fringe benefits were found to comprise over 80 percent of the total cost of fringe benefits. These included rest periods, vacations, holidays, and sick leaves.

Rest periods were found to be the most expensive fringe benefit received by food service employees, and vacations were found to be the next most costly. Industrial studies found holidays to be the third-highest cost, but in the present study holidays ranked fourth, and sick leaves ranked third. Of the total cost of fringe benefits, rest periods amounted to almost 26 percent, vacations almost 24 percent, sick leaves more than 16 percent, and holidays about 15 percent.

When compared to the total labor payroll of the food services, fringe benefits were found to amount to 18.49 percent of the payroll. This paralleled the 19 percent of total payroll reported in several industrial surveys. On this same basis, rest periods amounted to 4.8 percent, vacations to 4.4 percent, sick leaves to 3.0 percent, and holidays to 2.8 percent. None of the five other fringe benefits studied amounted to more than 1.5 percent of the total labor payroll for the year.

A second important comparison was made by computing the dollar cost of fringe benefits per employee for the year. The total cost of the nine fringe benefits per employee was $383.50, which amounted to more than nine weeks' average pay per employee. On this basis, rest periods for the year amounted to $99.51 per employee, more than two weeks' average pay. Each employee received an average of $90.73 in vacation pay, which was in excess of two weeks' average pay. The cost of sick leaves averaged $62.85 per employee for the year. Paid holidays cost $57.69 per employee for the year, approximately eight days' average pay. Cost of laundry service amounted to $31.33 per employee, and meals to $22.63 per employee in addition to check deductions for meals.

Two other bases were used for computation of the data: percentage of total food service income and dollars per person served. In each case, these figures were too small for the period of a year to permit meaningful interpretation. However, these data may be of interest to food service managers for purposes of comparison.

LITERATURE CITED

1. Adjusting insurance coverages to fluctuating values. Insurance series no. 80. N. Y., Am. Mgt. Assn. 1948.

2. Advances in insurance coverage--accident prevention and control. Insurance series no. 78. N. Y., Am. Mgt. Assn. 1948.

3. Aspley, John C., and Whitmore, Eugene. The industrial relations handbook. 3rd ed. Chicago, Dartnell Corp. 1953.

4. Augustine, Grace M. Some aspects of management of college residence halls for women. N. Y., F. S. Crofts and Co. 1935.

5. Blaker, Gertrude G. Labor hours and labor costs in a college cafeteria. Unpublished M. S. thesis. Ithaca, N. Y., Cornell Univ. Library. May, 1952.

6. Brodner, Joseph; Carlson, Howard M.; and Maschal, Henry T. How to limit labor costs. Rest. Mgt. pp. 29-30. Sept., 1950.

7. Brower, F. Beatrice. How much do employee benefits cost? Conf. Bd. Mgt. Record. 11(no. 1):97-99,140. Mar., 1949.

8. -------- Paid sick leave for wage earners. Conf. Bd. Mgt. Record. 9(no. 10):309-11. Oct., 1947.

9. Bryan, Mary deGarmo and Zabriskie, Alice M. Labor hours and costs in house and food departments. J. H. Ec. 21:163-170. 1927.

10. Coming developments in labor relations. Monthly Labor Rev. 76(no. 6):609-11. 1953.

11. Computing the cost of fringe benefits. Studies in Personnel Policies No. 128, Conf. Bd. Reports. N. Y., National Industrial Conf. Bd., Inc. 1952.

12. Cost of fringe benefits for employees. Industrial Relations Memo No. 123. N. Y., Industrial Relations Counselors, Inc., Rockefeller Center. July 3, 1951.

13. Croft, A. C. Patterns in fringe benefits. Personnel. 25(no. 2): 11-17. July, 1948.

14. Croxton, Frederick E., and Cowden, Dudley J. Practical business statistics. 2nd ed. N. Y., Prentice-Hall, Inc. 1948.

15. Developments in social security and workmen's compensation. Insurance series no. 81. N. Y., Am. Mgt. Assn. 1950.

16. Dooher, M. Joseph, and Marquis, Vivienne, eds. AMA handbook of wage and salary administration. N. Y., Am. Mgt. Assn. 1950.

17. Dulles, Foster Rhea. Labor in America. N. Y., Thos. Y. Crowell Co. 1949.

18. Employee benefits: a survey of recent trends. (Abstract). The Mgt. Review. 62(no. 7):377-78. 1953.

19. Francis, A. Gordon. Relation of work hours to receipts. Am. Rest. Mag. 27:21,22,68. April, 1943.

20. Fringe benefits, 1951--the nonwage labor costs of doing business. Wash., D. C., Chamber of Commerce of the USA. 1951.

21. Fringe benefits, 1953--the nonwage labor costs of doing business. Preliminary report. Wash., D. C., Chamber of Commerce of the USA. 1954.

22. Fringe benefits for supervisors. Personnel Policies Forum Survey no. 6. Wash., D. C., Bureau of National Affairs, Inc. 1953.

23. Glossary of currently used wage terms. Bureau Labor Statistics Bull. no. 983. Wash., D. C., U. S. Dept. of Labor. June, 1950.

24. Hagerty, Philip E., and Galvin, Bertrand J. Fringe benefits in blue and white collar jobs. Personnel. 27(no. 1):28-35. 1950.

25. Harris, Kerr, Forster and Co. Pin-pointing your profits I. Rest. Mgt. 70(no. 1):30-31. Jan., 1952.

26. -------- Pin-pointing your profits II. Rest. Mgt. 70(no. 2): 48-49. Feb., 1952.

27. Hill, James C. Stabilization of fringe benefits. Industrial and Labor Relations Review. 7(no. 2):221-245. Jan., 1954.

28. Industrial relations and "fringe" benefits report, 1949. Chicago 1, Ill., The Employers' Assn. of Chicago, 75 E. Wacker Drive. 1949.

29. Insurance needs in a preparedness economy. Insurance series no. 90. N. Y., Am. Mgt. Assn. 1951.

30. Jarchow, C. E. Cost aspects of employee security plans. Personnel. 22(no. 6):408-21. 1946.

31. Johnson, John F. A statistical analysis of the relationship between the number of meals served and the number of employees in 171 cafeterias. Unpublished M. S. report. Chicago, Univ. of Chicago Library. Mar., 1950.

32. Kerr, Clark. Social and economic implications of private pension plans. Reprint no. 16. Berkeley, Calif., Inst. of Industrial Relations, Univ. of Calif. 1949.

33. Kirkpatrick, Russell C. Controlling labor costs I. Rest. Mgt. 64(no. 1):40,41,96,98. Jan., 1949.

34. -------- Controlling labor costs II. Rest. Mgt. 64(no. 2):34, 35,36,92. Feb., 1949.

35. -------- Controlling labor costs III. Rest. Mgt. 64(no. 3):35,36, 110,112. Mar., 1949.

36. -------- A comparative study of labor costs in cafeteria, fountain luncheonette and table service units in a commercial restaurant. Unpublished M. S. report. Chicago, Univ. of Chicago Library. Sept., 1948.

37. Knight, Fred J. Cutting labor costs. Hotel Monthly. 57(no. 679):38. 1952.

38. Labor cry: more fringe gains. Bus. Wk. no. 1229:168. Mar. 21, 1953.

39. Lewis, L. E., et al. Related wage practices in major labor markets. Monthly Labor Review. 76(no. 3):268-72. 1953.

40. Major protection against major illnesses. Insurance series no. 93. N. Y., Am. Mgt. Assn. 1951.

41. Management's stake in the welfare issue. Production series no. 192. N. Y., Am. Mgt. Assn. 1950.

42. Mee, John. The personnel handbook. N. Y., Ronald Press. 1951.

43. Myers, John H. Statistical presentation. Ames, Iowa, Littlefield, Adams and Co. 1950.

44. Operating under non-occupational disability laws. Insurance series no. 87. N. Y., Am. Mgt. Assn. 1950.

45. Palmer, Clara E. The trained dietitian in college food service. Unpublished M. S. thesis. Ames, Iowa, Iowa State Coll. Library. 1941.

46. Pension funds: fastest grower of all. Bus. Wk. no. 1229:128-30. Mar. 21, 1953.

47. Pensions and fact-finding in labor relations. Personnel series no. 133. N. Y., Am. Mgt. Assn. 1950.

48. Preparing employees for retirement. Personnel series no. 142. N. Y., Am. Mgt. Assn. 1951.

49. Rest periods: equivalent of 2 weeks with pay. (Abstract). The Mgt. Review. 42(no. 5):263. May, 1953.

50. Rowe, Evan K., and Paine, Thomas H. Pension plans under collective bargaining I. Monthly Labor Review. 76(no. 3): 237-45. 1953.

51. -------- Pension plans under collective bargaining II. Monthly Labor Review. 76(no. 5):484-89. 1953.

52. -------- Pension plans under collective bargaining III. Monthly Labor Review. 76(no. 7):714-22. 1953.

53. Scott, Walter Dill; Clothier, Robert C.; and Spriegel, William R. Personnel management. 4th ed. N. Y., McGraw-Hill. 1949.

54. Smith, Ralph B. Comparing cafeteria costs. Rest. Mgt. no. 71(no. 3):44-45. Sept., 1952.

55. Strow, Carl W. A survey of employee benefit plans. Personnel Journal. 28(no. 3):98-101. 1949.

56. Taylor, Frederick Winslow. The principles of scientific management. N. Y. and London, Harper and brothers. 1911.

57. Tead, Ordway. Instincts in industry, a study of working-class psychology. N. Y., Houghton Mifflin Co. 1918.

58. Thompson, Eleanor Gibbs. Hours and costs of administration and labor in three food service units. Unpublished M. S. thesis. Ames, Iowa, Iowa State Coll. Library. 1944.

59. Trends in health and accident insurance. (Abstract) The Mgt. Review. 43(no. 1):57-58. Jan., 1954.

60. United States government printing office style manual (abridged). Rev. ed. Wash., D. C., Supt. of Documents. 1953.

61. Vanderlee, Eileen. An analysis of labor hours and costs in six industrial feeding operations. Unpublished M. S. report. Chicago, Univ. of Chicago Library. Mar. 16, 1951.

62. Veblen, Thorstein Bunde. The instinct of workmanship, and the state of the industrial arts. N. Y., The Macmillan Co. 1914.

63. Wages and related benefits--major labor markets 1953-1954. Bull. no. 1157-1. Wash., D. C., U. S. Dept. of Labor, Bureau of Labor Statistics. 1954.

64. Wandel, W. H. Pension and insurance costs of employing older workers. Monthly Labor Review. 76(no. 9):955-58. 1953.

65. Welfare issues in collective bargaining. Personnel series no. 131. N. Y., Am. Mgt. Assn. 1949.

66. Yoder, Dale. Personnel management and industrial relations. 3rd ed. N. Y., Prentice-Hall. 1952.

67. -------- Personnel principles and policies. N. Y., Prentice-Hall. 1949.

68. Your job at M. S. C. East Lansing, Mich., Personnel Office. [ca. 1950].

APPENDIX

Table 1. Fringe benefit data sheet No. 1--Yakeley Hall Food Service* (July 1, 1952, to June 30, 1953).

Payroll Period	Dormitory Census	No. of Employees	No. of Male Student Workers	Days of Operation	Holidays
July 11	110	19		13	1
25		20		14	
Aug. 8	112	21		14	
22		21		14	
Sept. 5	428	12			1
19	434	7			
Oct. 3	450	16	24	14	
17		16	23	14	
31	432	16	23	14	
Nov. 14		16	31	14	
28		18	20	8	1
Dec. 12	430	18	19	14	
Dec. 26		17		7	1
Jan. 9	422	15	25	5	1
23	410	15	25	14	
Feb. 6		16	25	14	
20	417	16	24	14	
Mar. 6		15	22	14	
Mar. 20		17	21	14	
April 3	405	17	20	8	
17		18	22	14	
May 1		17	22	14	
15		17	21	14	
29		17	20	14	
June 12	408	17	19	13	1
June 26		17		7	
Averages	372**	17**	22***		

* This form was used for data collected from the six individual food services.

** Summer session data included in these averages.

*** Average for fall, winter, and spring terms only.

Table 2. Fringe benefit data sheet No. 2--Yakeley Hall Food Service* (July 1, 1952, to June 30, 1953)

Payroll Period	Food Service Income	Labor Payroll	Direct Fringe Benefits: Vacations	Holidays	Sick Leaves	Workmen's Compensation
July 11		$ 2,106.54	$ 270.00	$ 184.57	$ 137.50	$ 38.40
25	$ 10,028.50	1,913.90	57.23	11.45	114.44	90.00
Aug. 8		2,049.90	226.71		28.64	40.00
22	10,288.10	1,951.35	262.28	9.68		
Sept. 5		1,199.61	818.54	24.05		
19	5,664.74	379.12		35.62		
Oct. 3		1,603.66			55.68	
17		1,498.78			53.09	
31	26,226.26	1,569.42			43.00	
Nov. 14		1,546.49			27.64	
28	24,223.97	1,582.01		172.13	33.12	
Dec. 12		1,630.71			16.16	
Dec. 26	13,675.60	1,202.05		356.15		
Jan. 9		1,173.96		144.75	3.40	
23	22,993.17	1,447.40			66.32	
Feb. 6		1,466.24			193.17	
20	23,473.96	1,428.84			60.08	
Mar. 6		1,337.12			158.04	
Mar. 20	21,260.57	1,509.92			40.40	
April 3		1,318.36			18.72	
17	24,598.68	1,634.24	46.40		21.96	
May 1		1,594.64			24.16	
15		1,581.04			86.08	
29	25,248.39	1,596.24			6.80	
June 12		1,612.64		77.52	25.52	
June 26	15,415.56	1,158.84	129.20	14.88	35.08	
Totals	$223,087.40	$39,093.02	$1,810.36	$1,120.80	$1,249.00	$168.40

* This form was used for data collected from the six individual food services.

Table 3. **Fringe benefit data sheet No. 3--Yakeley Hall Food Service*** **(July 1, 1952, to June 30, 1953).**

Payroll Period	Rest Periods			Indirect
	Time Spent	Food	Total Cost	Operating Expense
July 11	$87.77	$17.10	$104.81	
25	79.94	20.00	99.74	
Aug. 8	85.41	21.00	106.41	
22	81.31	21.00	102.31	
Sept. 5	49.98	12.00	61.98	
19	15.80	7.00	22.80	
Oct. 3	66.82	16.00	82.82	
17	62.45	16.00	78.45	
31	65.39	16.00	81.39	71.6%
Nov. 14	64.44	16.00	80.44	
28	65.92	10.80	76.72	62.5%
Dec. 12	67.95	18.00	85.95	
Dec. 26	50.09	8.50	58.59	90.1%
Jan. 9	48.91	4.50	53.41	
23	60.31	15.00	75.31	65.6%
Feb. 6	61.09	16.00	77.09	
20	59.53	16.00	75.53	66.0%
Mar. 6	55.71	15.00	70.71	
Mar. 20	62.91	17.00	79.91	63.6%
April 3	54.93	10.20	65.13	
17	68.09	18.00	86.09	
May 1	66.44	17.00	83.44	62.2%
15	65.88	17.00	82.88	
29	66.51	17.00	83.51	63.0%
June 12	67.19	15.30	82.49	
June 26	48.28	8.50	56.78	76.8%
Totals			$2,014.69	

*This form was used for data collected from the six individual food services.

**Credit figure, which reduced the expense of employees' meals to management.

***Total for fall, winter, and spring terms only.

Table 3 (Continued)

Fringe Benefits: Employees' Meals: Check Deductions	Employees' Meals: Total Computed Cost	Laundry	Uniforms	Health Service Charges
		$29.52		
		34.85	$12.00	$10.00
		36.90		
		36.90	15.00	
		18.45		
		8.20	12.00	
$131.60	$24.34	26.65		
123.10	32.84	26.65		
131.70	24.24	26.65	15.00	
131.20	4.93	26.65		
109.30	17.12**	18.45	12.00	1.00
138.30	83.17	30.75		
48.20	56.23	14.35	15.00	
76.00	35.86**	7.38		
121.20	12.49	24.60	12.00	
111.50	32.25	26.65		
121.70	22.05	26.65	12.00	
105.00	24.62	24.60		5.50
135.20	12.22	28.70	12.00	
108.40	21.89**	17.22	78.18	5.00
135.90	16.99	30.75	12.00	
143.30	.88	28.70		4.00
134.20	11.83	28.70		
140.60	5.43	28.70	15.00	
140.40	19.82	25.83		
81.00	48.28	14.35	12.00	
	$317.47***	$647.80	$234.18	$25.50

Table 4. Summary No. 1, fringe benefit data--women's residence hall food services (July 1, 1952, to June 30, 1953).

Dormitory	Average Number of Persons Served			
	Census	Employees	Male Student Workers	Total
Campbell	388	17	31	436
Gilchrist	273	19	15	307
Landon	421	16	32	469
Mayo	319	13	26	358
Williams	332	15	29	376
Yakeley	372	17	22	411
Totals	2,305	97	155	2,557

Table 5. Summary No. 2, fringe benefit data--women's residence hall food services (July 1, 1952, to June 30, 1953).

Dormitory	Food Service Income	Labor Payroll
Campbell	$ 190,139.56	$ 35,135.77
Gilchrist	131,256.67	35,786.86
Landon	207,261.18	34,028.93
Mayo	157,078.59	26,820.55
Williams	166,029.39	30,318.02
Yakeley	223,087.40	39,093.02
Totals	$1,074,852.79	$201,183.15

Table 6. Summary No. 3, fringe benefit data--women's residence hall food services (July 1, 1952, to June 30, 1953).

Dormitory	Direct Fringe Benefits			
	Vacations	Holidays	Sick Leaves	Workmen's Compensation
Campbell	$1,285.16	$ 963.47	$ 772.69	
Gilchrist	1,557.47	1,017.77	964.13	$115.72
Landon	1,398.26	939.21	1,252.60	
Mayo	1,098.19	742.60	977.28	79.56
Williams	1,192.25	812.51	880.33	
Yakeley	1,810.36	1,120.80	1,249.00	168.40
Totals	$8,801.05	$5,596.36	$6,096.03	$363.68

Table 7. Summary No. 4, fringe benefit data--women's residence hall food services (July 1, 1952, to June 30, 1953).

Dormitory	Indirect Fringe Benefits				
	Rest Periods	Employees' Meals	Laundry	Uniforms Furnished	Health Service Charges
Campbell	$1,646.27	$ 410.21	$ 472.27	$ 219.60	$ 5.00
Gilchrist	1,705.74	418.49	620.06	244.80	23.50
Landon	1,571.32	326.83	481.27	224.85	6.00
Mayo	1,280.86	291.53	496.11	147.60	61.00
Williams	1,433.29	430.73	321.90	236.10	27.50
Yakeley	2,014.69	317.47	647.80	234.18	25.50
Totals	$9,652.17	$2,195.26	$3,039.41	$1,307.13	$148.50

Table 8. Direct fringe benefits, expressed as percentages of annual cost of fringe benefits (July 1, 1952, to June 30, 1953).

Direct Fringe Benefits	Amount	Percentage of Annual Cost of Fringe Benefits
Vacations	$ 8,801.05	23.66%
Sick leaves	6,096.03	16.39%
Holidays	5,596.36	15.04%
Workmen's compensation	363.68	0.98%
Totals	$20,857.12	56.07%

Table 9. Indirect fringe benefits, expressed as percentages of annual cost of fringe benefits (July 1, 1952, to June 30, 1953).

Indirect Fringe Benefits	Amount	Percentage of Annual Cost of Fringe Benefits
Rest periods	$ 9,652.17	25.95%
Laundry	3,039.41	8.17%
Meals	2,195.26	5.90%
Uniforms	1,307.13	3.51%
Health service charges	148.50	0.40%
Totals	$16,342.47	43.93%