A COMPARATIVE STUDY OF LABOR TURNOVER IN THREE CAFETERIAS

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This is to certify that the

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A Comparative Study of Labor Turnover in Three Cafeterias

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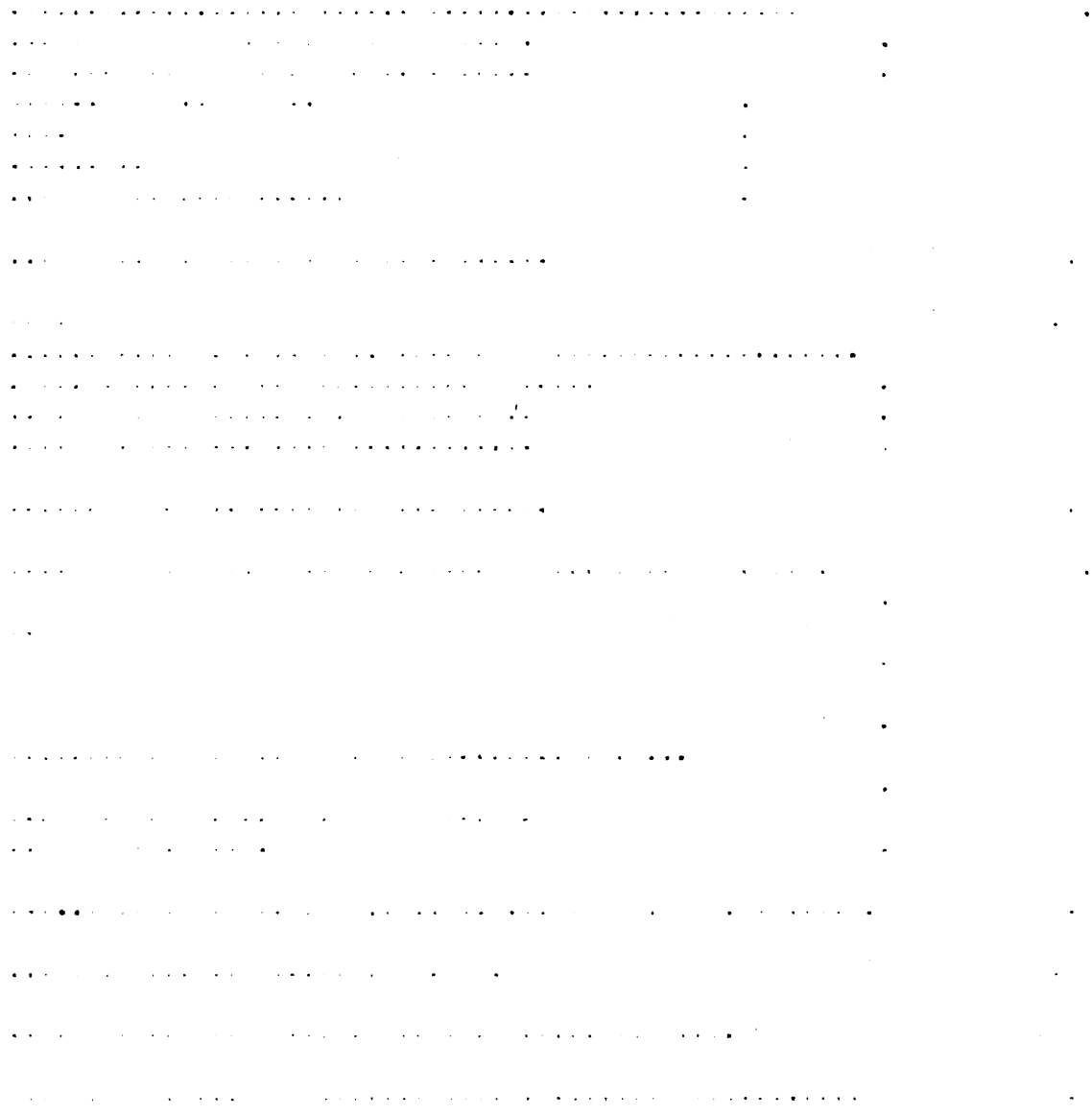

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I

INTRODUCTION

In this country workers are free to change jobs as they wish, and such a degree of freedom may become a problem of labor turnover, which refers to a movement of workers from one job to another and actually preforms a function of balance in the supply and demand of labor.

Labor turnover may distribute labor where the need is greatest, and it tends to result in equalization of the wage rates and other conditions of work which can be compared. Furthermore, there is the opportunity for workers to utilize their abilities most effectively by moving from one job to another until one is found which is satisfactory to the employee.(20)

Not all labor turnover is undesirable. In fact, no turnover of the work force for a period of more than a year may indicate a non-progressive operation. Only when the movement is excessive does labor turnover become wasteful and uneconomic. The rate of labor turnover is considered as one of the best indications of the effectiveness of management's policies and of the quality of supervision.

High turnover means waste in hiring, waste in time and cost of replacement, lag in production flow, additional cost of training, a break in job routine, and expanded tasks of scheduling and follow-up supervision of the new workers. It costs from $20 to $200, depending on the industry or occupation, to process a worker in and out of employment.*

* United States Bureau of Labor Statistics. Division of Labor Standards. ABC of Absenteeism and Labor Turnover. Special Bulletin Number 17, U. S. Government Printing Office, Washington, D. C. 1944. p. 6.

J. O. Dahl,[7] a publisher of many books on the phases of the food service industry, stated that in fifty representative restaurants in 1937, the labor turnover amounted to over 200% a year.**

According to Sumner H. Slichter,[28] a labor economist, turnover is a product of many variables: demand for labor, employment opportunities, living conditions, steadiness of work, nature and condition of work, character of the employees, character of the management, and season of the year. Numerous factors cause turnover to vary according to industry, locality, and the individual firm.

The chairman of the Employer-Employee Relations Committee of the National Restaurant Association is John R. Sabatos,[27] who speaks as a representative of the restaurant industry when he says that the past history in the industry has been marked by low wages and long hours, a high turnover rate, and the general instability of labor.

The business policies and practices that act as causes are the factors to be changed if the labor tornover rate is to be decteased to an optimum point. A reduction in cost of training would be only one of the profitable results of a lower rate of turnover. It would, therefore, seem that a study of labor turnover in certain types of local food service establishments would be of interest to those operating such establishments and to others engaged in any phase of institution work.

** Dahl, J. O. Restaurant Management: Principles and Practices. 3rd rev. ed. Harper and Brothers Publishers, New York, 1938, p. 86.

A. PURPOSE OF THE STUDY.

The difficulty of maintaining a stable working force in the food service industry is generally well known and admitted. The instability of a work force is described as labor turnover and it is recognized, that within certain limits, establishment of labor mobility is normal and the resulting labor turnover is a necessary thing. Interest in labor turnover is centered on that turnover which is excessive or unnecessary.

Based on the hypothesis that labor turnover in the restaurant industry is high, the supposition is that it is excessive and unnecessary. Therefore, this study is made to consider the existing labor turnover in various kinds of food service units; to study the nature and extent of the essential variable factors; to determine the causes for a high and for a low or optimum rate; and to formulate the modification of factors which are likely to increase or diminish the volume of labor turnover.

Whatever may be the limitations of the figures for the measurement of labor turnover, they may be used as a guide for general improvement of employer-employee relations.

B. REVIEW OF LITERATURE

Labor Turnover in General

In any business there is a chain of accessions of the new workers or the rehiring of the laid-off workers on the one hand, and of separations of employees on the other: this is the turnover of the working force.

Reports of labor turnover statistics are scrutinized for the purpose of determining the characteristics and trends of the flow of the working force in American industry.(37) W. S. Woytinsky, a Statistician and an investigator of the national labor market with respect to major social security issues, gives a brief history of labor turnover studies and describes the sources referred to and the concepts and methods used in them. The available labor turnover statistics, which cover more than three decades, 1900 to 1940, cannot be combined into a continuous series for the whole period.(37) They are three sets of data which are different in origin, coverage, and method. Part I of Woytinsky's book, Three Aspects of Labor Dynamics, is closely related to this study, but the rest of the book has little bearing on a brief study such as the present effort. He describes the variations in characteristics of labor turnover in a period of extensive demand for labor, of an increasing labor market, and in a period of heavy unemployment.

Bye and Hewett, both University Professors of Economics, say that labor turnover measures the amount of employment necessary to maintain a given average working force during a stated period of time.(2)

Florence Peterson an Economist of the U. S. Bureau of Labor Statistics, makes a generalization concerning labor turnover.(25) She describes it as the whole phenomenon of the movement of labor into and out of industrial establishments. Restrictively, it indicates the rate of necessary replacement, i. e., the number of positions vacated and filled by employees. Hence if the force is decreasing, the net labor turnover rate equals the accession rate; and, if the force is increasing, the net labor turnover rate equals the separation rate. The Bulletin of the U. S. Department of Labor reads that the smaller of the two rates, separations or accessions, indicates the number of replacements, and that the net labor turnover is the rate gain or loss per 100 of the average work force.(33)

According to Peterson,(25) the basic principle of labor turnover is the cost, to the employer, of immediate replacement of the employee.

Jucius, in his book called Personnel Management, shows that the most commonly used formula for calculating replacements is that of net labor turnover, which the Bureau of Labor Statistics of the United States Department of Labor uses to measure turnover on a national basis by lines of manufacturing, and by types of industries.(14) As Professor of Business Organization at Ohio State University, he analyses the accession and separation rates as failing to distinguish the costly aspect of turnover, that is, the replacements of separations necessary to carry on production.

Pigors and Myers,(26) both of the Department of Economics and Social Science at Massachusetts Institute of Technology, explain that,

unless outweighted by a gain, personnel mobility requires adjustments by all concerned involving some cost and so constitutes a loss. In most companies, those separations which are avoidable and unnecessary produce unjustifiable costs not only in human values but also in money.

The expression of turnover, as given by Sumner H. Slichter who is a Harvard University Professor,[28] is the percent of the number of terminations to the average work force for a given period of time. He also answers the question of why the average work force is the base number. It is fictitious, but proper for the measurement of turnover because it measures the risk of change to which turnover is exposed. This risk varies with two factors, the number of people employed and the employment period.

Both Peterson[25] and Slichter[28] imply that for a comprehensive and adequate picture of the stability of the working force one should know the number of workers who have not changed. Slichter gives the example that a yearly labor turnover of 100% might be 100% of the work force changing in the year, or one-tenth of the force changing ten times.

Brissenden and Frankel in 1922,[2] then associated with Columbia University and the United States Department of Labor respectively, made a statistical analysis of labor mobility over a ten-year period ending in 1919 in their book, Labor Turnover in Industry.

Myers and MacLaurin,[23] both of the Economics and Social Science Department of the Massachusetts Institute of Technology, show the relationship between labor turnover and the wage rate level, wage

increases, nature of the firm's welfare plans, informal labor practices, and working conditions.

Three studies on absenteeism and labor turnover were reported by Elton Mayo.[18] Two of the investigations gave strong support to the belief that the study of working groups is vital to the understanding of management-worker relationship. The third study has a particular interest for it demonstrated the urgent need of a systematic ordering of operations as a business grows in size. Office statistics of the three companies investigated did not greatly help in this study of absenteeism by Mayo in 1945.

Mayo suggests a changed thinking on labor problems in these words:*

> "There is clear evidence that the usual ideas and practices in industry are based on a general misconception of the nature of the problem and consequently on a misconception also of the nature of effective remedy."

In industry and in other human institutions the administration is dealing with well-knit human groups and not with a horde of individuals. Mayo feels that wherever it is characteristic that by reason of external circumstance these groups have little opportunity to form, the immediate symptom is labor turnover and absenteeism. One of the strongest human characteristics is man's desire to be continuously associated in work with his fellows. Financial incentive is not primary. One is mistaken to believe that behavior of an individual within the factory can be predicted, before employment, on basis of laborious and minute examination by tests of his technical and other capacities.

* Mayo, Elton. The Social Problems of an Industrial Civilization. Harvard University Press, Boston. 1945. p. 111.

Examination of his developed social skills and his general adaptability might give better results.(18)

In The ABC of Absenteeism and Labor Turnover,(32) these rates of labor turnover are referred to as a test, to some extent at least, of management policies and the way the organization puts them into effect. Basically, turnover reflects uncertainty over present or future work prospects and a search for security. The basic needs of workers, as reported in the bulletin of the United States Bureau of Labor Statistics,(32) are a continuity, a predictability, and a routine of relationship in their lives.

In a more recent work,(1) published by the Dartnell Corporation in 1945, Aspley and Whitmore discuss turnover with emphasis on company policies. Top management must determine such policies as basic wage rates, working rules, promotions, discipline, discharge, working condition, grievance machinery and job security. Concerning these, management must set basic policies which will not create abnormally high quit rates. These authors say that the heart of the turnover problem is the new employee.

Ray Hibbs, Director of Industrial Relations at the North Star Woolen Mill Company in Minneapolis, in a booklet on causes and control of labor turnover makes the following statement.(10) In order to solve the problem of labor turnover, or to understand it, we must first acquaint ourselves with the basic causes which may influence the movement of workers.

At the Lockhead Aircraft Corporation, an investigation was made as to why workers quit.(35) Salient features of the study were the

interviewing of ex-employees, the analysis of the reasons for quits, and the determination of how they differ according to sex, marital status, age, work shift, senority, and pay of the employee. The reasons were divided into two groups, occupational and personal. Instead of emphasizing the overall turnover rate and the reason which employees give upon terminating, one must study the incidence of turnover within different groups which are separated on basis of age, sex, shift, work conditions, and other job factors.

Taft and Mullins(31) report from the Institute of Industrial Management of Australia saying that, labor turnover involves an expense made up of the cost of training new employees for a job, of hiring and terminating employees, and the consequent lowering in efficiency and morale. Their study of the basic causes in terms of individuals reveals the symptoms, sex, age, marital status, intelligence, and degree of responsibility, as functions of labor turnover.

Labor Turnover in the Institutional Field

Psychic income is an intangible thing, but it is the real reason why most people work. It is the satisfaction afforded by the job. Management has a responsibility to safeguard the par values of its staff's current psychic securities. Helen Chase indicates such thinking when she says that by the time a man has developed enough to be responsible for the acts of others, he has developed a philosophy of what he will accept peacefully in a business situation and what he will fight for or against.(6) Miss Chase, who is a personnel analyst for the New York State Department of Civil Service, adds that the

appreciation of the job done and the person who did it is a part of organizational responsibility.

Navighurst, an editor of Food Industries Magazine,[24] made a comparison of increases in wages and of productivity. He says there was a 91% increase in wages from 1939 to 1947, and that there was a 1% to 9% increase in workers productivity in 1945 to 1946. The problem, then, is to further promote means for perfecting mechanical abilities, materials handling, and processing lines and this trend imposes competitive pressures on all food manufacturers. Although this concernsthe foods industry in general, it applies to the food service field as well.

There is the advantage of an organized program of personnel service to promote better understanding of aims and objectives of the organization. The employees of the Hurley Hospital in Flint, Michigan, have an enviable record for efficient and effective working together.[11] The personnel service factors or features responsible for the effective operation are (1) maintainence of programs for the education of employees in good personnel relations, (2) interpretation of procedures to the employees, (3) maintainence of an orientation program, (4) maintainence of a counseling service, and (5) publication of a four page monthly news letter for employees.

In a thesis survey made by Ruth McNeal in 1946, on the administrative practices in the management of student employees in residence hall food service[20] it was shown that, in 88.2 perSent of the cases, students work the entire academic year and that the length of time a student was employed was most frequently two years. In this thesis, McNeal states that the most frequent causes for resignation from jobs

on the part of student employees were draft calls, leaving school, too heavy class schedules, moving into fraternities or sororities, graduation, and too much money. She also states that the most common cause for discharge was chronic tardiness or absenteeism.

There are new conceptions of labor costs in the restaurant field according to Kirkpatrick,[13] who is now a Field Representative of the Restaurant Administration Program, University of Chicago. Labor requirements are usually expressed as percentage of receipts. Newer relationships of the cost of labor are the following, customers per labor hour, labor cost per customer, minutes of labor per customer, receipts per labor hour, and receipts per employee per day. These newer methods of computing cost probably give a more accurate picture of labor efficiency, and offer a reasonably comprehensive picture of labor productivity in mass-feeding operations.

Since labor turnover is considered as unnecessary labor cost, those factors which will help to lower the turnover rate may lower costs. However, there are certain characteristics of the food service industry that tend to keep the turnover rates and the labor cost high.

A cafeteria is a restaurant which is a factory except that the work is seldom transported to the workers as on a production assembly line. R. D. Mock[22] says that engineers call this restricted walking, walking through congested areas, over slippery floors, or under heavy load. Directional control is required to steer through limited clearance or toward a small target. Manual control is required to prevent damage.[22]

Grace H. Wooley, Service Manager of the Editorial Staff of the Restaurant Management Magazine, says that operators and managers of food service units realize this and many consider properly fitted shoes, good care of the feet, and non-slip qualities and resilience of flooring all very important factors in the comfort and the productivity of workers.(36) The efficiency of equipment layout is important from the standpoint of sanitation as well as job performance. Sanitation is as important in restaurants as in hospitals. The sanitation of a cafeteria presents a problem. A. M. McCullough, Public Service Training Director of the Connecticut State Department of Education, and D. L. Dungan, Executive Housekeeper of the Hartford Hospital in Hartford, Connecticut, says there are two phases of training for housekeeping work (1) teaching the processes of cleaning and (2) establishing the proper attitudes toward such jobs.(19) The unskilled employees of food service work are those who do most of the housekeeping and the maintenance of sanitation. Building pride in the job to be done is one phase of training these unskilled workers. Management must develop the proper employee attitude and must analyze the worker's relationship and feeling toward the job of cleaning. Then training for proper attitudes for human relations, housekeeping responsibilities, safety, and sanitation must follow.

There is an ample supply of manpower, but the desire on the part of people to work in kitchens is no longer there. The reason is basic: most kitchens are undesirable places in which to work. These statements were made by Daniel J. Brogan who is Sales Manager for G. S. Blodgett Co., Inc., manufacturer of bake ovens for institution kitchens.(3)

With the lack of desire to work in institution food service, and with the wrong attitude towards the duties to be done by the unskilled workers, there is a two-fold problem in training the employees. The training must start with those already in the plant. If it is effective the labor turnover rate will be reduced toward an optimal point.

The food service industry does not rely upon advertising to build up business as much as upon salesmanship and the reputation for good food or good service or atmosphere. Mr. H. F. Dugan, President of the American Hotel Association, says that what is needed is a practical vocational or occupational training program to persuade more people to make foods work their career and especially to interest Americans to come into the kitchens.(8) An analysis of methods used in training is the first step in the development of a training program. There is need of training on four levels (1) self-administrative.(2) executive (3) supervisory and (4) worker level according to Austin Iglehart, President of General Foods Corporation.(12) Training is necessarily done from the top down, and morale of the workers is improved with effective training and follow-up.

Bert O'Bierne*, of the Economics Department of Michigan State College, is of the opinion that labor turnover rates indicate the morale of the plant. If turnover is excessive morale is low, and if turnover is optimum, morale is good. Then, upon this supposition it may be said that the cafeteria with the highest labor turnover in this study probably has the lowest morale, which would lead one to think that it does not have an effective training program.

* Mr. O'Bierne made these statements during an interview concerning this study.

Michael Jucius explains that accessions to the payroll may be a sign of a profitable situation and separations may indicate an inescapable reduction of the labor force. It is when a firm fails to hold some of its employees, that it must meet the expense of hiring and training replacements merely to maintain production.(14)

The hiring and selection of new employees will determine what employees there are to train. With the inauguration of the Veterans' Training Program, Charles Magel, who is Assistant Manager of the Burlington Hotel in Burlington, Iowa, feels that there is a definite trend toward development of younger kitchen personnel. He says, "Kitchen morale has been improved with the trend toward younger workers."(15)

With good training to improve morale, the unnecessary turnover of labor should be reduced; which, in turn, would reduce the training needed for new employees. Training for employees on the job must be continuous and improved from time to time. Margaret L. Mitchell,(21) Vice President in charge of Food Production of The Stouffer Corporation, says that careful and concentrated training develops skillful workers in a short period of time. She goes on to say that quality production can be achieved with better service at lower labor costs, and the employees have greater satisfaction in their jobs. Those who carry the responsibility in food production, whether it be for a hotel, restaurant or other institution, must not forget that no matter what their own abilities and skills in food production are, they can not operate a kitchen alone and that therefore, they must train the minds and hands of their employees.

Besides reducing labor turnover by training, it can be done by motivation, work simplification, and rearrangement of supervision. Sidney Margolius,[16] Camp Ross in Wilmington, California, showed that labor turnover could be reduced from 20.3% to 3.0% by these methods.

George Flood and Murray Lewis,[9] give a measurement for supervisory efficiency. This measurement is the trend of the production per month compared to the trends of absenteeism and labor turnover per month. If production trend is upward and absenteeism and turnover trends are downward, supervisory efficiency is effective. The employee training program is essential for progressive business operations. If management of food service units progresses, it will be done by introducing new material, methods, and workers and by continual training and constant supervision of both the old worker and the newly hired one, as well as, by induction training of the new employee.

Many managers consider personnel the most serious problem confronting the food service business. J. O. Dahl[7] has found that chain organizations have a much lower rate of turnover than individual restaurants. He attributes this to the fact that, because of their own business-like management, they recognize the value of a good employee and the cost of hiring a new one. The high rate of labor turnover is one of the results of less business-like management.

There are external causes of labor turnover which management can only attempt to deal with. But there are internal causes which management can eliminate by improving the policies, methods and practices of

induction, placement, training, and supervision.* The techniques and tools, i. e., job classification, wage structure, system of promotion, time schedules, and grievance procedure can be improved upon. Employee service plans can be made for meal and rest periods, health and recreation programs, for vacations and sick leave, as well as uniform and laundry service. Good over-all management tends to minimize the causes. So, labor turnover rates, are to an extent a test of managerial policies and the way the staff puts them into effect.*

J. C. Aspley and E. Whitmore(1) of the Dartnell Corporation, present company policy as an all important factor in variability of labor turnover. From a magazine survey these authors report, in order, what employees want most from their jobs.

1. Job security, insurance and savings plans, old-age pension.
2. Opportunity for advancement, training, education.
3. Medical, recreational facilities.
4. Pride in the company.
5. Attention from the boss.
6. Wage, bonus.
7. Working conditions.
8. Employee representation plans.
9. Chance to show individuality and responsibility.
10. Vacations with pay.
11. Pride in work.

These are evidently important factors in reduction of turnover.

History of Labor Turnover Statistics

The first records of labor turnover were collected by M. W. Alexander, who was then with the General Electric Company. He collected

* U. S. Department of Labor, Division of Labor Standards: The ABC of Absenteeism and Labor Turnover, Serial No. R. 487, U. S. Government Printing Office, Washington, D. C., 1944.

parts of the country. These were reported quarterly in the Monthly Labor Review. In July of 1929, the Bureau of Labor Statistics continued this survey and has published a monthly report of labor turnover statistics to date.(37)

History of Methods Used

The Rochester Method utilized weekly measures of the ratio of the total number of separations to the average number of employees on the work force during that period.(37)

Brissenden and Frankel(2) provided a replacement rate as the turnover rate, which would be the same as either the accession or separation rate, whichever is the smaller. This interpretation showsthat all or total changes would be the mobility of labor or the flux rate which is the sum of the accessions and separations..

Since 1919, the studies have listed five series of labor turnover statistics, accessions and four kinds of separations.(37) In 1940, two new series were started making five separation series and three accession series. Miscellaneous separations were not considered quits, so the total separations were composed of quits, discharges, lay-offs, and miscellaneous separations. Total accessions include new hires and rehires of personnel after three months separations.(33) and (37) Since 1930 enumeration of accessions and separations has been by calendar months.(40)

At the present time, 1949, the Bureau of Labor Statistics computes average monthly rates for an entire industry or several. The data are obtained each month from a representative sample of establishments by

figures from twelve metal working establishments for 1912 based on 40,622 workers.(28) W. A. Grieves of the Jeffery Manufacturing Company computed other turnover figures in 1913 based on turnover in a steel mill said to be typical of the industry. The U. S. Department of Commerce and Labor published these figures based on records of a mutual benefit association.(28) More inclusive data for 1913 to 1916 was compiled by Summer H. Slichter(28) and (37) for the United States Commission on Industrial Relations.

The first world war period was a time when interest in labor turnover problems was high. In 1915-16, an investigation was begun by the Bureau of Labor Statistics, covering 1910-15 generally and 1913-14 in detail. The records of this investigation were not official but they were published.(37)

After 1918 the National Conference of Employment Managers was held in Rochester, New York. At this conference new inquiry was made into the information of the Bureau of Labor Statistics and separations and accessions were studied. This is called the Rochester formula, which is the expression of labor turnover as the rate of separation.(2) The results of the inquiry were published in a series of articles in the Monthly Labor Review in 1918-19.*

With a low point of turnover occurring in 1921, labor turnover was no longer a paramount problem, and the Bureau of Labor Statistics discontinued its investigations.

In January, 1926 the Metropolitan Life Insurance Company began to collect current reports on separations and accessions in various

* Monthly Labor Review - Vols. 6, 7, 8, 9.

means of a mail questionnaire.(33) The sample coverage is 4,400,000 employees in manufacturing, 250,000 in mining and 600,000 in public utilities.(33) The series for manufacturing does not include those lines of activities in highly seasonal industries, because the fluctuations of employment tend to obscure the turnover characteristics of those which are non-seasonal.(33) Therefore, the BLS* does not record turnover rates for the restaurant industry.

*BLS signifies Bureau of Labor Statistics of the U. S. Department of Labor.

II

DEFINITION OF TERMS USED*

Labor turnover refers to the movement of workers into and out of employment with respect to individual firms and provides the single monthly turnover rate for each firm. The data were obtained from figures in the files and records for a two-year period in the three types of cafeterias. The turnover rates are based on reports covering workers employed on an hourly and a monthly basis in one establishment for each type of cafeteria. Sampling covered approximately 85 employees in campus cafeteria, 55 in the commercial, and 65 in the industrial.

Labor turnover items are referred to as personnel changes, divided into accessions and separations.** Turnover does not consider transfers from one place to another within the same company. Accessions are all additions to the work force, whether new or rehired employees. Returns to work after lay-offs or any authorized absence of at least 7 calendar days are considered as accessions.** Accessions rate is the total number of accessions per month divided by the average working force for the same month, multiplied by 100. Separations are all terminations of employment during the calendar month which last at least 7 days. Separations are classified according to cause: quits, discharges, lay-offs, miscellaneous separations. The separation rate is the total number of separations per month divided by the average work force per month and multiplied by 100.

* USDL Explanation Notes. Mimeographed B 49-847 Sept. 26, 1948

** For this study accessions were not divided because information could not be obtained as to whether the action was a new hire or a rehire.

Quits are terminations initiated by the employee and are, therefore, voluntary. Unauthorized absences of 7 consecutive calendar days are considered as quits. Quit rate is the total number of quits per month divided by the average work force for the same month and multiplied by 100. Discharges are terminations of employment initiated by the employer, for such reasons as violation of rules, incompetence, insubordination, laziness, and incapability. Discharge rate of turnover is the total number of discharges per month divided by the average work force for the same month and multiplied by 100. Lay-offs are terminations lasting or expected to last 7 consecutive calendar days, initiated by the employer without prejudice to the employee. Terminations with definite instruction to return to work within 7 days are not regarded as lay-offs. Vacation or suspensions of operations during inventory or rebuilding are not considered as lay-offs. Lay-off rate is the total number of lay-offs per month divided by the average work force for the same month and multiplied by 100. Miscellaneous separations are terminations due to permanent disability, death, retirement, pension, or entrance into the armed forces. Miscellaneous separation rate is the total number of miscellaneous separations per month divided by the average work force for the same month and multiplied by 100.

The employment figure used as a base for computation is the average work force for each month. Average work force is the average of the number of employees on the payroll at the beginning of the month and the number of employees on the payroll at the end of the month divided by two.* Work forces are classified according to the employees,

* Jucius, Michael J. Personnel Management, Richard D. Irwin, Inc., Chicago, 1947, p. 659.

full time or part time, skilled or unskilled, union members or not, student employees, adult or child age employees. Full time employees are those who work more than 6 hours in any one day. Part time employees are those who regularly work 6 hours or less in any one day. Skilled workers are the cooks, bakers, steamtable servers, coffee makers, clerks, supervisors and managers. Unskilled workers are all workers other than cooks, bakers, steamtable servers, coffee makers, clerks, supervisors and managers. Union members are workers who are members of a union whether in a collective agreement or not. Employees, who are not union members, are all other workers. Student employees are workers over 16 years old and enrolled in school at the time they are employed. Adult employees are workers over 16 years of age and who are not students. Child age employees are workers under 16 years of age, either student or non-student help.

Standard work force is a term used to refer to the actual number of employees required to maintain the operation.*

Various terms are used to describe the factors which have a bearing on turnover of labor. Patron check is the average cash register sale per person per day per month. Average daily patron count is the average total number of patrons per day per month. Man hours are an average of the total number of man hours of labor per month and either per day or per week. Average daily receipts are the average of total

*Brissenden and Frankel explain standard work force as follows. The number on the payroll is a 'padded' base figure, because of the varying numbers of 'dead' employees included, that is employees whose names are still on the payroll but who have ceased to be actual employees. The margin of excess of the payroll number over the standard work force number shows the extent to which payroll records are lists of names which do not represent employment.
Brissenden, P. F., and Frankel, Emil. Labor Turnover in Industry. Macmillan Co., New York 1922. pp. 9 and 10.
Standard work force is used, in this study, as a base figure for the analysis of wage structure.

sales per day for the month. Labor cost percentage is the monthly average of daily receipts divided by the daily cost of payroll.

III

DEFINITION AND DESCRIPTIONS OF THE THREE TYPES OF CAFETERIAS

Campus Cafeteria

Definition.

A campus cafeteria, as used in this study, is a self-service food operation on a college campus. The purpose is to afford an eating place for students, not boarding in the residence halls, for members of the faculty and other employees of the institution, and for visitors to the campus. A secondary purpose is to maintain the operation at a small profit, enough to make it self-sustaining.

Description of Unit Studied.

The campus cafeteria is one of the food service places on the campus of a State College, which has an enrollment of approximately fifteen thousand students. The food service, housed in the student union building, includes one cafeteria, a grill, boarding club, private dining rooms, and a large banquet room.

The cafeteria and central kitchen is in the basement, the grill on first floor, and the other service rooms are on second floor. The seating capacity of the cafeteria is 175, the grill 350. The various catering rooms can seat as many as 1000. The cafeteria has only one line from which to serve the patrons, and the grill uses a modified self-service counter. Both units are open for business seven days a week.

The menu planning and buying are done by the supervisory staff of the central kitchen. There is a supervisor responsible to the manager in each of the units.

The clientele of this particular campus food service unit is composed of college students, college staff and employees, visitors to the campus, townspeople, and numerous conference and convention groups.

Commercial Cafeteria

Definition.

A commercial cafeteria is a self-service operation primarily established for the purpose of making a profit. A secondary purpose may be the building of good will by offering convenient service to the patrons of the establishment.

Description of Unit Studied.

The commercial foods service unit studied is a part of a chain retail grocery and bakery business in a city of ninety thousand population.* There are five stores in the chain all located in central Michigan.

The food service includes a cafeteria, a lunch counter, and a banquet room in the building plus outside catering for six days every week. The lunch counter is located on the street floor and it is surrounded by the grocery, meat, delicatessen, and produce sales counters. Thus, the people who eat are jostled by the customers in these various departments. The cafeteria and kitchen occupy the second floor, and adjacent to the banquet room in the basement is a pantry and the dishwashing room which serves all three food departments, the food and dishes being transported by means of a dumb waiter.

* This population figure is the 1949 estimate made by the Office of the State Journal, Daily News Paper of Lansing, Michigan.

The lunch counter service area is rectangular in shape and patrons are served on all four sides. The fountain is at one end and the coffee urns, steamtable, grill, and sandwich table are located down the middle inside the counter. The seating capacity is 74 stools at the lunch counter, 250 chairs in the cafeteria, and 125 in the banquet room.. The one cafeteria line forms three sides of a rectangle conforming to the "L" made by the service counter.

The chef prepares the food for the lunch counter and banquets, which includes outside catering, as well as the cafeteria menu. In addition, sale items for the delicatessen are prepared in the central kitchen. Although the store is essentially a bakery, the pies and cakes for sale in the cafeteria are not made in the bakery but in the cafeteria kitchen. In addition to actual preparation of food, the menu planning, buying, and serving for all the food service units are responsibilities of the chef. There is a hostess in the cafeteria dining room and a supervisor is in charge of the lunch counter operation. Coordination of other phases of work is handled by the store's executive staff. The production staff has eight employees; cafeteria service nine; lunch counter twelve; dishroom five; and there are two porters and one pot washer.

The lunch counter gives quick service to the shoppers and many employees of the offices and stores in the downtown area.. The cafeteria offers a more leisurely service to the same clientele. Service club members and townspeople patronize both the cafeteria and the catering services.

Industrial Cafeteria

Definition.

An industrial cafeteria is a self-service operation housed within an industrial plant and operated for the purpose of feeding the 5000 to 7000 workers employed.* If concessionaire operated, the profit motive enters in.

Description of Unit Studied.

The industrial food service for eight years has been under the management of a catering concern which has three other places of business in addition to a catering service.

The food service in the industrial plant includes two cafeterias and four canteens, each in a different building at various locations on the factory grounds. The cafeterias seat 660 and 550 respectively while the canteens seat approximately 300 each and all are operated six days per week. There are four lines in the two cafeterias. The main and largest cafeteria is located on the second floor of the building. At this same location is the central kitchen and food storage, from which prepared food is transported by truck to the cafeteria and canteens in other buildings. There are four dishwashing units on the grounds.

Each canteen and each cafeteria has a supervisor in charge who is responsible to the manager. The supervisor in the main cafeteria and central kitchen controls menus, food standardization, preparation, and buying.

* These figures were obtained from the manufacturing plant in which the industrial cafeteria is housed.

The patron groups are the factory workers, office employees, administrative staff, and business associates, who are at times, entertained here.

IV

PROCEDURES USED IN THE STUDY

The managers of the three cafeterias surveyed in this study were interviewed to obtain the general plan of the payroll and the kinds of personnel records kept.

A data sheet was compiled for the collection of information including all the necessary information, even though for some items only one of the places could give it. A sample form is shown on page 117 of the Appendix. However, in two of the studies, preliminary searching of personnel files and tabulating of the information was necessary to put it into usable form. The information given on this sheet records certain data for every termination and accession of employment occurring in each of the twenty-four months of the study period. The chart shows whether the employee was part time or full time worker; skilled or unskilled; union member or not; student, adult or child; whether the personnel change was a hire or separation, quit, discharge, lay-off, or a miscellaneous separation; the reasons for voluntary terminations; job held and wages paid at time of termination; length of service of separated employee. Totals of all kinds of personnel changes and the average work force were calculated for each month.

The rest of the procedure follows the pattern of a three-directional plan (1) recording of calculations on monthly and average turnover rates, (2) determining the monthly and two-year averages of patronage and labor costs, (3) compiling and classifying the reasons given for quits.

Labor turnover rates were calculated according to the definitions on pages 20-23. Labor turnover is commonly expressed in two rates -- one for separations and the other for accessions. The Bureau of Labor Statistics, U. S. Department of Labor, uses the following method to compute the separation rate:*

1. Find the average number of employees by adding together the number on the payroll on the first and last days of the month. Then divide this total by two.
2. Divide the total number of separations during the month by the average employment figure.
3. Multiply this number by 100 to get the rate per 100 employees for the month.

Expressed as a formula, this method is

$$\text{Separation rate (or percentage)} = \frac{\text{Total separations per month}}{\text{average number on payroll for the month}} \times 100$$

Monthly figures may be converted to an annual rate by multiplying the actual monthly rate by a factor equal to 365 divided by the number of days in the given month. Unless this is done, monthly figures are not strictly comparable with annual figures, since months vary in length.**

* Pigors, Paul and Myers, Charles A. Personnel Administration McGraw-Hill Book Company, Inc. New York, 1st ed. 1947, pp. 100-101.

** To avoid the necessity for adjusting to calendar variation, standard working periods are used and they are named according to the nearest month. This standard working period is 26 days for each of the twenty-four periods. Since this standardized time period is used and in as much as the averages of the twenty-four monthly rates are not compared to any other turnover rates, no weighting of the figures is necessary.

The rate for accessions, quits, lay-offs, and discharges can be computed by the same basic formula. When the separation rate is subtracted from the accession rate, the result is positive or negative according to whether the company's force is expanding or contracting.*

The numbers and the calculated percentages were recorded for the total average work force, and part time, full time, skilled, and unskilled work forces. For each kind of work force determinations were made to indicate the turnover rate of quit, discharge, lay-off, miscellaneous separation, total separation, accession, total change, and net change rates. The changes in the labor turnover rates for the total average work force from month to month are shown in Figures I, II, III, and VIII on pages 38, 39, 40, 99, and in charts on pages 118 to 136 in the appendix.

An average was taken of each kind of turnover rate for the 24-month period except in the study of the campus cafeteria for which a 21-month average is used.** This is the average of the monthly turnover rates and for each cafeteria these are summarized on the same chart for ease in comparison. This chart is Table I, page 34; Table IV, page 43; Table V, page 45.

Other summary charts show the calculated averages for patron data and labor cost data for all units studied. These are shown on pages 51, Table VIII, and 55, Table IX. The charts used for tabulating the

* Pigors, Paul and Myers, Charles A. Personnel Administration. McGraw-Hill Book Company, Inc. New York, 1st ed. 1947, pp. 100-101.

** During the last three months included in this study, June, July, and August of 1948, the campus cafeteria was moved to and operated on South Campus because the union building was being reconstructed.

reasons given for quits are Tables XIV, XV, XVI, pages 77, 83, and 91. This was done for the twenty-four month period in each unit. The frequency of reasons given for quits in each cafeteria in the twenty-four months are expressed in numbers and percentages. This chart, Table XVII is on page 97.

The various charts were analyzed for each cafeteria situation separately. Then a comparative analysis of corresponding information in the three types of cafeterias was made. This two-step analytical procedure is done to obtain the (1) labor turnover data, (2) data on patronage and labor cost related to turnover rates, and (3) reasons recorded for quits.

Finally a comparison was made of the analytical (not statistical) correlation of the related data and the reasons date to the labor turnover rate data in the three types of cafeteria. Conclusive statements are drawn from the summary.

V

DISCUSSION

A. Comparison of the Labor Turnover Rates of the Total Average Work Force of the Three Types of Cafeterias. Table I, page 34.

Labor turnover, restricted to one figure, is expressed as net labor turnover, which indicates the rate of necessary replacement. Hence, if the work force is decreasing net labor turnover equals the accession rate and if the work force is increasing, net labor turnover equals the separation rate.* This measures the amount of employment necessary to maintain a given average working force.** During an extensive demand for labor the work force will increase, and when the demand for labor is on the downward trend the average work force is decreasing.

In a period of extensive demand for labor the correlation between the accession and separation rates is accounted for by the fact that the net changes in employment were a small part -- not more than 18% -- of labor turnover. The extent of correlation between accession and separation rates is determined mainly by the number of replacements.(38)

The September 1946 to September 1948 period is a post-war period, but as is shown by the rate of net changes made in the work force in each of the three cafeterias, an extensive supply of labor had not yet appeared. Therefore, the highest net change for the

*Hibbs, Ray. Labor Turnover: How It Can Be Reduced by Sound Methods. North Star Woolen Co., Minneapolis, 1944. p. 9. Peterson, Florence. Labor Economics. Harper Brothers Publishers, New York, 1947. p. 216.

**Bye, Raymond T. and Hewett, Wm. W. Applied Economics. F. S. Crofts and Co., New York, 4th ed. rev., 1947. p. 160.

TABLE I

Summary of the 24-month averages of the Monthly Turnover Rates in Each Type of Cafeteria, September 1946 to September 1948

Column No.	2	3	4	5	6	7	8	9	10
Type of Cafeteria	Average Work Force	Quit Rate %	Discharge Rate %	Layoff Rate %	Miscellaneous Rate %	Separation Rate (Sum of Cols 3,4,5,6.) %	Accession Rate %	Total Change Rate (Columns 7 & 8) %	Net Change Rate (Column 8 minus 7) %
Average of 24-months totals for Total Average Work Force									
Campus*	84.6	5.5	2.09	.27	.12	7.98	6.84	14.82	-1.14
Commercial	55.6	14.14	4.43	---	.6	19.17	18.41	37.58	- .76
Industrial	64.4	6.57	4.2	---	.81	11.58	10.97	22.5	- .61

*The average rates given for the Campus Unit studied are for a 21-month period.

entire study period is -1.14%, a reduction of work force in 21 months in the campus cafeteria. This study was made during a post-war period, and the demand for labor in the three cafeterias of this locality is less extensive but only very slightly as will be shown later.

Therefore, using the accession rate to restrict the expression of labor turnover rates for the total average work force to one figure, the commercial cafeteria had the highest rate of turnover, 18%. The industrial cafeteria's labor turnover rate is 10.9%, which is about 3% more than the 7.9% labor turnover rate of the campus cafeteria.

Without restricting the expression to one figure, labor turnover may be shown as a separation rate and an accession rate. A further breakdown will show what kind of separations* or accessions** are the highest rates. In each of these six kinds of turnover rates, with the exception of the miscellaneous separation rate and the lay-off rate, the campus has the lowest average for the period studied and the commercial cafeteria has the highest. The miscellaneous separation rate is highest in the industrial unit and lowest in the campus cafeteria, but no miscellaneous separation rate is above 0.8%. A lay-off rate occurred only in the campus cafeteria where the average for the period studied was 0.27%. The discharge rate is evidently subject to less extreme fluctuations than the lay-off rate and it makes up from month to month a rather constant percent of the total separations.(2)

*Kinds of separations are quits, discharges, lay-offs, and miscellaneous separations.

**In this study, accessions are not divided into hires and rehires because such information was not available.

The discharge rates are within 0.2% of each other in the commercial and industrial cafeterias. These are twice as high as the campus discharge rate but the highest is only 4.4%. Comparing these to the nearest tenth of one percent the three are ranked separately with the commercial having the highest and the campus having the lowest discharge rate. The average of the monthly quit rates is highest in the commercial cafeteria and lowest in the campus.

Since there was a lay-off rate in only one unit and by its exclusion there is no change in the relative position of the three cafeteria rates, and since the miscellaneous separation rates are less than 1% and include such unavoidable separations as those due to death, permanent disability, or induction into the armed forces, these two rates will be excluded from the following statement. Generally speaking, and restrictively, the commercial cafeteria has the highest rate of turnover. The total work force of the campus cafeteria has the lowest labor turnover rates both generally and restrictively. The industrial cafeteria average work force is the basis for rates of labor turnover which are, at the most, only 4% more than the campus rates and as much as 8% less than the commercial rates, hence the industrial cafeteria has labor turnover rates similar in percentage to the campus rates.

To show the volume of personnel action handled in each place the separation and accessions may be added.* In round numbers the table following shows the number of workers who were hired and separated.

* Figures I, II, and III are graphs which show the separation and accession rates from month to month. These are on pages 38, 39, 40 at the end of this discussion.

TABLE II

VOLUME OF TURNOVER IN NUMBERS

Cafeteria	Total Changes	Average Changes per Month	Average Monthly Work Force
Campus	338	14.08	--
Campus	275*	12.9*	84*
Commercial	500	20.7	55
Industrial	350	14.6	64

*The figures are based on the first twenty-one months of the study.

Of those records investigated in this study, the commercial unit maintains the lowest average work force, but it has the highest volume of personnel changes. The campus unit has the lowest average number of changes, but it has the largest average work force. This shows that the percentage of turnover is smallest in the campus and highest in the commercial cafeteria.

Monthly

Separation and Accession

Turnover Rates

September 1946 to September 1948
in a
Campus Cafeteria

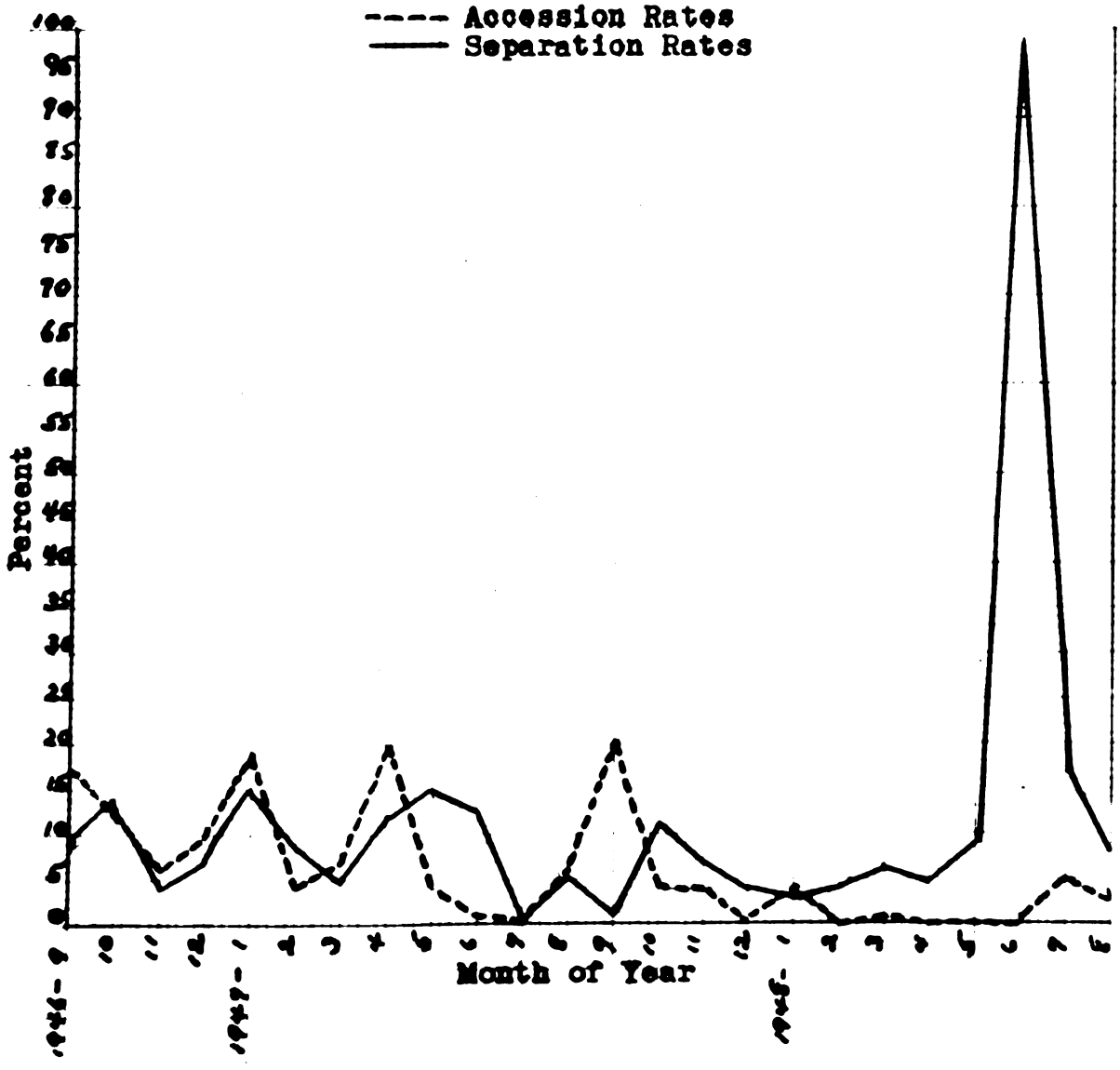

FIGURE I

Monthly

Separation and Accession

Turnover Rates

September 1946 to September 1948
in a
Commercial Cafeteria

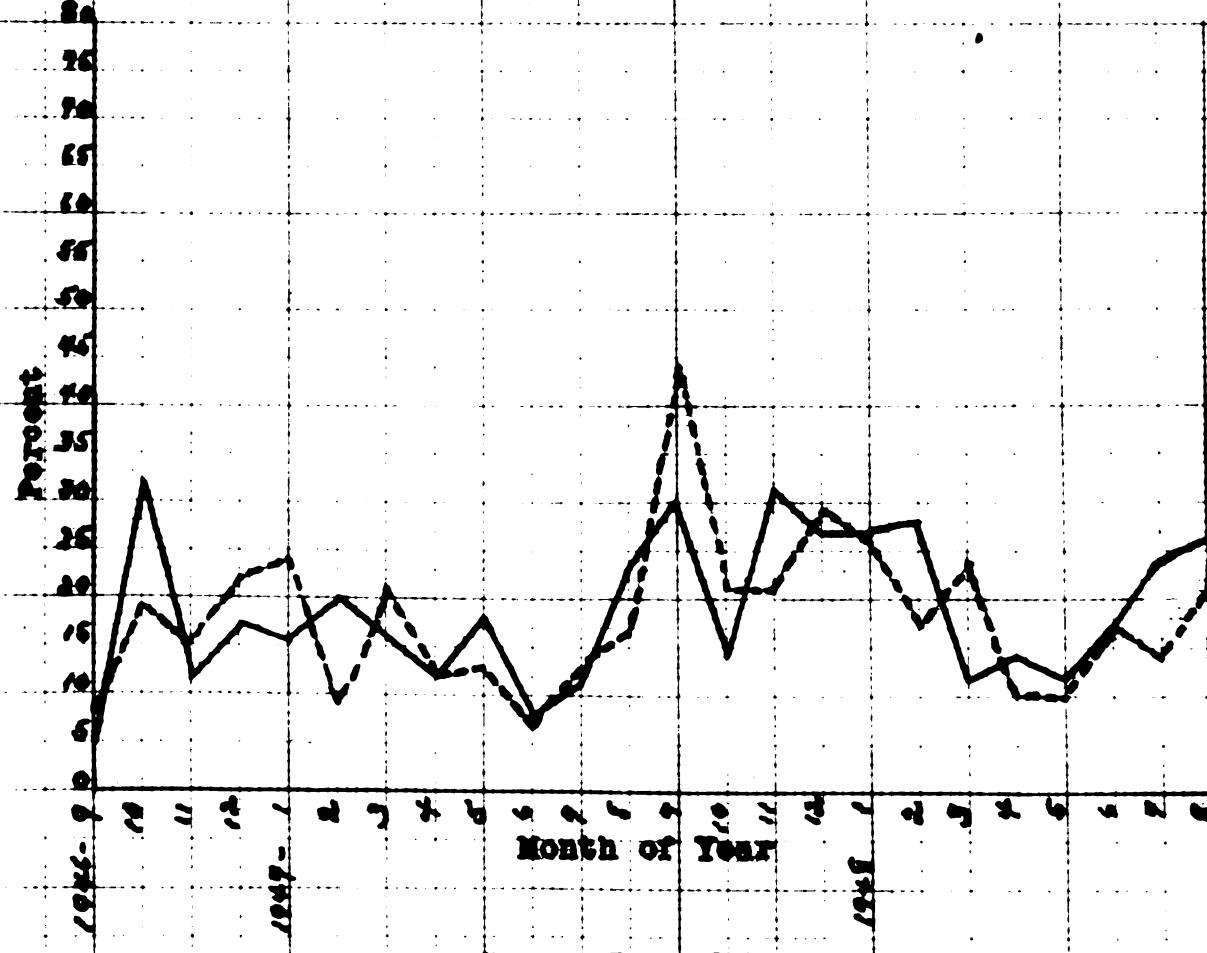

FIGURE II

Monthly

Separation and Accession

Turnover Rates

September 1946 to September 1948

In an

Industrial Cafeteria

– – – – Accession Rates

——— Separation Rates

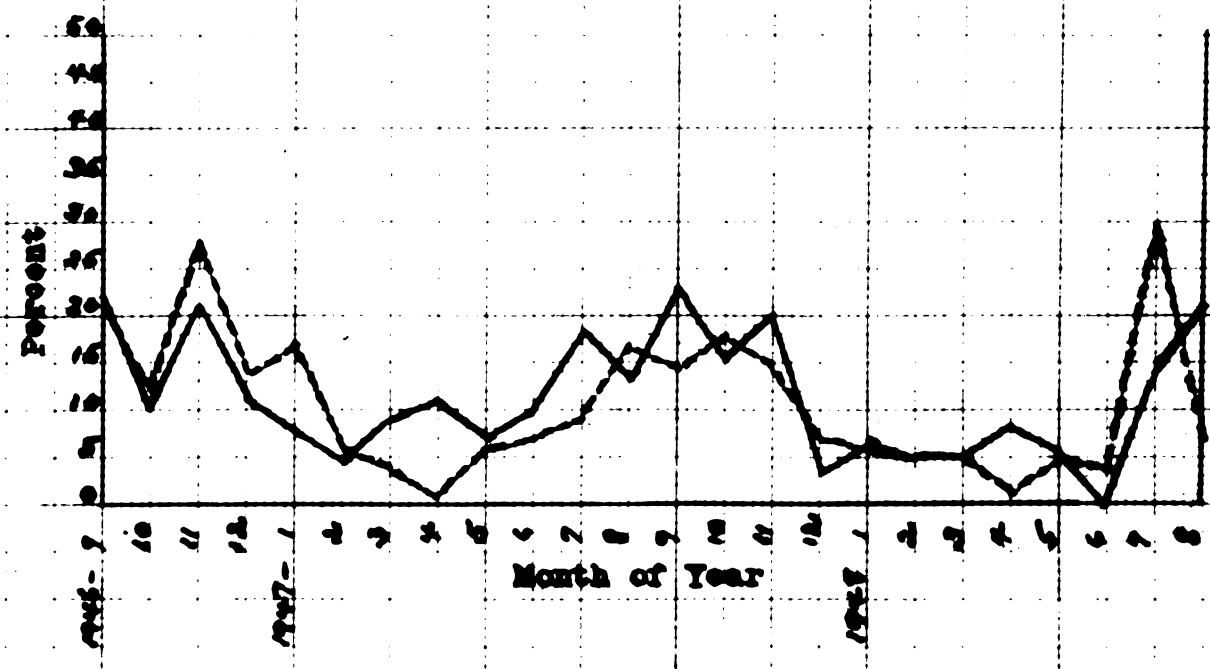

FIGURE III

B. Comparison of the Labor Turnover Rates of the Kinds of Average Work Force of the Three Types of Cafeterias.

Sumner Slichter,[28] as early as 1919, found the four principal points of concentration of turnover to be among:

1. New men.
2. Workers on certain relatively unattractive jobs.
3. Common laborers and unskilled men.
4. Boys, young men, and girls.

In this comparative study information concerning length of service or job assigned to the employee was not known in most of the cases. A comparison is made of turnover among skilled and unskilled workers and part time and full time workers. In two of the cafeterias the unskilled group of workers is an area of concentrated labor turnover; but since information concerning age groups was available in only one of the places that comparison can not be made.*

The labor turnover statistics of the 1913-14 and 1917-18 years showed that in all industries the turnover rate of unskilled laborers was considerably higher than that of skilled workers.[37] Brissenden and Frankel say that it is generally known that common or unskilled labor is less stable than skilled labor.[2] In 1917 the mobility rates of the unskilled were three times as great as those of the skilled.[2] This has continued down to the present time.

1. Comparison of the Turnover Rates for the Part Time and the Full Time Employees. Table IV, page 43.

The regular payroll in the campus cafeteria is made up entirely of full time employees. There are part time employees on the job,

* The table of summary of turnover rates of age groups in the commercial cafeteria is the Table on page 135 of the Appendix.

TABLE III

Kinds of Average Work Forces
for the
Three Types of Cafeterias

Cafeteria	Part Time	Full Time	Skilled	Unskilled	Student	Adult	Child	Total
NUMBER OF EMPLOYEES ON THE AVERAGE WORK FORCE								
Campus	--	84.59	33.9	50.69	--	84.59	--	84.59
Commercial	1.0	54.58	15.1	40.48	1.48	53.15	1.0	55.58
Industrial	1.0	63.4	29.1	35.3	.038	64.3	--	64.4
PERCENT OF THE TOTAL WORK FORCE								
	%	%	%	%	%	%	%	%
Campus	--	100	40	60	--	100	--	100
Commercial	2.0	98	27	73	2.7	95.5	1.7	100
Industrial	1.6	98.4	45	55	0.1	99.8	--	100

TABLE IV

Summary of the 24-month averages of the Monthly Turnover Rates in Each Type of Cafeteria, September 1946 to September 1948

Column No.	2	3	4	5	6	7	8	9	10
Type of Cafeteria	Average Work Force	Quit Rate %	Discharge Rate %	Layoff Rate %	Miscellaneous Rate %	Separation Rate (Sum of Cols 3,4,5,6.)%	Accession Rate %	Total Change Rate (Columns 7 & 8) %	Net Change Rate (Column 8 minus 7) %
Average of 24-month totals for PART TIME EMPLOYEES									
Campus*	--	--	--	--	--	--	--	--	--
Commercial	1	54.17	8.3	--	--	62.5	83.3	145.83	+20.83
Industrial	1	8.33	4.1	--	--	12.5	12.5	25.	--
Average of 24-month totals for FULL TIME EMPLOYEES									
Campus*	84.6	5.5	2.09	.27	.12	7.98	6.84	14.82	-1.14
Commercial	54.6	13.37	4.37	--	.61	18.35	17.21	35.56	-1.14
Industrial	63.4	6.53	4.19	--	.82	11.54	10.95	22.49	- .59

*The average rates given for the Campus Unit studied are for a 21-month period.

but since they did not appear on the regular payroll it is assumed they were listed on the student payroll for which the records were not available. Composition of the work force is shown in Table III, p. 42. The industrial records showed that approximately 1½% of the working force was part time workers. This is only one-half of 1% less than the 2% part time force shown in the commercial study. In no case do the part time turnover rates have significant influence on the total turnover rates.

For both the full time and the part time work force, the commercial cafeteria has the highest turnover rates of separations and of accessions. The full time employees are 98% of the average work force in the commercial unit. (Table III, p. 42). The accession rate is 17.21%, 66.1% less than that of part time employees. The separation rate is 18.35% or 44.15% less than that of part time employees.

The industrial food service plant employed one part time worker; therefore, full time workers composed 98.4% of the work force. The full time workers' separation rate was 11.54% and the part time workers' separation rate was 12.5%. The accession and separation rate of part time workers are each 50% of the total change rate; so there is a 0.0% change indicating that for the period of the study there is no change in the part time working force. There is a -0.5% net change rate for the full time data, which shows a slight decrease in the full time average working force, since the accession and separation rates for the full time workers are very close to 50% each of the total

TABLE V

Summary of the 24-month averages of the Monthly Turnover Rates in Each Type of Cafeteria, September 1946 to September 1948

Column No.	2	3	4	5	6	7	8	9	10
Type of Cafeteria	Average Work Force	Quit Rate %	Discharge Rate %	Layoff Rate %	Miscellaneous Rate %	Separation Rate (Sum of Cols. 3,4,5,6.) %	Accession Rate %	Total Change Rate (Columns 7 & 8) %	Net Change Rate (Column 8 minus 7) %
Average of 24-month totals for SKILLED EMPLOYEES									
Campus*	33.9	1.21	.12	--	--	1.33	.46	1.79	- .87
Commercial	15.1	3.58	.87	--	.81	5.27	4.96	10.23	- .31
Industrial	29.1	9.48	2.81	--	1.84	14.13	12.43	26.56	-1.7
Average of 24 month totals for UNSKILLED EMPLOYEES									
Campus*	50.7	8.58	3.38	.52	.14	12.62	11.6	24.22	-1.01
Commercial	40.5	18.34	5.75	--	.52	24.61	23.73	48.53	- .88
Industrial	35.3	4.25	5.4	--	.3	9.95	9.68	19.63	- .27

*The average rates given for the Campus Unit studied are for a 21-month period.

change rates. There were one and a half full time quits to one full time discharge, but in the part time data there were four quits to one discharge. All of the miscellaneous separations occurred in the series of data on full time help.

2. Comparison of the Turnover Rates for the Skilled and the Unskilled Work Force. Table V, page 45.

The campus food service unit has three skilled employees to five unskilled employees. The commercial has three skilled to eight unskilled, and the industrial, three skilled to four unskilled. The data in the chart below are self-explanatory.

TABLE VI

TOTAL AND NET CHANGE RATES

Skilled Work Force

Cafeteria	Campus	Commercial	Industrial
% of Ave. Work Force	40	27	45
Total Change Rate	1.79	10.23	26.56
Accession Rate	0.46	4.96	12.43
Separation Rate	1.33	5.27	14.13
Net Change Rate	-0.87	-0.31	-1.7

The data in this table are from Tables III and V, pages 42 and 45.

The commercial skilled force makes up 27% of their total payroll. The commercial unit has fewest skilled workers. The industrial unit has the highest proportion of skilled workers although there is only a 5% greater proportion here than in the campus unit.

To summarize, the rates for skilled workers are highest in the industrial food service and lowest in the campus service. The

difference between the industrial accession rate and the commercial rate is approximately twice that of difference between the commercial and campus accession rates.

Although the management of the campus and the industrial units hire about the same proportion of skilled workers; the industrial skilled workers have a 12.4% turnover rate as compared to a 0.4% rate for the campus skilled workers. In each of the three cases there was a decrease in the average work force, the greatest being in the skilled force of the industrial unit.

There is a similarity existing between commercial and industrial skilled rates. This similarity is the distribution of kinds of separations and their relative proportion to total separations. In both, commercial and industrial, the skilled separation rates are 67% quits as shown in Table XIII, page 70.

The industrial unit gave 3% more discharges in proportion to total separations and the commercial unit had 2% more miscellaneous separations in proportion to commercial total separations than the proportion of campus skilled discharges or campus miscellaneous separations to total campus separations. (Figure VIII, page 99.)

TABLE VII

TOTAL AND NET CHANGE RATES OF THE UNSKILLED WORK FORCE

Cafeteria	Campus	Commercial	Industrial
% of Ave. Work Force	60	72	55
Total Change Rate	24.22	48.35	19.68
Accession Rate	11.6	23.73	9.68
Separation Rate	12.6	24.61	9.95
Net Change Rate	-1.01	-0.88	-0.27

These data are also in Table III and V, pages 42 and 45.

The industrial unskilled work force makes up 55% of its total payroll. The industrial unit has the lowest proportion of unskilled workers; the commercial unit the highest.

To summarize, the rates for unskilled workers are highest in the commercial unit, and lowest in the industrial service. The difference between the commercial and campus accession rates is six times greater than that between the campus and industrial accession rates. A major difference may be noted in proportion of industrial quits and industrial discharges to industrial separations. The notable variation in proportion is that the discharges make up 54% of the separations and the quits only 42%. Even by combining the miscellaneous separation rate with the quit rate the proportion of the combined rates would be 45% of the separations.

C. Discussion of Data on Factors Related to Labor Turnover Rates.

Comparison of Data on Patronage of the Three Cafeterias.

Average Daily Patron Count.

The campus average daily patron count varied with large increases and decreases from month to month. The highest average daily patron count of 5945 was in February of 1947, the lowest was 1303, or 1104 not counting catering, in August of 1947. Two lower figures did appear in the record but these occurred during the construction period. The industrial average daily patron count ranges from 4000 in 1946 to 3000 in 1948. There is little fluctuation from month to month, although there is more than is shown in the data because round numbers were used instead of actual totals. The commercial patron count is lower than either of the others. A rather narrow range from 1350 to 2200 appears with only a small degree of variability from month to month. The figures given here are shown in Figure IV, page 52. The two-year average for all the patron data is given in Table VIII, page 51.

Average Daily Patron Check.

The average for the daily patron sales check for the 24-month period is 40¢ in the commercial and 37½¢ in the industrial unit. The 21-month average for the campus unit is 35¢. These figures do not include catering prices. The commercial unit has the highest average patron check, and in the breakdown the lunch counter check averages 25¢, the cafeteria 55¢. No monthly figures were obtainable from the industrial unit, but the manager estimated the canteen daily

check to be 25¢ and the cafeteria 50¢. The average check for the campus unit was calculated from the monthly receipts and daily patron counts. The 21-month average for this breakdown showed 56¢ as an average sale in the cafeteria, and only 14¢ in the grill. These figures on average daily check are shown for the three cafeterias on Figure V, page 53.

Average Daily Patrons Per Employee of the Average Work Force.

The industrial unit serves the largest number of patrons per employee per day and the commercial unit the lowest number. The average daily number of patrons per employee of the industrial unit, for the last four months of 1946, was 57.4. In 1947, the 12-month average was 57.3 and in eight months of 1948 it was 53.1. The campus unit shows patron counts per employee closer to that of the commercial unit than to the industrial unit. The 1946 average for the campus was 38, 37.8 for 1947, but down in 1948 to 32.5. The commercial unit showed 26.9 patrons per employee in 1946, 33.2 in 1947, and 30.1 in 1948. (Table VIII, page 51.)

TABLE VIII

SUMMARY OF DATA ON PATRONS IN THREE TYPES OF CAFETERIAS, SEPTEMBER 1946 to SEPTEMBER 1948

Type of Cafeteria	Average Daily Patron Count 1946	1947	1948	Average Daily Patron Check	Number of Hours of Service	Operation Days Per Week	Hours of Service in Cafeteria Bkfst	Lunch	Dinner	Hours of Service in Grill	Patrons per Minute per line in Cafeteria	Patrons per Employee 1946	1947	1948	Seating Capacity Cafeteria	Canteen	Catering
Averages	Ave. of Four Months	Ave. of Twelve Months	Ave. of Eight Months		Cafeteria												
Campus	3200	3400	2800	$0.35	4½ Hrs.	7	7^{30}-8^{00}	11^{00}-1^{00}	5^{00}-7^{00}	7^{00}am-10^{00}pm	5.2	38	37.8	32.5	175	350	1000
Commercial	1330	1900	1700	.40	3½ Hrs.	6	---	11^{00}-1^{00}	5^{30}-7^{00}	8^{00}am-7^{00}pm	2.85	26.9	33.2	30.1	185	58	125
Industrial	4000	3500	3000	.37½	4¼ Hrs.	6	6^{30}-8^{00}	11^{00}-1^{00}	7^{45}-8^{30}	11^{00}am-1^{00}pm 3^{00}-4^{00} 7^{45}-8^{30}	1.9	57.4	57.3	53.1	660 550 4 | 1210 302	300	---

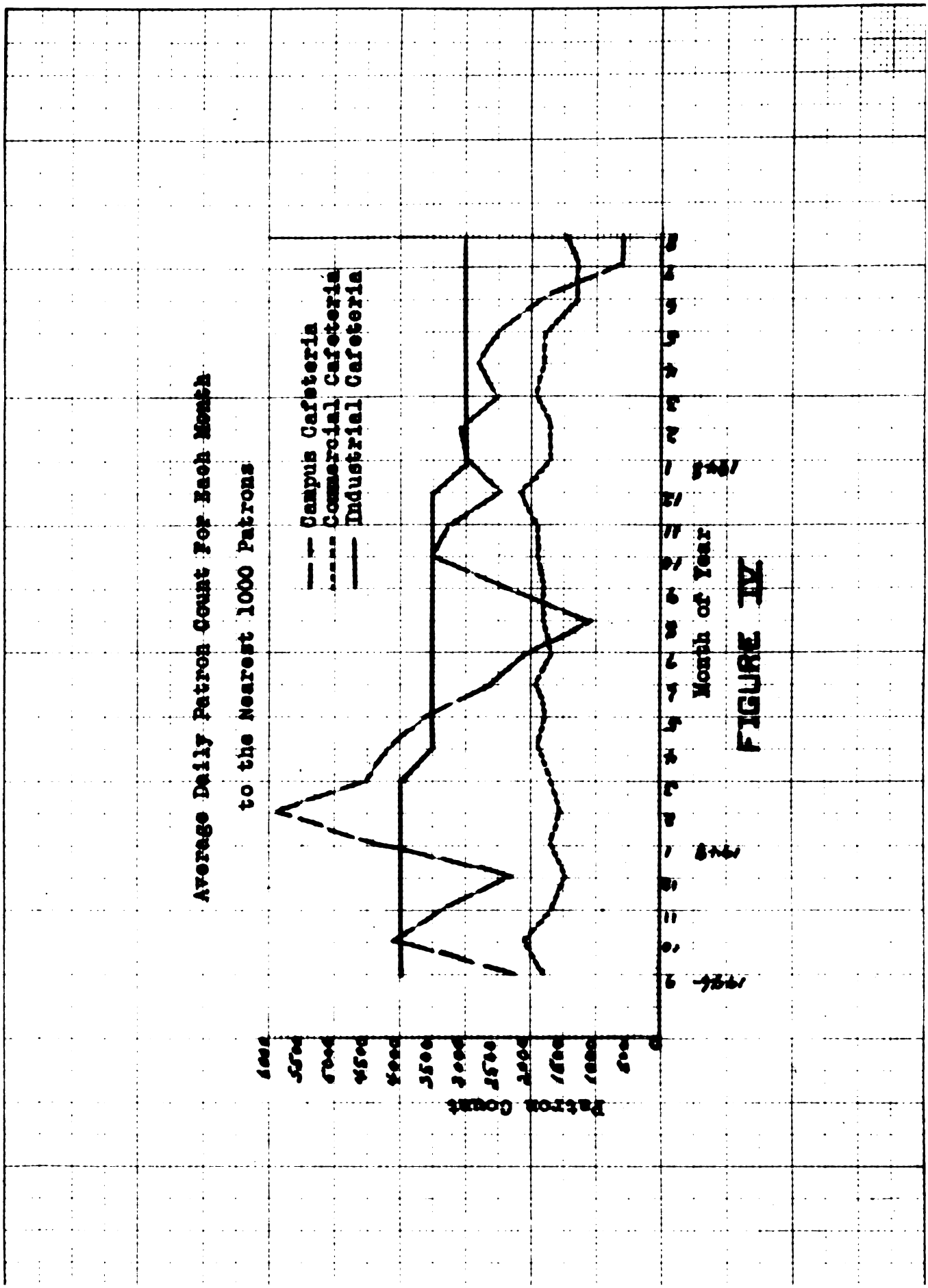
Average Daily Patron Count For Each Month
to the Nearest 1000 Patrons
Campus Cafeteria
Commercial Cafeteria
Industrial Cafeteria
Patron Count
Month of Year

FIGURE IV

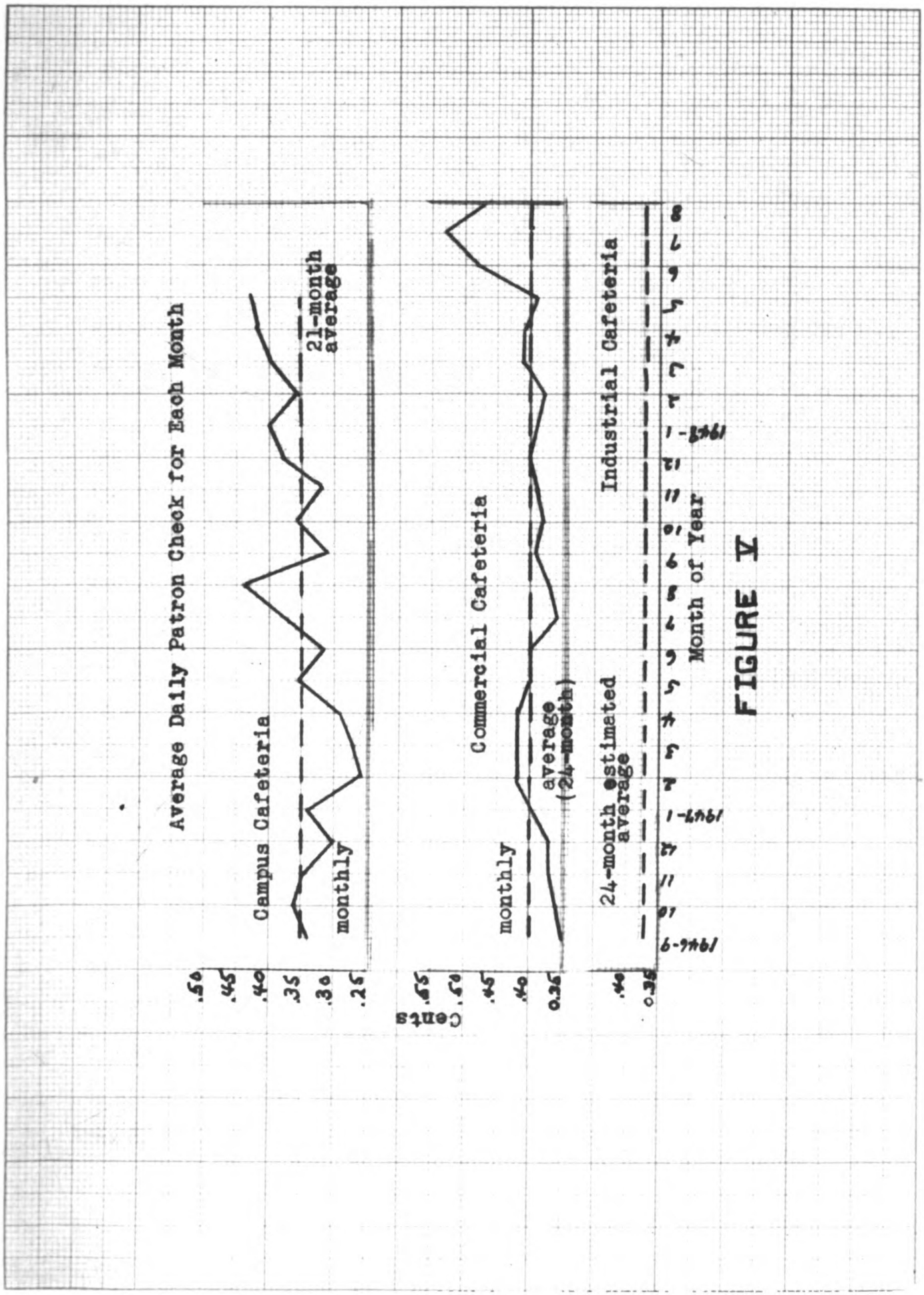
Average Daily Patron Check for Each Month
Campus Cafeteria
monthly
21-month average
Commercial Cafeteria
monthly
average (24-month)
Industrial Cafeteria
24-month estimated average
Cents
Month of Year

FIGURE V

Comparison of Data on Labor in the Three Cafeterias.

Labor Cost Percentages.

The commercial unit has a labor cost percentage which decreased from 56% in the last four months of 1946 to 51.6% in 1947, and to 50.1% for eight months in 1948. The monthly range is from 69.6% in December of 1946 to 46.4% in March 1948. The data appear on Table IX on page 55 and in Figure VI on page 56.

The campus unit showed the next highest averages of labor cost percentages, which also declined in the two-year period from 35.8% to 38.1% and then to 35.4%. The highest month for labor cost was August 1947 with a labor cost of 50.6%. The lowest labor cost, 32.7%, occurred in the two Octobers coming within the period studied. The pay to the regular employees constitutes over three-fourths of the labor cost and the pay of the employees on salary basis is only one to two percent of the labor cost. The meals for all employees are charged to labor cost, therefore, the labor cost percentages given for the campus cafeteria include the 5% which is the part of the total payroll cost allotted for employees' meals. The labor cost percentages given for the campus cafeteria are not the total payroll, because they do not include the student payroll cost which is 7% of the total labor cost percentage. Since the student turnover rates are not available, the labor cost of the student employees is not included.

The industrial unit showed a 35% labor cost in 1946 and a drop to 33% in 1948. The labor cost records were not available for 1947. The variation is slight and there is a small range, from 38.1% in

TABLE IX

SUMMARY OF DATA ON LABOR AND WAGES

EMPLOYEES - MAY 1948

Type of Cafeteria	Range of Hrly Wage	Weighted Average of Hrly Wage Rates	Chef's Renumeration	Hours per Week	Weighted Average Weekly Wage Rates	Man Hours Per Week	Man Hours Per Day	Ave. Work Force	Standard Work Force (May 1948)	Labor Cost % (1948)	Difference in Average and Standard Work Force	
Campus	$.60-$1.74	$ .787	$1.74/hr.	M-44;F-42	$33.05	2814	469	84.6	67+9= 76	35.4	18	18
Commercial	.58- 1.13	.676	1.13/hr.	48	32.45	1248	208	55.6	26+0= 26	50.1	30	30
Industrial	.805-1.87	.839	1.03/hr.	40	33.56	1840	344	64.4	45+5= 50	3.2	19	14

	Over Time Pay	Bonus Pay	Vacation Pay	Sick Leave Pay	Meals allowed	Laundry Uniforms	Automatic Raise	Weighted Average Wage Rates Paid Hourly		
								Skilled Employees	Unskilled Employees	Difference
Campus	Over 40 hrs 1½ x rate	--	2wks	12 days	1.50/day	Yes	--	$.924	$.701	$.223
Commercial	Time and ½ over 44 hrs	--	After 1 yr 1 wk	After 2 yr 2wk	12½¢/hr.	2¢/hr.	1¢to5¢after 6mo. 2¢tol4¢afterlyr.	.788	.626	.162
Industrial	Time and ½ over 40 hrs	5¢ 2nd 8¢ 3rd shift	After 1 yr 1 wk	After 2 yr 2wk	60¢/day	Yes	5¢ after 90 days	.918	.814	.104

SUPERVISORY AND CLERICAL STAFF - MAY 1948

Type of Cafeteria	Range of Wkly Wage	Weighted Average of Paid Wkly Wage Rates	Manager's Renumeration	Hours Scheduled Per Week	Weighted Average Hrly Wage Rate Paid	Man Hours Per Week	Man Hours Per Day	Standard Work Force	
Campus	$39.11-$60.00	$48.87		42	1.15	378	63	9	
Commercial	-----							0	
Industrial	45.00- 60.00	48.12	$100/wk	40	1.20	200	40	5	

	Over Time Pay	Bonus Pay	Vacation Pay	Sick Leave Pay	Meals	Laundry Uniforms	Automatic Raise	Percentage of Labor Cost Paid to Supervisory and Clerical Staff
Campus	---	---	2 wks.	12 da.	all	all	---	16%
Commercial	---	---	---- ?	---	12½¢/hr.	all	---	---
Industrial	---	---	2 wks.	yes	60¢/day	all	---	19%

Standard Work Force is the number of employees actually required to maintain the operation.

Note: Average work force of campus does not include the supervisory and clerical staff. Use employee (hourly) standard work force only.

Note: Average work force of commercial or the standard work force of commercial does not include the supervisory or clerical staff.

Note: Average work force and standard work force of the industrial does include the supervisory and the clerical staff.

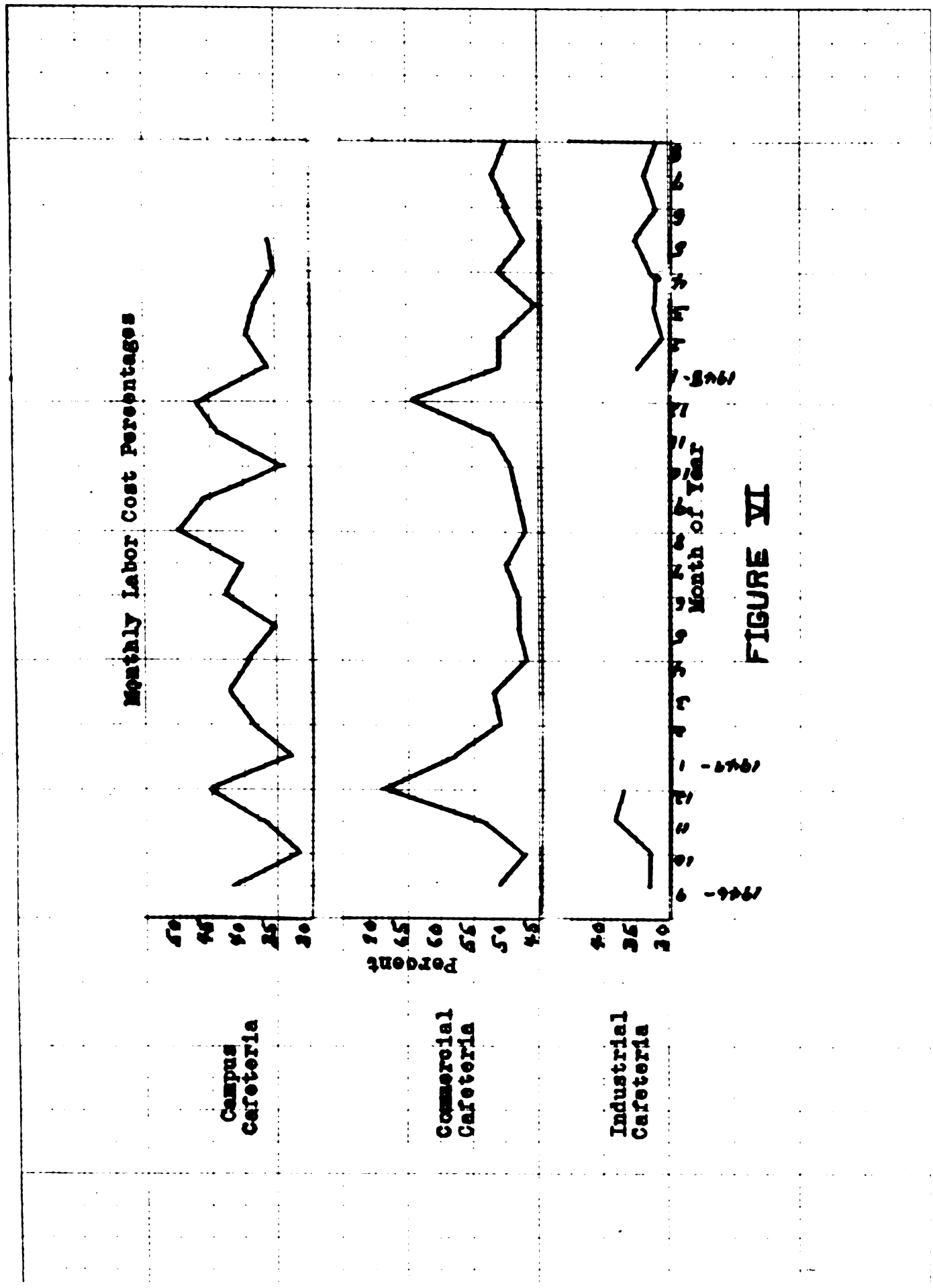
Monthly Labor Cost Percentages
Campus Cafeteria
Commercial Cafeteria
Industrial Cafeteria
Percent
Month of Year

FIGURE VI

November 1946 to 31.6% in February 1948. The records do not show it, but an interview revealed that the supervisory, managerial, and clerical staff represents about 20% of the labor cost. This is in contrast to 1 or 2% labor cost of such staff in the campus unit.

Wage Structures.

Various reasons have been suggested for the fact that wages and wage payment systems are the basis for some of industry's most trouble-some grievances. R. B. Starr,(29) formerly with Training Within Industry and the War Manpower Commission thinks that the chief reason is that the worker regards wages as his personal property, the one tangible thing that he can walk out of the plant with. The workers sometimes fail to recognize the significance of wages and their economic and social meaning. The first line supervision is frequently inadequately informed on the subject of wages, particularly as to the company's wage-payment system. Therefore, when an employee complains about his job the foreman is unable to divert the grievance by a satisfactory explanation. There are factors affecting the wage structure that management must consider when formulating a wage plan. The social and economic factors of the type of business, and also legislation establish boundaries for wage range structure. The cost of living has come to be a basic indicator of wage rates and payment.(29) All these must be considered by management. The worker considers the earning power that his take home pay gives him. The root of all these problems influencing the payment of wages may be considered as human problems.

Labor costs are a principal problem of all institutions. J. W. Stokes,[30] Management Consultant of the Massachusetts Restaurant Association, states that it is a fact that labor costs vary inversely with volume of sales, but to increase the volume of sales is not the way to control labor costs. Labor costs should be brought in line with the current patronage. A big source of expense in the food service business is the maintainence of labor.*

Howard M. Carlson,[5] a partner in Harris, Kerr, Foster Company which is a nationally known accounting firm, presents a simple analysis of payroll costs. High payroll costs are mainly due to inefficient operations, i. e., too many workers who do too little.

The president of the National Restaurant Association, J. Willard Marriott,[17] says that 25% of the food consumed in the nation is consumed in restaurants. Yet many restaurants take in an average of only $17.00 a day for each employee. This figure reaches $30.00 a day in department stores and even higher in other businesses. If volume of sales per employee is a determining factor in wage setting, one may expect wages to be lower in the restaurant business.

George Wenzel,[34] a nationally known cost consultant and analyst of the restaurant industry, in an article in the Michigan Restaurateur, a trade publication, makes the following statements: "Low wages have always been the cause of the high labor turnover in restaurants." "... We can well afford fewer employees at higher wages."

Although dissatisfaction with wages was not given as a major reason for employees voluntarily leaving the job in the three placed

*Stokes, J. W. Adapt Time and Motion Studies to Institutions. Institution Magazine, 22: 2: 1, 70, 72, 75. February 1948.

TABLE X

FREQUENCY* DISTRIBUTION OF HOURLY RATES PAID

Rate per Hour	Number of Employees Receiving the Rate		
	Campus	Commercial	Industrial
$1.80 to $1.89			1
1.70 1.79	1		
1.60 1.69			
1.50 1.59	11		
1.40 1.49			
1.30 1.39	1		
1.20 1.29			
1.10 1.19		1	
1.00 1.09	2		4
.90 .99	2		1
.80 .89	9	2	39
.70 .79	38	3	
.60 .69	12	18	
.50 .59		2	
.40 .49			
TOTAL	67	26	45
WEIGHTED AVERAGE OF HOURLY RATES	78.7¢	67.6¢	83.9¢

* Frequency is based on standard work force in each case.

TABLE XI

FREQUENCY* DISTRIBUTION OF WEEKLY RATES PAID

Rate per Week	Number of Supervisory and Clerical Staff Receiving the rate		
	Campus	Commercial	Industrial
$65 to $69			
60 64	1		1
55 59	1		
50 54	3		1
45 49	1		1
40 44	2		
35 39	1		1
30 34			
TOTAL	9		4
WEIGHTED AVERAGE OF WKLY RATES	$48.81		$48.12

* Frequency is based on standard work force in each case.

surveyed for this study; due to the complexity of the reasons given, it is necessary to compare the wage policy of each conern. The figures are given on Table IX, on page 55.

The industrial unit has the highest weighted average of hourly wage rates; the commercial unit has the lowest. This is shown on Table X, page 59. The weighted average weekly earnings for the supervisory and clerical staff is $48.00 a week for both the industrial and campus units. There was no way of determining this figure for the commercial unit. However, in the industrial unit, the $48.00 weekly wage is in payment for a 40-hour week; while in the campus situation the same weekly wage is paid for a 44-hour week. Assuming that members of the supervisory and clerical staff work the number of hours indicated, the industrial staff members receive $1.20 per hour which is 5¢ more than the average hourly rate paid to the campus cafeteria staff. These averages for the staff pay is the weighted average of the weekly or hourly wage rate. Table XI, page 59.

The production employees of the commercial unit receive the lowest average hourly rates and also the lowest weekly rates, comparing the weighted average rates. The production employees of the industrial unit receive the highest average hourly rate, but for a 40-hour week the average weekly earning is approximately the same, only 50¢ more, than the campus weighted average of weekly rates. It must be noted here that second shift employees of the industrial cafeteria get 5¢ more per hour and the third shift get 10¢ more per hour than hourly rates that the weighted average is based upon. Furthermore, for any hour worked beyond the 40 per week, the wage rate is

one and a half times the basic rate. To include the bonus pay and over-time pay would increase the weighted average hourly rate as well as the weighted average weekly rate.

In one case, the campus unit, the chef is the highest paid of the production employees and is also paid a higher salary than some of the managerial staff. This also occurs in the commercial unit, where the chef has managerial and supervisory responsibilities as well as a production schedule. In the campus unit the chef has only production jobs. The supervisory staff has the supervisory responsibility, although the chef has the highest rate of pay. In the industrial unit, the highest rate of pay is for the meat cutter. This may seem out of line, but the operation is supervised by a staff and production jobs are done by the cooks while the meat cutter works without supervision.

The commercial unit has the highest labor cost percentage, but the lowest weighted average hourly rate and the lowest weighted average weekly rate. The industrial unit pays the highest weighted average hourly rate, but it has the lowest labor cost percentage.

The average rate of pay for skilled employees, defined according to type of job performed and confined to production workers, is higher than the average hourly rate for the unskilled worker in each unit studied. Below is a chart showing these weighted average hourly rates.

Weighted Average Hourly Wage Rates*

	Skilled	Unskilled	Difference
Campus Cafeteria	$ 0.924	$ 0.701	$ 0.22
Commercial Cafeteria	0.788	0.626	0.16
Industrial Cafeteria	0.918	0.814	0.11

*Figures are from Table IX, page 55.

The industrial and the campus skilled workers both receive approximately 90¢ per hour. The commercial skilled workers receive approximately 80¢ per hour.

The industrial unskilled workers receive the highest weighted average hourly rate. The hourly wage for industrial unskilled workers is 10¢ higher than the rate for the campus unskilled and 20¢ higher than for the commercial. Since in each case the unskilled work force is larger than the skilled, these differemnes in rates for unskilled workers have the same relative position as the weighted average hourly rates for the total work force.

There is a differential of wage rates between those paid to the unskilled and to the skilled employees. The campus skilled workers receive approximately 22¢ an hour more than the campus unskilled workers. The commercial skilled workers get only 16¢ per hour more than the unskilled do. The 11¢ difference in weighted average hourly rates for the industrial skilled and unskilled employees develops only a differential of approximately $5.00 per week. The actual payroll figures show that the highest paid skilled worker receives only $9.00 more per week than the lowest paid unskilled worker. The industrial skilled work force constitutes 45% of the total work force. Hence, this large group is paid, on the average, only $5.00 more per week than the other 55 percent.

The two-year average work force is higher than the number of people actually needed to maintain operation. In the commercial study 56 is the average work force, but only 26 are actually needed for

performance. This indicates that 30 more names appeared on the payroll than were actually needed. The industrial unit shows 14 extra names and the campus study shows 18 names over and above the number needed to maintain the operation. The weighted averages of wage rates are based on the standard work force instead of the average work force.

D. Analytical Correlation of Data on Factors Related to Labor Turnover Rates.

Labor turnover, according to Slichter,[28] is a product of many variables. Among the variables, which he lists and which have already been mentioned on page 3, are demand for labor, employment opportunities, living conditions, steadiness of work, nature of work and work conditions, character of employees, character of management, and season of the year. Slichter also points out that labor turnover will vary according to industry, locality, and individual firm.

This study is limited to one industry, the food service industry. The variable factors are further limited by concentration of the study of labor turnover in the cafeteria type food service only. Locality is a less important variable, since each of the three establishments are within the same metropolitan area. More specific location of the plant has some effect but that is not included in the analysis.

Individual firm appears as a major factor in the variability of labor turnover for the cases in this study. Each cafeteria is operated by a different firm. An additional variable enters here. The cafeterias are not complete businesses within themselves for each is a part of a different major organization. One unit is a food service within a state educational institution; another, operated by an outside catering concern, provides food service for an automobile manufacturing plant; the third is one of the sales departments in a retail grocery and bakery in which all departments are operated by

the owners of the five-chain company. Interpretation and analysis are based upon this variable factor. The classification of the cafeterias is based on the business or industry in which the food service operates. Therfore, the three classes of cafeterias are campus, commercial, and industrial.

These cafeterias can not be compared with anything but each other since there are no government statistics for the restaurant industry. It should be understood that these cafeterias may or may not be representative of the industry as a whole. However, Woytinsky* says that investigations of turnover in individual firms have the advantage of small sample studies because they contain details which usually are not included in a large scale program. The sample studies used here are small, monthly turnover rates being based on less than 100 as the average number of employees on the work force. No statistical comparisons are made for the data of each cafeteria. The samples were of too small a number and the differences in the data are so great that calculation of significant differences are not needed.** Furthermore there was a difference in the way the obtainable data had been recorded in each unit and so the conditions of the collection of data varied. Another way that the conditions varied was that different people had recorded the data from month to month in the three units. Statistical correlations would be of no significance.**

* Woytinsky, W. S., Three Aspects of Labor Dynamics. Social Science Research Council, Washington, D. C. 1942. p. 14.

** These are the opinions of Dr. Katz, Assistant Professor of Mathematics and of Dr. Baten, Professor of Mathematics and Research Professor of Statistics in the Michigan Agricultural Experiment Station.

From the summary of data found in Tables I, IV, V, VIII, and IX on pages 34,43,45, 51, 55,the following comparisons are made. The labor cost percentage is an identification figure for the general productive efficiency of labor. One of the most variable factors affecting labor cost is the turnover. Excessive labor turnover would increase the labor cost of an individual firm, if the volume of receipts remains constant.

There is evidence of this relationship in each of the three situations. The commercial turnover rate is 8% to 9% higher than the other turnover rates. The labor cost is 15% to 17% higher than the two lower labor cost percentages. However, the campus unit which has the lowest turnover rate, does not have the lowest labor cost percentage. The industrial labor cost is approximately 2% less than that of the campus, but its turnover rate is 4% higher. This is explained in part by the efficiency of the man hours of labor, which is not a part of this survey. Further explanation shows that there are two possibilities; either the receipts can be higher or the wages can be lower to make the labor cost percentage higher.

Average daily patron check is a figure used to indicate the volume of sales, for this figure multiplied by the average daily patron count gives average daily receipts. The industrial figure for average daily patron check is 37½¢. For the campus it is 35¢. These are averages for the 24-month period which does not include the catering checks.

In addition to the higher patron check, the industrial cafeteria had the highest patron count. These two figures give a lower labor cost percentage if the labor cost is constant.

The industrial cafeteria has a smaller work force than the campus cafeteria. The number on the work force times the wage rate paid each gives the payroll cost of labor. The campus cafeteria hires 85 employees on the average: the industrial cafeteria has 64 on its payroll. If the weighted average wage rates were the same for both food service places the payroll cost would be higher in the campus unit. Actually, however, the weighted average of the hourly wage rates paid to employees in the industrial unit is approximately 5¢ higher than the weighted average of the hourly wage rates paid in the campus cafeteria.* Of both of the two possibilities mentioned on page 66 the industrial cafeteria is an example. That is to say, the receipts are higher than those of the campus cafeteria and the wages are lower. The industrial cafeteria, therefore, has higher average daily receipts and lower labor cost.

The direct relationship between labor cost percentage and rate of turnover does not hold true here. The element of labor efficiency is encountered. There are many environmental factors which affect the efficiency of labor performance: physical layout, condition and type of equipment, kind of flooring, light, and ventilation. Aside from these, however, the efficiency of the employees in the industrial plant is higher than that in either the campus or the commercial plants. The efficiency of labor can be expressed as daily patrons per employee. Each employee in the industrial unit serves as many as 57 patrons every

* Only hourly wages are discussed here, because the weighted averages of the weekly wage rates are the same for the campus and the industrial units.

day. The campus cafeteria employee serves up to 38 patrons each day, and each commercial cafeteria worker serves the least, as many as 33 patrons per day. From this, it may be concluded that the cafeteria employees in the industrial plant with the available lay-out of equipment have higher labor efficiency than the employees of the other cafeterias.

Perhaps the industrial cafeteria employees are directed beyond the point of efficiency, that point corresponding to the point of optimum turnover. If productivity over and above the optimum is received from labor, it may be expected that the employees will become dissatisfied with the compensation for the volume of work done. This could account for the higher labor turnover of the industrial unit as compared to that of the campus cafeteria.

E. Discussion of Reasons Given for Quits

The need for definite and detailed information on the causes of labor turnover is obvious. It may be assumed that management will know why a worker is discharged or why there is a lay-off of workers, since it is management which initiates these two kinds of terminations. Causes for terminations which come under miscellaneous quits are from external forces: they are neither initiated by the employee or by management.

Employees voluntarily leave a job and they may know the reasons. However, in some cases their expression of this reason is inadequate and many times does not give the basic or real reason for the quit. It is important, therefore, to analyze carefully the reasons that are given in order to determine the actual cause of the voluntary quits if possible. Quits account for the largest number of separations as shown in the table below and as illustrated in Figure VIII, page 99.

TABLE XII

KINDS OF SEPARATIONS RATES*

Monthly Averages	Campus	Commercial	Industrial
Quit Rate	5.50%	14.14%	6.57%
Discharge Rate	2.09%	4.43%	4.2 %
Lay-Off Rate	0.27%	--	--
Miscellaneous Rate	0.12%	0.6 %	0.81%
Total Separation Rate	7.98%	19.17%	11.58%

*These figures are taken from Table I, page 34.

TABLE XIII

Distribution of Kinds of Separations*

	Campus			Commercial			Industrial		
	Total Number	% of Total Separations	Ratio	Total Number	% of Total Separations	Ratio	Total Number	% of Total Separations	Ratio
Quits	100	68.00%	5	186	73.00%	6	99	55.00%	3
Discharges	40	27.	2	61	24.	2	67	37.	2
Lay Offs	5	3.4	.2	--	--	--	--	--	--
Miscellaneous Separations	2	1.36	.1	8	3.14	.8	13	7.	.3
Total Separations	147	100.0%	7.3	255	100.0%	8.8	179	100%	5.3

* The percentages in this table are not rates of turnover. They are the percentage of quits, etc. in proportion to the total number of separations. The number of quits, etc. are taken from pages 118, 123, and 129.

From Tables I and XII, the difference in the campus and industrial separation rates is only 3½%. The commercial is higher than the industrial, and the industrial separation rate is higher than the campus. In each case, the quit rate makes up the largest part of the total separation rate and discharge rates make up the second largest group as shown in Table XIII page 70.

The campus and industrial quit and separation are the lower rates and are close together, and in the case of discharge rates the two higher ones, commercial and industrial, are as close as 2%. We see that, like discharges, the commercial and industrial miscellaneous rates are the higher ones and also show the least difference. The proportion of miscellaneous rates to total separations is low, being highest in the industrial unit.

Lay-offs do not appear in the industrial or commercial data. The combined proportions of miscellaneous rate and lay-off rate would still make the proportion in the campus separations less than the proportion of industrial miscellaneous rate to industrial separation rate. The proportion of industrial quit rate is 13% less than the campus quit rate proportion. Campus quit rates have only 5% less effect on separations than do the commercial quit rates. This gives the industrial 6% greater proportion combined than it does the campus rates combined. However, commercial rates combined become a 7% instead of a 5% greater proportion of separations than the campus combination does. This shows that the combination of miscellaneous and quit rates does not alter the relative proportion rank among the three studies.

Brissenden and Frankel[2] say that two establishments in the same locality, of about equal size, employing about the same type of worker and engaged in making the same kind of product, differ widely in the extent of labor turnover during identical periods of time. The difference usually indicates that the company with the more nearly normal labor turnover is pursuing a more advanced labor policy or that the labor conditions (hours, wages, etc.) are better.

In order to devise methods of stabilizing the work force and eliminating unnecessary labor change, it is quite necessary to know the factors responsible for the labor shiftings. The preceding analysis of the make-up of the separation rate shows voluntary quits to be the major factor. A quit is a case where the employee seeks termination of employment for his own reasons. The practice of exit interviews in such cases could reveal the employee's reasons, but to the difficulties of learning the employee's reasons is added the difficulty of analyzing and classifying the results. It is not always easy to reduce the reason expressed to a single classifiable category. For example, Brissenden and Frankel[2] have said that it is safe to assume that the wage motive in one form or another enters into most specified reasons for leaving a job.

In view of the importance of causes of labor turnover as indicated by reasons given for quits, an attempt is made to classify those reasons within the limits of the terminology used in the personnel records of the three cafeterias. Reasons given by employees

vary widely. The same basic cause may be present in five quit cases; and yet five different reasons may be recorded. Employees sometimes do not like to tell the real reason for leaving a job. Some employees are unable to express themselves adequately, in which cases the interviewer must interpret the reasons and here another element of chance comes in. Furthermore, for purposes of simplified records, categorical reasons are formulated and recording of reasons is likely to follow a pattern.

At the close of the first world war, Slichter[28] listed the four most important features of a job that appealed to the average worker. These were wages, steady employment, physical and nervous demands on the worker, and hours of work. It might be expected that employees would voluntarily quit if the job failed to offer any one of these.

Reasons or causes for quits may be either avoidable or unavoidable. An avoidable cause or reason would be one which can be eliminated by management. The unavoidable cause, management can not control.[14]

The reasons given in the cafeterias used in this study fall into four categories. Two are avoidable and two are unavoidable. The unavoidable quits are those for such reasons as personal reactions and family conditions. These are unavoidable since management can not prevent their occurrence except through the processes of hiring and selection, but once the worker is hired management can not prevent illness in the family, or the demands by the family which cause a worker to react to news of a lay-off by quitting. Reasons for quits

included in these two categories are unavoidable only when they are statements of the actual situation and are the fundamental, basic, or primary reason and not when they are secondary to a basic and avoidable reason.

Work conditions and managerial policies are the categories which are considered as avoidable, because the correction of factors which cause quits for these reasons can be made by management. In theory, management can avoid dissatisfaction with wages, hours, staff practices and so on, but complete satisfaction of all workers can not be attained. In such cases as quits because of employee absenteeism or conduct, management can make use of incentives for reducing the use of disciplinary action.

The reasons recorded for quits were such that other job and family conditions may mean almost anything, therefore the breakdown into avoidable or unavoidable quits can only be approximately correct.

Explanation of Terms to be Used in the Analysis of Reasons for Quits.

Work conditions is that class of reasons for quits which includes wages, hours of work, dislike for the job, and job elsewhere. Managerial policies is that class of reasons for quits which includes policy concerning no work available, staff practices, absenteeism, and disciplinary action for employee conduct. All quit cases in this category of reasons are those which would have eventually resulted in discharges. Personal reactions is that class of reasons for quits which is peculiar to a single person or individual without an effect on other workers. Expression of reasons within this class are primarily

the personal reaction of the employee to the directive from management. This class includes reasons for quits which (1) were the result when the employee was told of a lay-off, or when he was told to apply for another job; and (2) were individual characteristics or desires such as incapability and the employee's wish for temporary employment only. Family conditions is that class of reasons for quits which includes staying at home, illness in the family, moving from the work area, and returning to school. No reason is that class of reasons for quits which is a grouping of quits made either without a reason expressed by the employee or without a record being made.

Dislike for the job is the reason which covers all those reasons for quitting which mentioned dissatisfaction with a specific phase of the work or characteristic of the job. Wages and hours are two specific features of working conditions which were recorded and no other specific ones were listed in any of the three places surveyed. Job elsewhere is a broad term inclusive of better job and another job, not indicated but, implied as an improvement over the job which the employee is leaving. Union activities refers to dissatisfaction or disagreement with some factor upon which the union and management had agreed.

No work available is a term which describes the quit case of a group of employees who were told that, and who quit in advance of a discharge action. Staff practices is a term descriptive of quit cases in which there was disagreement between the employee and some member of the managerial or supervisory staff. These cases had been

handled as grievance procedures, the result of which was unsatisfactory to the employee. Absenteeism and conduct are terms which were causes, initiated by the employee himself, of disciplinary action against the employee's actions. Dissatisfaction with the managerial policy concerning these two forms of misconduct is the reason given for the quit.

Told of lay-off and told to apply for job elsewhere are phrases which express the gist of a managerial directive to specific individuals who chose to quit, giving the directive as the reason. Temporary employment represents cases of certain employees who had asked for short-time employment. Management hired these employees with the knowledge that they would voluntarily leave when they had to return to their farm work. Incapability describes the individual employee who quit with the admission of his incapability to perform the work.

Staying home is a reason which includes those young women who are getting married and those employees who were needed at home. Illness, as a reason for a quit, means illness not only of the employee himself but of any member of the family. Moving from the work area includes employees who went South for the winter months as well as those who moved from the area permanently. Returning to school may be the action of the employee or of any member of his family which would be cause for his leaving the job.

TABLE XIV

DISTRIBUTION OF REASONS FOR QUITS IN THE CAMPUS CAFETERIA

REASON	* M	F	% M	% F	PT	FT	% PT	% FT	SK	UN	% SK	% UN	Total Reasons	% of Total Quits
			4.42	43.36				47.78			1.77	46.02		
WORK CONDITIONS	5	49			--	54			2	52			54	47.78
wages		1		.88		1		.88		1		.88	1	.88
hours														
dislike for job	1	23	.88	20.35		24		21.23	1	23	.88	20.35	24	21.23
job elsewhere	4	25	3.54	22.12		29		25.66	1	28	.88	24.78	29	25.66
union activities														
MANAGERIAL POLICY	--	1		.88	--	1		.88	--	1		.88	1	.88
no work available														
staff practices														
absenteeism														
conduct		1		.88		1		.88		1		.88	1	.88
PERSONAL REACTION	--	8		7.08	--	8		7.08	--	8		7.08	8	7.08
when told of layoff		2		1.77		2		1.77		2		1.77	2	1.77
when told to apply for job														
temporary employment		5		4.42		5		4.42		5		4.42	5	4.42
incapability		1		.88		1		.88		1		.88	1	.88
FAMILY	--	19		16.81	--	19		16.81	3	16	2.65	14.16	19	16.81
staying home													5	4.42
illness													9	7.76
moving from work area													4	3.54
returning to school													1	.88
NO REASONS KNOWN OR GIVEN	5	26	4.42	23.00	--	31		27.43	4	27	3.54	23.89	31	27.43
TOTAL NUMBER	10	103			--	113			9	104			113	
% OF TOTAL QUITS			8.85	91.12				100.00			7.96	92.04		100.00
% OF AVERAGE WORK FORCE					--	100			40	60				
% GIVING REASON	96	77				73			97	76			92.57	

*Explanation of Code: M - male employees PT - part time SK - skilled
F - female FT - full time UN - unskilled

Analysis for Reasons for Quits in the Campus Cafeteria.

Reason Given by All Employees.

There were 113 quits recorded in the campus operation. Quits were 53.81% of the total separations. This information is given in Table XIV on page 77, and in graphs in Figure VII on page 98.

Reasons for quitting the job in the campus unit are distributed among the five categories as follows.

Class	Number of Quits	% to Total Quits
Work Conditions	54	47.78%
No Reason	31	27.43
Family Conditions	19	16.81
Personal Reactions	8	7.08
Managerial Policies	1	.88
Total	113	100.00%

For nearly 1/3 of the quits, there was no reason recorded. This implies that no reason was given by the employee; but, since there were numerous personnel cards with nothing recorded for reason given, this one-third represents two groups. The employees in this group include those who did not give a reason or who did not have the privilege of expressing their reason, and those for which no record was made as to why the employee quit.

Among the other categories, nearly 1/2 of the quits, employees made because of work conditions. Following is the percentage of reasons within the work condition category.

Wages	.88%
Hours	--
Dislike of Job	21.23%
Job Elsewhere	25.66%
Union Activities	--

From these figures it may be concluded that one-fourth of the total quits occurred because the worker had found another job. However, if it had been possible a complete analysis of exit interviews may have shown various reasons for having sought another job. Actually the underlying cause for seeking other employment would have shown truer reason for quitting.

Some workers left the place because they did not like the work. Just what phase of the work they did not like is not known. If one particular condition or factor of work was recorded or known, it occurs within its own class. The reason, dislike of job, is a catch-all for reasons indicating general but not specific dissatisfaction. This reason was given by one-fifth of the employees who quit the campus cafeteria.

Dissatisfaction with wages was given as a reason by less than 1% of those who quit. It can be assumed that there were others who quit because of factors of pay. Wage reasons could have fallen into either of the two largest groups. In fact, these two large groups of reasons may, easily enough, have been in either one or the other reasons within the work conditions category.

Less than 1% of reasons for quits were reactions to managerial policies. In this case the employee quit because of the disciplinary action due to his own conduct. Perhaps, if the employee had not quit, the disciplinary action would have culminated a discharge.

Approximately one-fourth of the reasons recorded for quits were those peculiar to the individual. Four percent of those who quit, accepted the job temporarily and of their own accord. Less than 1% quit because of their own admitted incapability for the work. Nearly 2% quit when they were given advance notice of a lay-off. This could be analyzed as fear of not being given the same job back after the lay-off, or as necessity for wages during the lay-off period. If such reasons had been given they would have been in other categories and no doubt would have eliminated this group.

The last of the four categories for reasons is 17% of the total quits. This group of reasons includes those factors of family life which are paramount and which lessen the relative importance of having a job.

Some people quit to stay at home. Such a reason could mean that household and family responsibilities demanded their attention. However, this reason may have been given as a substitute for the real reason. They may have stayed at home because of work conditions, managerial policies, or personal reactions. Illness was the next largest group of reasons within the family class, and moving from the work area was given more frequently than returning to school.

It may be concluded that most of the employees quit because they had another job. The following is the order in which reasons, for quitting the food service job in the campus cafeteria, occur. The reason given most frequently is listed first.

1. Job Elsewhere.
2. Dislike of job.
3. Illness in the family.

4. Staying home and temporary employment.
5. Moving from the work area.
6. Told of lay-off.
7. Returning to school, personal incapability, and disciplinary action of conduct.

These reasons were given for 72.57% of the quits: for the other 27.43%, either no reason was given or no record was made.

Reasons Given by Men and Women

Among the 113 employees who quit in the campus unit, 8.85% were men and 91.12% were women.

The men gave job elsewhere as 3½% of the total reasons for quitting. The women were responsible for 22% of reasons classed as job elsewhere and 20% of those classed as dislike for job. About 1% of the reasons given were given by men who said they disliked the job. All of the reasons given by men were related to conditions of work; but wages or hours did not occur as reasons.

Most of the women quit because of work conditions, wages being the reason for just one. All of the reasons in the categories of managerial policies, personal, and family were given by women. Half of the men gave no reasons for quitting and nearly one-fourth of the quits were women who gave no reason.

Reasons Given by Full Time and Part Time Employees.

Since all of the work force of the campus unit is full time, working more than six hours each day of the work week, the analysis of reasons given by all of the workers who quit applies to full time employees.

Reasons Given by Skilled and Unskilled Employees.

Nine skilled and one hundred and four unskilled employees quit during the two-year period studied. These figures, from Table XIV on page 77, show quits being 8% skilled and 92% unskilled.

The skilled employees quit for two reasons, dislike for job and job elsewhere. These two reasons grouped as work conditions make up less than 2% of the total quits. Three and a half percent of the total quits by skilled employees appeared with no reason recorded. The reasons for unskilled workers quitting appear in the same order as those for all workers. Work condition is the largest group of reasons, and the next largest group is the no reason category.

Since information on the age of employees who terminated employment was not available in the campus study, the analysis of reasons for quits may be summarized. Approximately the same proportion of women quit as did unskilled employees. Ten times as many women quit as did men. Eleven and a half times as many unskilled workers quit as did skilled workers. Of course, this is affected by the composition of the average work force which is mostly unskilled and mostly women and full time adult workers.

Student groups are employed, but the payroll records were not available for making a study of student labor. The student payroll is approximately 6% of the total labor cost.

TABLE XV

DISTRIBUTION OF REASONS FOR QUITS IN THE COMMERCIAL CAFETERIA

REASON	* M	F	% M	% F	PT	FT	% PT	% FT	SK	UN	% SK	% UN	15	%	20	%	30	%	40	%	50	%	Total Reasons	% of Total Quits
WORK CONDITIONS	12	52	6.45	27.95	3	61	1.61	32.79	4	60	2.15	32.26	30	16.1	22	11.8	6	3.2	3	1.6	3	1.6	64	34.41
wages	1	6	.54	3.23		7		3.76		7		3.76	3	1.63	3	1.63	1	.54					7	3.76
hours		3		1.63	1	2	.54	1.07		3		1.63	3	1.63									3	1.63
dislike for job	1	14	.54	7.53		15		8.06		15		8.06	5	2.60	7	3.76	2	1.07			1	.54	15	8.06
job elsewhere	10	27	5.37	14.51	2	35	1.07	18.82	4	33	2.15	17.74	19	10.22	10	5.37	3	1.63	3	1.63	2	1.07	37	19.89
union activities		2		1.07		2		1.07		2		1.07	-		2	1.07							2	1.07
MANAGERIAL POLICIES	2	4	1.07	2.15	--	6	--	3.23	2	4	1.07	2.15	3	1.6	1	.5	2	1.1					6	3.23
no work available																								
staff practices	1	3	.54	1.61		4		2.15	2	2	1.07	1.07	1	.54	1	.54	2	1.07					4	2.15
absenteeism	1	1	.54	.54		2		1.07		2		1.07	2	1.07									2	1.07
conduct																								
PERSONAL REACTIONS	--	--			--	--			--	--			--										--	--
when told of layoff																								
when told to apply for job																								
temporary employment																								
incapability																								
FAMILY CONDITIONS	5	64	2.69	34.41	5	64	2.69	34.41	4	65	2.15	34.95	30	16.1	22	11.8	13	6.9	2	1.1	2	1.1	69	37.10
staying home																							29	15.58
illness																							14	7.53
moving from work area																							20	10.75
returning to school																							6	3.23
NO REASONS KNOWN OR GIVEN	14	33	7.53	17.74	5	42	2.69	22.58	3	44	1.61	23.65	21	11.3	16	8.6	7	3.9	--	--	3	1.6	47	25.27
TOTAL NUMBER REASONS	33	153			13	173			13	173			84		61		28		5		8		186	
% OF TOTAL QUITS			17.74	82.27			6.99	93.00			6.99	93.00		45.1		32.8		15.05		2.7		4.3		100.00
% OF AVERAGE WORK FORCE					2	98			27	73														
% GIVING REASON	92.5	82			93	77			98	78			33.8		24.2		11.15		2.7		27		74.73	

* Explanation of Code: M - male employees F - female; PT - part time FT - full time; SK - skilled UN - unskilled; 15 - 15-20 years of age 20 - 20-30 years of age 30 - 30-40 years of age 40 - 40-50 years of age. 50 - 50 and over

Analysis of Reasons for Quits in the Commercial Cafeteria.

Reasons Given by All Employees.

There were 186 quits recorded in the commercial unit. Quits were 72.94% of the total separations as shown in Table XV, and Figure VII on pages 83 and 98. Reasons for quitting the job in the commercial unit are distributed among the five classes as follows.

Class	Number of Quits	% to Total Quits
Family	69	37.1%
Work Conditions	64	34.41
No Reason	47	25.27
Managerial Policy	6	3.23
Personal Reactions	--	--
Total	186	100.00%

Either no reason was given or none was recorded for one-fourth of the quits. Three-fourths of the quits fall into three of the other four categories. Dissatisfaction with work conditions was given as the reason for leaving the job in 34% of the cases. This 34% includes the following reasons.

Wages	3.76%
Hours	1.63%
Dislike for Job	8.06%
Job Elsewhere	19.89%
Union Activities	1.07%

The high frequency of the reason termed job elsewhere does not indicate what factors prompted the worker to seek other employment. This frequency would probably not have been so high if more specific reasons

had been given. Records of more specific reasons would no doubt have raised the frequency of cases occurring in the other kinds within the same category. Dislike for the job is the second most important reason given.

In the category of managerial policies, 1% of the reasons were absenteeism and 2% were disagreement with practices of certain staff members. Although the percentages here are small; it is well to note, that in the case of absenteeism given as a reason for leaving the job, the employees admitted that they could prevent their absenteeism. The company policy in handling absentees prompted the workers to react to the announcement of disciplinary action by voluntarily quitting.* There were two cases of disagreement with the supervisor. One of these was the situation where the chef disagreed with top management and so merely left the place of work.

From the records made available for this study and from interviews with various store executives, there was no evidence of personal reasons being given for voluntarily leaving the job.

The largest group of reasons given were in the family class and are distributed within the class as follows.

Staying Home	15.58%
Illness in the Family	7.53%
Moving from Work Area	10.75%
Returning to School	3.23%

*In seeking more information about these cases, the store executives were interviewed. The interviewer presented the question of the likelihood of a discharge rather than a quit having occurred. In one case discharge had been planned but the employee quit before the discharge was effected. In the other case the intention was to keep the employee but he decided to quit.

Most of the reasons in this group were due to duties of the household or family; or due to the lesser importance or value of the job in relation to the family. Those 'quit' workers, who moved away from the area, included some who travelled to the South in the winter months. Illness in the family and returning to school were given as frequently as moving away from the work area. Some of those reasons occurring in the returning to school group were cases of children returning to school in the fall and not the employee himself.

To draw a conclusion about the occurrence of quits in the commercial unit and the reasons given therefore, it may be stated that most of the people quit their jobs at the commercial cafeteria because they had other jobs. Another job meant a better job, no doubt, so the basic reason for seeking the other job is not known. Approximately one-sixth of them quit because they had to stay at home. Both of these reasons have high frequencies because each is a sort of a cover-up phrase for many underlying causes for labor turnover. An employee may have said she had to quit because she must stay at home and take care of her children. The case may have been that if she had not found some factor of the job unsatisfactory, she would have arranged for someone else to care for the children. The reasons given for quitting are listed below in the order of their frequency.

1. Other Job.
2. Staying at Home.
3. Moving from the Work Area.
4. Dislike for the Job.
5. Illness in the Family.
6. Wages.
7. Returning to School.

8. Disagreement with Staff Practices.
9. Hours of Work.
10. Union Activity and Absenteeism.

These reasons were given for 74.73% of the quits; for the other 25.27% either no reason was given or no record was made of the reason.

Reasons Given by Men and Women.

Of the 186 quits during the two-year period studied for the commercial cafeteria, there were 153 women and 33 men who quit i.e., 82% of the quits were made by women and 18% by the men.

The records showed 7½% of the men quit with no reason given. Six percent of the quits by men were for reasons concerning work conditions. Five percent of the quits left because of another job. One man out of the 14 who quit did so because of unsatisfactory wages. Approximately 3% of the men gave quit reasons relating to their families. Of the total quits, 18% were made by women who gave no reason. Women listed family in 34% of the cases and work conditions in 30%. The largest category of reasons given by men was work conditions, by women it was family conditions.

Reasons Given by Part Time and Full Time Employees.

The full time employees are 98% of the commercial average work force. Of those who quit 93% were full time employees and 7% were part time. Among the full time workers, 22½% of the quits were made without reason. Family was given as reason for 34% of the quits and work conditions for 33%. Job elsewhere was reported as the largest single reason, being 19% of the quits. No part time workers quit for

reasons concerning managerial policies. Reasons given by full time employees and by women employees rank the same in importance as those given by all employees.

Reasons Given by Skilled and Unskilled Employees.

The skilled work force in the commercial unit is 27% of the total average work force. The unskilled group is 73% of the work force. In contrast with the unskilled, skilled workers in this unit gave family reasons and work conditions for 2% of the quits each. Among the unskilled workers 32% of the quits were made because of work conditions and 35% because of family relations. Only 2% of the unskilled quits were for reasons related to managerial policies. Nearly one-sixth of the quits were those made by unskilled workers without reason. The single reason given most frequently was that of another job elsewhere. The reasons for unskilled workers quitting appear in the same order as those for all workers.

Reasons Given by Various Age Groups.

Information concerning theage of the employees was available for the study of data on labor turnover in the commercial cafeteria only and is shown on Table XV page 83. What follows here is a discussion of the reasons given by the various age groups. Those who quit were divided into five age groups.

Age Group	% of Employees Who Quit
15 - 20 Years	84 %
20 - 30 "	61 %
30 - 40 "	28 %
40 - 50 "	5 %
50 and over.	8 %

The highest occurrence of quits is in the youngest age group. As the age groups advances the percent who quit is less, up to the 'over 50' age group when possibly, failing health causes an increase over the next lower group but it is still lower than any other group. Workers under 20 years of age quit because of their family and work conditions, each being reason for 16% of the quits. Those between 20 and 30 years old gave work conditions and family each as reason for 12% of the quits. Workers whose age was between 30 and 40 years quit because of the family. Only half as many of the quits were made by this age group for reasons of work conditions. The fewest number of quits appeared in the 40 to 50 year group. Of the total quits 1.6% showed reasons as job elsewhere and 1.1% showed reasons as family conditions. The employees over 50 years of age gave work conditions as reason for 1.6% of the quits. Observing the occurrence of quits without reasons recorded or given, note that the youngest age group was responsible for the largest percentage, 11%. Of the total quits, the 40 to 50 age group was responsible for no quits without reasons and the 'over 50' age group 4% of the no reason quits. Older employees would, therefore, seem to be a more stable group.

To summarize: the same percentage of unskilled workers quit as did full time workers. In each case it was about 13 times that of the skilled or part time workers. Approximately 4 times as many women quit as did men. The composition of the average work force influences the prevalence of quits. Full time workers are 98% of the work force and unskilled workers are 73% of the total work force.

Most of the reasons given for quits in the commercial cafeteria were job elsewhere by the men; family conditions by the women, the part time employees, and the full time employees; family and other job by the skilled and the unskilled employees.

TABLE XVI

DISTRIBUTION OF REASONS FOR QUITS OF THE INDUSTRIAL CAFETERIA

REASON	* M	F	% M	% F	PT	FT	% PT	% FT	SK	UN	% SK	% UN	Total Reasons	% of Total Quits
WORK CONDITIONS	9	21	9.09	21.21	--	30	---	30.30	21	9	21.21	9.09	30	30.30
wages														
hours														
dislike for job		2		2.02		2		2.02		2		2.02	2	2.02
job elsewhere	9	19	9.09	19.19		28		28.28	21	7	21.21	7.07	28	28.28
union activities														
MANAGERIAL POLICIES	--	1	--	1.01	--	1	--	1.01	1	0	1.01		1	1.01
no work available		1		1.01		1		1.01	1	0	1.01		1	1.01
staff practices														
absenteeism														
conduct														
PERSONAL REACTIONS	--	7	--	7.07	2	5	2.02	5.05	4	3	4.04	3.03	7	7.07
when told of layoff		4		4.04		4		4.04	4		4.04		4	4.04
when told to apply for job														
temporary employment		3		3.03	2	1	2.02	1.01		3		3.03	3	3.03
incapability														
FAMILY CONDITIONS	11	47	11.11	47.47	--	58	--	58.58	38	20	38.38	20.20	58	58.58
staying home													33	33.33
illness													6	6.06
moving from work area													14	14.14
returning to school													5	5.05
NO REASON KNOWN OR GIVEN	--	3	--	3.03	--	3	--	3.03	1	2	1.01	2.02	3	3.03
TOTAL NUMBER	20	79			2	97			65	34			99	
% OF TOTAL QUITS			20.20	79.79			2.02	97.97			65.65	34.34		100.00
% OF AVERAGE WORK FORCE					1.6	98.4			45	55				
% GIVING REASON	100	97			100	97			99	98			96.97	

*Explanation of Code: M - male employees PT - part time SK - skilled
F - female FT - full time UN - unskilled

Analysis of Reasons Given for Quits in the Industrial Cafeteria.

Reasons Given by All Employees.

During the two-year period of the study there were 99 quits recorded in the industrial unit. The data on reasons is given in Table XVI on page 91, and Figure VII on page 98.

Reasons for quits as given by employees who quit are distributed among the five groups of reasons as follows.

Class	Number of Quits	% to Total Quits
Family	58	58.58%
Work Conditions	30	30.3 %
Personal Reactions	7	7.07%
No Reason	3	3.03%
Managerial Policies	1	1.01%
Total	99	100.00%

A small percentage of the quits were recorded without reason. Either the employee gave no reason, or a record was not made of his reason.

Reasons were given for 96.97% of the quits. Employees who quit in the industrial unit were dissatisfied with working conditions in 30.3% of the cases. Two different reasons were given within this category, dislike for the job and job elsewhere, but wages or hours were not recorded as reason for leaving the job. However, the large number in job elsewhere, may have included some who sought a job elsewhere because the wages or hours were not satisfactory. Although the cafeteria employees are unionized and a collective bargaining contract is held with a CIO local; in no case was union activity given as a reason for a quit.

Only one skilled, full time, female employee quit her job. The reason for this quit falls into the no work reason under managerial

policy. This was a case of management telling the employee that no work was available for her in the department she had been working in. The employee merely said she would quit. The supposition is that she would have remained an employee if she had never been told there was no work. She may have reported every day and have been placed wherever needed. The chances are that after a time of being shifted from job to job as a fill-in, she would have quit anyway. Of course, a discharge of this employee may have followed an exit interview had the worker not said she would quit. From an interview with one of the staff at the industrial cafeteria it was learned that this worker was valuable and that management would have preferred to retain her. It was a case of declining volume of business, one of the food service units having been closed after the war production years.

The employees, who were told of the lay-off, worked in the same department as the one case just related. However, these four employees were told there was to be a lay-off in the future and that if they found work elsewhere, they could leave at any time. The employees' reactions to this directive from management were to quit their jobs. If the workers had not been given the opportunity of getting another job, their terminations may have appeared later as lay-offs or discharges.

The three who were temporarily employed were people who sought temporary employment. Both management and the workers, themselves, knew that they would stay on the job several months only. Therefore, the quit was not caused by any factor of the job or any characteristic of management.

The reason given most frequently in the industrial unit was staying home. Moving away from the work area, illness and returning to school are next in importance. The large percentage of people naming staying at home as a reason for quitting the job may have actually quit because of an unsatisfactory work condition. The basic reason could have been anyone of the reasons other than staying at home.

To summarize the reasons given by all the work force: the employees in the industrial unit quit for two main reasons, staying home and job elsewhere. The following is the rank of reasons for quits in the industrial cafeteria.

1. Staying Home.
2. Job Elsewhere.
3. Moving away from Work Area.
4. Illness in Family.
5. Returning to School.
6. Personal Reaction When Told of Lay-Off.
7. Personal Request for Temporary Employment.
8. Dislike for the Job.
9. Managerial Policy on No Work Available.

These reasons were given for 96.97% of the quits; the remaining 3% had no reason recorded.

Reasons Given by Men and Women.

Women employees made 80% of the quits; the men made 20% of them. The men quit for two reasons, other job and family conditions. All of the men who quit gave reason for doing so. The no reason group is made up entirely of women employees. Women gave family reasons for nearly half of the quits, job elsewhere for nearly one third while personal reaction accounted for one fourteenth.

Reasons Given by Part Time and Full Time Employees.

Comparing the full time workers and the part time workers, 98.4% of the total work force was full time and 98% of the total quits were made by full time employees. The rest of the quits were made by the part time employees who had sought temporary employment. Only one full time employee gave temporary employment as a reason for quitting, therefore, the reasons for the full time quits and for the total quits rank the same in frequency of occurrence.

Reasons Given by Skilled and Unskilled Employees.

Note that more of the quits were made by skilled workers than by unskilled workers. Out of the 99 total quits, 65% were those made by skilled employees and only 34% were made by unskilled workers. The industrial unit has a large percentage, 45%, of skilled workers on the average work force. This could account somewhat for such high percentage of skilled quits. Of the total quits only 1% was made by a skilledworker giving no reason. More family reasons were given by skilled than by unskilled workers, and family conditions was the largest group for the skilled. The only single reason under the work condition category was job elsewhere given for 21% of the quits. All those who were told of the lay-off were skilled workers. The unskilled workers gave family conditions, then job elsewhere, and least in importance was dislike for the job. All of those quitting with temporary employment as a reason were unskilled workers.

Information concerning age was not available for the industrial employees, therefore all other reasons will be summarized. Four times

as many women quit as did men; all but 2% of the quits were full time; nearly twice as many skilled workers quit as did unskilled workers. This is affected somewhat by the composition of the work force. All but 1% of the industrial food service workers were in the adult age group, and all of them are members of the CIO local.

TABLE XVII

PERCENTAGE DISTRIBUTION OF REASONS GIVEN FOR QUITS BY MEN, WOMEN, PART TIME, FULL TIME, SKILLED, UNSKILLED, AND TOTAL WORK FORCES OF THE CAMPUS, COMMERCIAL, AND INDUSTRIAL CAFETERIAS.

	PERCENTAGE TO TOTAL NUMBER OF QUITS OF THE REASONS GIVEN BY																				
	MEN			WOMEN			PART TIME			FULL TIME			SKILLED			UNSKILLED			TOTAL		
	CA* %	CO* %	IN* %	CA %	CO %	IN %	CA %	CO %	IN %	CA %	CO %	IN %	CA %	CO %	IN %	CA %	CO %	IN %	CA %	CO %	IN %
WORK CONDITIONS	4	6	9	43	28	21	--	1		48	33	30	2	2	21	46	32	9	48	34	30
wages		.5		.9	3					.9	4					.9	4		.9	4	
hours					1.6			.5			1						1.6			1.6	
dislike for job	.9	.5		20	7.5	2				21	8	2	.9			20	8	2	21	8	2
job elsewhere	3.5	5.	9	22	14.5	19		1		25.6	19	28	.9	2	21	25	18	7	26	20	8
union activities					1						1						1			1	
MANAGERIAL POLICIES		1		.9	2	1				.9	3	1		1	1	.9	2		.9	3	1
no work available						1						1			1						1
staff practices		.5			1						2			1			1			2	
absenteeism		.5			.5						1						1			1	
conduct				.9						.9						.9			.9		
PERSONAL REACTIONS				7		7			2	7		5			4	7		3	7		7
when told of layoff				1.7		4				2		4			4	2			2		4
when told to apply for job				4		3			2	4		1				4		3	4		3
temporary employment				.9						.9						.9			.9		
incapability																					
FAMILY CONDITIONS		2.7	11	17	34	47		3		17	34	58	3	2	38	14	35	20	17	37	58
staying home																			4	16	33
illness																			8	7	6
moving from work area																			3.5	11	14
going to school																			.9	3	5
NO REASON GIVEN OR KNOWN	4 9	7.5		23	18	3		3		27	23	3	3	2	1	24	24	2	27	25	3
PERCENT TOTAL REASONS TO TOTAL QUITS %	18		20	91	82	79	--	7	2	100	93	97	8	7	65	92	93	34	100	100	100
TOTAL QUITS (NUMBER)	10	33	20	103	153	79	--	13	2	113	173	97	9	13	65	104	173	34	113	186	99
PERCENT OF AVERAGE WORK FORCE %							--	2	1.6	100	98	98.4	40	27	45	60	73	55			
PERCENT GIVING REASON	96	92.5	100	77	82	97	--	93	100	73	77	97	97	98	99	76	76	98	92.57	74.73	96.97

*CA - Campus Cafeteria
*CO - Commercial Cafeteria
*IN - Industrial Cafeteria

Relative Proportion of Classes of Reasons for Quits
in the
Campus, Commercial, and Industrial Cafeterias
September 1946 to September 1948

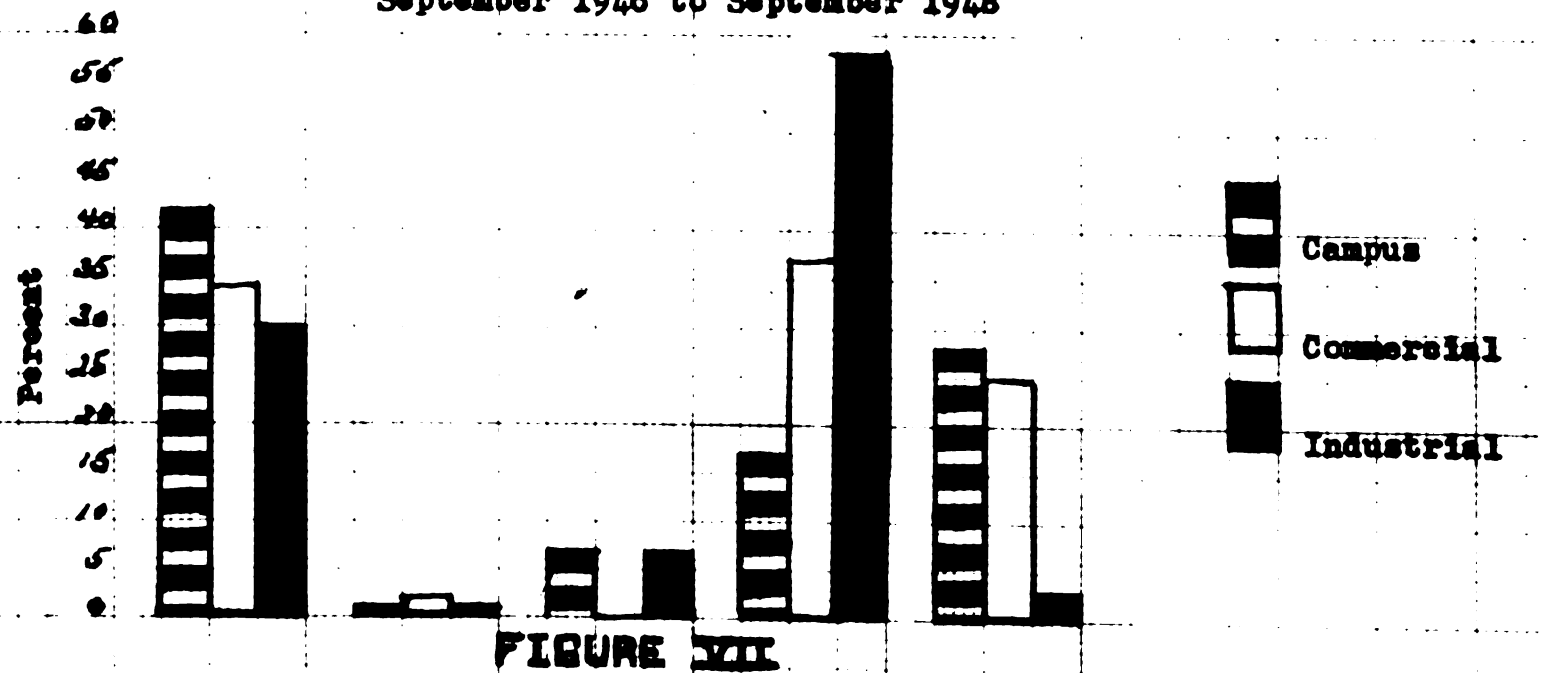

FIGURE VII

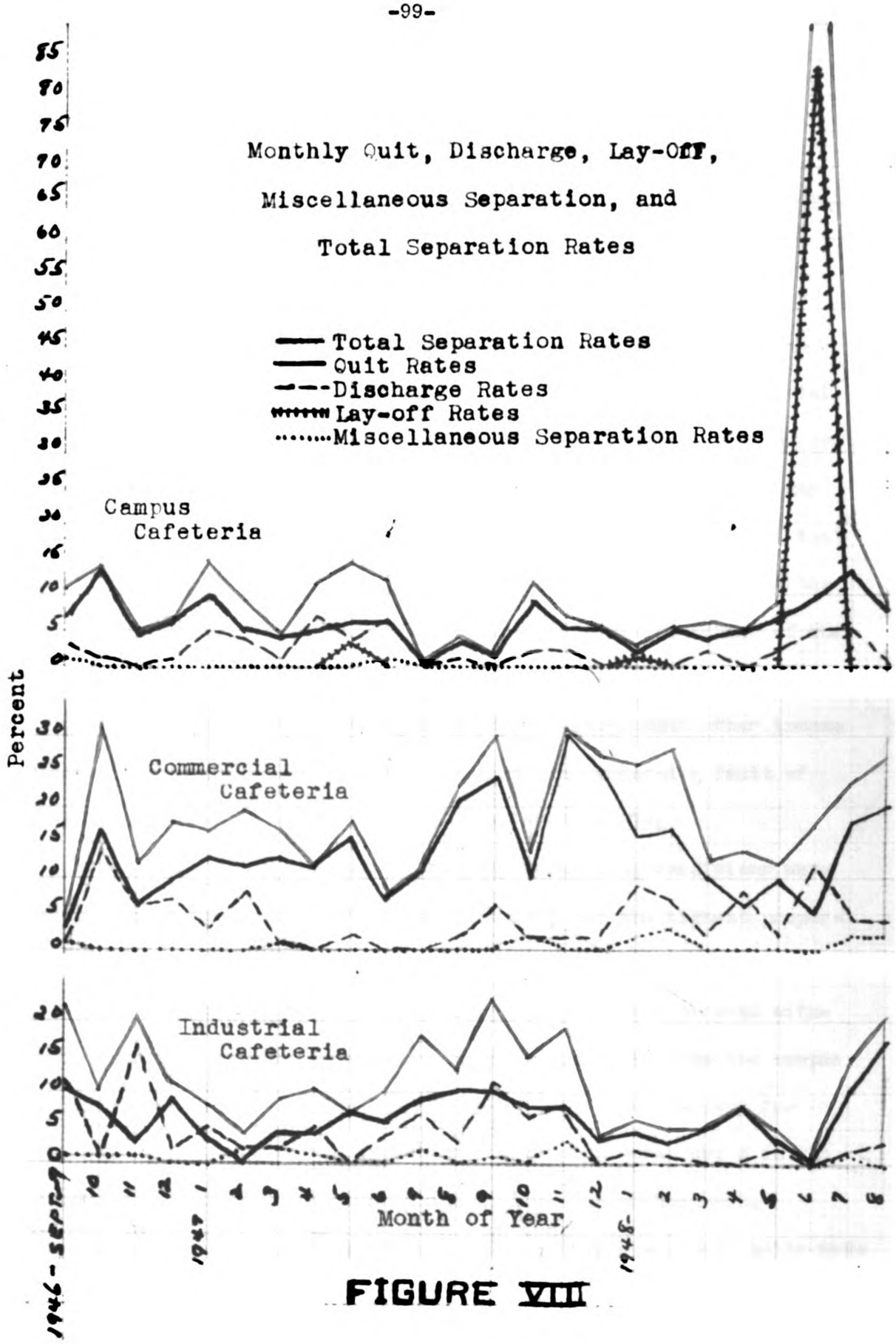
Monthly Quit, Discharge, Lay-Off,
Miscellaneous Separation, and
Total Separation Rates
Total Separation Rates
Quit Rates
Discharge Rates
Lay-off Rates
Miscellaneous Separation Rates
Campus Cafeteria
Commercial Cafeteria
Industrial Cafeteria
Percent
Month of Year
1946 - SEPT
1947 - 1
1948 - 1

FIGURE VIII

Comparison of Reasons for Quits in the Three Cafeterias.

In the campus study, of the two-thirds who gave reasons for quitting, there were five giving work conditions to every two giving family conditions as reason. Most of the commercial quits occurred because of job elsewhere or staying home. Either one of these reasons may have been a camouflage for the basic reason. The industrial study shows two quits for family reasons to every one quit for reasons due to work conditions. Concerning the industrial cafeteria, it may be concluded that it is not the characteristics of the job itself that causes the largest number of quits. Rather it is the relation of the values received from the job to the responsibilities and duties of the family and the home. It is apparent, through this analysis, that most of the people hired are those who take jobs to supplement other income or because they find time to work. It is not considered a fault of management when such is the nature of the labor supply.

Most of the quits for reasons related to working conditions were made by campus employees. The commercial unit had the highest proportion of quits due to employee's dissatisfaction with the managerial policies. Reasons, which were specific to only certain persons without an affect on others, were 7% of the total quits in both the campus and industrial units. Family conditions were given as reasons for quits most frequently in the industrial unit; the ratio was 3 in the industrial unit to 2 in the commercial to 1 in the campus unit.

Half of the campus quits and one-third of the commercial quits made by men were for unsatisfactory work conditions; men in the industrial

unit quit because of family conditions and work conditions. Women quit for reasons concerning work conditions in the campus unit, for family conditions in the commercial and industrial units. The part time work forces of the commercial and the industrial units are so small that no general conclusion can be made concerning the reason given most frequently for quitting. The full time workers quit most frequently because of work conditions in the campus but for family conditions in the industrial cafeteria. Full time employees in the commercial cafeteria quit for both family and work conditions. The skilled work force for the campus and commercial units gave practically the same distribution of reasons, being less than 10% of the total quits for each unit. The industrial skilled workers gave reasons in two categories more than 10 times as frequently as the campus or commercial skilled workers. As many skilled workers of the campus gave no reason as gave family conditions. The commercial skilled workers gave work conditions, family conditions, and no reason the same number of times. The industrial skilled workers quit most frequently because of family conditions. The unskilled workers of the campus unit quit because of unsatisfactory work conditions. The unskilled commercial workers quit for two reasons, work conditions and family conditions. Most of the industrial unskilled workers quit for family reasons.

The cafeteria with the largest percentage of men quitting was the industrial, of women who quit it was the campus. More commercial part time employees quit than did the industrial part time employees.

Except for the all-full-time work force of the campus unit, the industrial cafeteria had the larger percentage of full time workers quitting. Eight or nine times more industrial skilled workers quit than did the campus or commercial. The unskilled workers who quit in the commercial and the campus unit were responsible for approximately the same percentage of total quits and three times more than the industrial unskilled workers were responsible for.

VI

SUMMARY

Summary of Turnover Rates of Total Average Work Force.

Quit Rates. The average of the monthly quit rates is lowest in the campus cafeteria and the commercial quit rate is the highest.

Discharge Rates. The average of the monthly discharge rates is lowest in the campus cafeteria, and the commercial and industrial discharge rates are approximately the same. In any case the rates are less than 5%.

Lay-Off Rates. Lay-offs occurred in the campus cafeteria only. This was chiefly due to the closing of the operation during building construction.

Miscellaneous Rates. The average of the monthly miscellaneous separation rates is highest in the industrial unit and lowest in the campus unit; but in no case was it higher than 0.81%. In the industrial study the miscellaneous separations make up the largest part of the total separations.

Separation Rates. The highest average of the monthly separation rates is in the commercial cafeteria and the lowest is in the campus unit.

Accession Rate. The campus accession rate, the average of the monthly rates, is the lowest of the three. The commercial accession rate is the highest.

Total Average Work Force. The total average work force of the campus cafeteria is the largest and that of the commercial, the smallest.

Summary of Turnover Rates of Full Time and Part Time Average Work Forces.

In no case do the part time turnover rates have significant influence on the total turnover rates. For both the full time and the part time work force, the commercial cafeteria had the highest turnover rates of separations and of accessions. The turnover rates of the part time work force is higher than that of the full time work force of both the commercial and the industrial unit.

Summary of Turnover Rates of Skilled and Unskilled Average Work Forces.

The rates for skilled workers are highest in the industrial food service, and lowest in the campus service. Although the management of the campus and the industrial units hire about the same proportion of skilled people, the industrial skilled workers have a 12.4% turnover rate as compared to a 0.4% rate for the campus skilled workers. The rates for unskilled workers are highest in the commercial unit, and lowest in the industrial service.

Summary of Patron Data.

The average daily patron count for the entire period of the study is highest in the industrial unit, and lowest in the commercial cafeteria. In addition to having the highest patron count, the industrial establishment also has the highest average daily patron count per employee (57 patrons/employee) and the commercial has the lowest (33 patrons/employee); but for patron per line per minute of serving time the campus cafeteria serves the largest number (5.8) and the industrial, the lowest number of patrons (1.9).

The commercial cafeteria has the highest average daily patron check. The campus cafeteria has the lowest, which is five cents less than that of the commercial unit.

Summary of Labor Data.

The wage rates are lowest in the commercial cafeteria. The commercial cafeteria has the lowest range of hourly wage rates, lowest weighted average of hourly wage rates, smallest average work force, smallest standard work force, lowest weighted average of hourly wage rates for both the skilled and the unskilled workers.

The industrial cafeteria has the highest range of hourly wage rates, highest weighted average of hourly wage rates, and the highest weighted average of hourly wage rates for the unskilled workers, and lowest chef's remuneration. The campus cafeteria has the highest chef's remuneration, largest average work force, largest standard work force, highest weighted average of hourly wage rates for the skilled workers.

The employees of the commercial unit work 48 hours per week which is more than in the other units, but the weighted average of weekly wage rates is the smallest of the three. The employees of the industrial cafeteria work 40 hours a week, the least of the three places, and receive the highest weighted average weekly wage rate.

Summary of Reasons Given or Known for Quits.

Of the total number of quits approximately 33% of them were made with a reason given in the campus cafeteria, 75% in the commercial cafeteria, and 97% of the industrial. The industrial unit had the largest

category, family conditions, and the campus unit had the second largest, work conditions. Family again appeared as the largest category in the commercial unit. Managerial policies were reasons given least frequently in the campus and industrial cafeterias, and personal reaction was given the fewest number of times in the commercial operation. Nearly 50% of the reasons given in the campus unit were work conditions, a job elsewhere being the most often cited condition.

Men quit because of work conditions in the campus and commercial cafeterias, but for family conditions in the industrial. The largest reason group given by women was work conditions in the campus unit, and family in the commercial and industrial. No general conclusion can be made from the reasons given by part time employees, except that part time employees quit more in the commercial unit than in either of the others. The full time employees quit in the campus cafeteria mostly because of work condition and in the industrial mostly for family conditions. In the commercial unit the full time workers quit as many times for work conditions as for family conditions. The skilled workers were responsible for less than 10% of the quits in the campus and the commercial cafeterias. The industrial skilled workers were responsible for 65% of the industrial quits most frequently because of family conditions but also a large number because of work conditions. The unskilled workers of the campus cafeteria quit for the most part because of work conditions, but in the commercial study, the unskilled quit as frequently for family conditions as for work conditions. The industrial unskilled employees were responsible for only 34% of the industrial quits, family conditions being the reason for most of them.

VII

CONCLUSIONS AND RECOMMENDATIONS

Conclusions.

The high turnover rates of the commercial cafeteria would seem to be caused by low wages, unsatisfactory working conditions and poor managerial and supervisory personnel practices.

The lower turnover rates of the industrial cafeteria would seem to be the result of higher wages and more satisfactory working conditions. The factors which seem to be the causes of the labor turnover in the industrial cafeteria may be the policies and practices in use in hiring and selection of the employees, the low wages paid the skilled workers, and the small differential between the highest and lowest paid employee.

The lowest turnover rates in the campus cafeteria would seem to be the result of the proper hiring, selection, and placement of the employees, the large differential in range of wage rates, and generally good managerial policies. The probable causes of the existing turnover rates in the campus cafeteria may be the lack of a plan of promotion and up grading, the lack of extensive job evaluation and wage classification, the lack of uniformity in practices of employee relations, and the psychological security of the association with a state educational institution.

The exceedingly high turnover rate of the skilled industrial employees is probably caused by the low differential between wage rate paid to them and to the unskilled workers. From a tour of the cafeteria

units throughout the industrial plant, it would seem that unsatisfactory working conditions are a factor also. The range section, where the majority of the skilled workers are stationed and where the highest paid skilled workers are to be found, is poorly illuminated. There is little outside light and the artificial light seems dim and inadequate. This is made even worse by the dark color of the walls and ceiling and the battery of ranges, black in color. Lighting is a minor cause, but a basic one.

The study of skilled turnover rates shows the relative position of the rates of the types of cafeterias to be different from that of the total and full time work forces. The industrial skilled rates are the highest and the commercial skilled rates are within 2% of the lowest or campus skilled turnover rates. The high skilled industrial turnover rates are doubtless caused by the low differential between skilled and unskilled rates of pay. The weighted averages of the hourly wage rates paid to skilled employees is approximately the same for the campus and the industrial units. Each of these is over 10¢ more per hour than the weighted average of hourly rates paid to the commercial skilled employees. The differential between the weighted average of rates paid to the skilled and to the unskilled employees is 22¢ per hour for the campus employees, 16¢ for the commercial employees, and 10¢ per hour for the industrial employees.

The high turnover rates of both the part time and full time employees in the commercial cafeteria are doubtless caused by the same factors. There is one additional factor which may affect the

high part time labor turnover and that is the prevalence of student-age workers in the part time employee group. In the commercial cafeteria 84% of the quits were made by employees under 20 years of age.

Recommendations.

Whatever the cause, labor turnover is a problem, the solution of which every operator must attempt to find. Specific recommendations for each cafeteria are based on the above conclusions. Suggestions for a method of obtaining reasons for terminations would be applicable to all cafeterias.

Among the apparent causes of the existing labor turnover in the commercial cafeteria are factors which might be changed. A possible improvement of these factors would be the recommendation of the installation of a personnel program including a job evaluation plan, a supervisory and employee training schedule, and adequate hiring and selection procedures. Lines of authority should be clearly defined and explained to the worker. Changes in the physical arrangement, especially of the lunch counter, would probably make the job of serving customers much easier and less noisy. If the lunch counter could be removed from the center of the grocery to a place where shoppers interfere on one side only, it would seem that the customers being served would be happier sitting there and that the waitresses would therefore be more pleasant.

A change in policies of hiring and selection is recommended for the industrial cafeteria, so that employees without family responsibilities might be hired. This may be the main kind of labor supply in the local labor market, and if such is the case then some of those quits for family reasons shown in this study may be unavoidable. From the

information on wages, it is suggested that a wider differential be made between the wages of the skilled and the unskilled employees. Since the unskilled labor turnover rate is less than that of the skilled, and since the weighted average of hourly wage rates for the industrial unskilled is the highest of the three places, it would seem that the wage rates of the skilled employees should be increased. Any changes in the physical plant that will improve ventilation, illumination, or flooring will also improve worker efficiency by making the work easier and the employee happier.

Although the turnover rates for the campus cafeteria are lower than those of the commercial cafeteria or of the industrial cafeteria, it may be well to make recommendations or suggestions for the modification of causes of the existing rates. One cause, psychological security, is a positive one and makes turnover more nearly optimum but the lack of procedures of personnel work should be eliminated. A plan of promotion and upgrading of the employees with job evaluation and wage classification put into practice would probably reduce the number of quits, especially those occurring because of work conditions. Reasons given for quits seem to indicate that uniform employee-relations practices would be regarded by the worker as more nearly fair to all than a situation which he regards as inconsistent.

In general, the control of labor turnover for all the cafeterias is essentially the same. The first step is to analyze and compare causes of separations. Then these should be studied to interpret the actual reasons and develop probable cures. Of course, even doing this

is not enough because top management and supervisors should cooperate in taking action to correct causes for labor turnover.

Certain information can be obtained through the maintenance of proper records and the preparation of a limited amount of statistical data will show what the labor turnover is. However, statistics are not the only point of concentration. There should be some information to reveal the nature of the problem, the possible reasons for it, and to suggest some controls. The size of the problem would determine the extent to which the cafeterias would want to go in developing records and statistical information.

A person trained in interviewing may do very well in interpreting the exit interview, but none of these operations are large enough to maintain such a person. However, it would seem that the person responsible for personnel records could have the terminating employee fill out a card to show why he is leaving. It is suggested that the card include a list of possible causes with space for an employee to check the reasons for quitting according to their importance. To avoid deliberate mis-information being given by the employee, the card should be set up to give job history and personal history but not to give the employee's name. A sample card is shown on page 112.

The employee should be allowed to drop the card into a box without the clerk seeing it. Perhaps this would help to assure the employee that the information will not influence his record. The employee can not be forced to fill out such a card, hence, a plan to have the card completed before the final pay is issued could be used.

TERMINATION CARD

Age _____ Where Born _____ Sex _____

WHEN HIRED-Date _____	WHEN JOB TERMINATED-Date _____
Job Held _____	Job Held _____
Wage Rate Received _____	Wage Rate Received _____
Hours Worked/Day _____	Hours Worked/Day _____
Shift Hours _____	Shift Hours _____
Department _____	Department _____

Promotions Received from time you were hired till now. _____

Wage Increased Received from time you were hired till now. _____

CHECK	QUITS
_____	Do Not Like Wages
_____	" Hours
_____	" Place
_____	" Job Assigned
_____	" Co-workers
_____	" Supervisors
_____	" the Work
_____	Lack of Service Utilities
_____	Poor Health
_____	To move away
_____	To take another job
_____	To get married
_____	Needed at home
_____	Lack of child care
_____	Transportation
_____	Military Service
_____	Write down any other reasons.

CHECK	DISCHARGES
_____	Negligence
_____	Insubordination
_____	Irregular attendance
_____	Incompetence
_____	Violation of rules
_____	Refusal to do job assigned
_____	Unsatisfactory worker
_____	Incapable

CHECK	LAY-OFFS
_____	Lack of work in department
_____	Lack of work in plant
_____	Change of methods
_____	Reconstruction

Check ✓ for each reason for your leaving the job.
If the reason is very important check it twice, ✓✓.

The same card could be made use of to indicate reasons for discharges and lay-offs, the only difference being that management would fill in the information.

At the end of each month an analysis of the information can be made according to age, sex, skill, and length of service of the worker. It could be analyzed further by job or jobs held, wages paid, and department worked in. This analysis would be very helpful in establishing hiring policy and in determining the effectiveness of the induction and training programs.

VIII

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APPENDIX

CHART FOR COLLECTION OF INFORMATION ON PERSONNEL CHANGES IN CAFETERIA ____________

MONTH ____________ YEAR ____________

NUMBER ON PAYROLL
1st of Mo. ______
last of Mo. ______

MON. YEAR	PART TIME	FULL TIME	SKILLED	UNSKILLED	UNION MEMBER YES NO	STUDENT 16__	ADULT 16__	CHILD UNDER 16	NEW OR REHIRE	SEPARATIONS* q	d	l	m	TERMINATIONS REASONS

Operation Days/Month ______

Man Hrs./mo. ______

Payroll/mo. ______

Monthly Patron Count ______

Ave. Daily Patron Check ______

For each month ______

Monthly Labor Cost Percentage ______

* q indicates quits
d " discharges
l " lay-offs
m " miscellaneous separation

TURNOVER FIGURES OF TOTAL AVERAGE WORK FORCE OF THE CAMPUS CAFETERIA

YEAR	MONTH	AVERAGE WORK FORCE	SEPARATIONS				TOTAL	ACCESSIONS TOTAL	TOTAL PERSONNEL CHANGES	NET CHANGE A-S
			QUITS	DISCHARGES	LAYOFFS	MISCEL				
1946	9	71.5	5	2		1	8	12	20	4
	10	83	11	1			12	10	22	-2
	11	87	4				4	6	10	2
	12	95.5	6	1			7	10	17	3
1947	1	100	10	5			15	19	34	4
	2	96	5	4			9	4	13	-5
	3	97.5	4	2			6	7	13	1
	4	99.5	5	7			12	20	32	8
	5	93	6	4	4		14	4	18	-10
	6	81	5	5		1	11	1	12	-10
	7	73							0	0
	8	63.5	2	1			3	4	7	1
	9	74	1				1	15	16	14
	10	93.5	9	2			11	4	15	-7
	11	90.5	5	2			7	4	11	-3
	12	85	4				4		4	-4
1948	1	82	2		1		3	4	7	1
	2	80.5	4				4		4	-4
	3	80	3	2			5	1	6	-4
	4	78	4				4		4	-4
	5	72.5	5	2			7		7	-7
	6	53	5	3	45*		53		* 53	-53
	7	36	5	2			7	2	9	-5
	8	35	3				3	1	4	-2
(*Recorded as quits)			*(50)	(3)			(53)		* (53)	(-53)
TOTAL		1900.50	113	45	50	2	210	128	338	-82
(*Total of lay-offs recorded as quits)			(158)	(45)	(5)	(2)	(210)		*	
AVERAGE TOTAL 24-months		79.19	4.71	1.88	2.08	.08	8.75	5.33	14.08	-3.42
		For 21-months								
TOTAL		1776.5	100	40	5	2	147	125	272	-22
AVERAGE		84.59	4.76	1.90	.24	.095	7.0	5.95	12.95	-1.05

MONTHLY TURNOVER RATES OF TOTAL AVERAGE WORK FORCE OF THE CAMPUS CAFETERIA

YEAR	MONTH	AVERAGE WORK FORCE	SEPARATION RATE				TOTAL	TOTAL ACCESSIONS RATE	TOTAL PERSONNEL CHANGES RATE	NET CHANGE RATE A-S
			QUITS	DISCHARGES	LAYOFFS	MISCEL				
1946	9		6.99	2.79		1.40	11.18	16.78	27.96	5.60
	10		13.26	1.2			14.46	12.04	26.50	-2.42
	11		4.6				4.60	6.89	11.49	2.29
	12		6.28	1.05			7.33	10.47	17.80	3.14
1947	1		10.	5.			15.	19.	34.00	4.00
	2		5.21	4.16			9.37	4.17	13.54	-5.20
	3		4.1	1.02			5.12	7.18	12.30	2.06
	4		5.03	7.03			12.06	20.1	32.07	8.04
	5		6.45	4.3	4.3		15.05	4.3	19.35	-10.75
	6		6.17	6.17		1.23	13.57	1.23	14.8	-12.34
	7									0.0
	8		3.15	1.57			4.72	6.3	11.02	1.58
	9		1.35				1.35	20.27	21.62	18.92
	10		9.62	2.14			11.76	4.28	16.04	-7.48
	11		5.52	2.21			7.73	4.44	12.17	-3.29
	12		4.71				4.71		4.71	-4.71
1948	1		2.44		1.22		3.66	4.88	8.54	1.22
	2		4.97				4.97		4.97	-4.97
	3		3.75	2.5			6.25	1.25	7.50	-5.0
	4		5.13				5.13		5.13	-5.13
	5		6.89	2.75			9.64		9.64	-9.64
	6		9.43	5.66	84.9*		99.99		99.99	-99.99
	7		13.89	5.55			19.44	5.55	24.99	-13.89
	8		8.57				8.57	2.86	11.43	-5.71
*Recorded as quits			(94.34)	(5.66)			(100.00)			
TOTAL			147.51	55.10	90.42	2.63	295.66	151.99	447.65	-143.67
AVERAGE FOR 24-MONTHS			6.15	2.29	3.77	.11	12.32	6.33	18.65	-5.99
		CHECK	5.84	2.39	2.63	.10	11.04	6.73	11.78	
AVERAGE FOR 21-MONTHS										
TOTAL			115.62	43.89	5.52	2.63	167.65	143.58	311.24	-24.07
AVERAGE			5.50	2.09	.27	.12	7.98	6.84	14.82	-1.14
		CHECK	5.63	2.25	.28	.11	8.27	7.04	15.31	

TURNOVER FIGURES AND RATES OF FULL TIME AVERAGE WORK FORCE OF CAMPUS CAFETERIA

YEAR	MONTH	AVE. WORK FORCE	SEPARATIONS QUIT	DIS CHG	LAY OFF	MIS CEL	TOTAL	ACCESSIONS TOTAL	TOTAL PERS CHNGS	NET CHNG	SEPARATION RATE QUIT RATE	DCHG RATE	LOFF RATE	MISC RATE	TOTAL	ACCESSIONS RATE	TOTAL CHANGE RATE A+S	NET CHANGE RATE A-S
1946	9	71.5	5	2		1	8	12	20	4	6.99	2.79		1.40	11.18	16.78	27.96	5.60
	10	83	11	1			12	10	22	-2	13.26	1.2			14.46	12.04	26.5	-2.42
	11	87	4				4	6	10	2	4.6				4.60	6.89	11.49	2.29
	12	95.5	6	1			7	10	17	3	6.28	1.05			7.33	10.47	17.8	3.14
1947	1	100	10	5			15	19	34	4	10.	5.			15.	19.	34.	4.0
	2	96	5	4			9	4	13	-5	5.21	4.16			9.37	4.17	13.54	-5.2
	3	97.5	4	2			6	7	13	1	4.1	1.02			6.15	7.18	12.3	2.06
	4	99.5	5	7			12	20	32	8	5.03	7.03			12.06	20.1	32.07	8.04
	5	93	6	4	4		14	4	18	-10	6.45	4.03	4.3		15.05	4.3	19.35	-10.75
	6	81	5	5		1	11	1	12	-10	6.17	6.17		1.23	13.58	1.23	14.8	-12.34
	7	73							0	0					0.0			
	8	63.5	2	1			3	4	7	1	3.15	1.57			4.72	6.3	11.02	1.58
	9	74	1				1	15	16	14	1.35				1.35	20.27	21.62	18.92
	10	93.5	9	2			11	4	15	-7	9.62	2.14			11.76	4.28	16.04	-7.48
	11	90.5	5	2			7	4	11	-3	5.52	2.21			7.73	4.44	12.17	-3.29
	12	85	4				4		4	-4	4.71				4.71		4.71	-4.71
1948	1	82	2		1		3	4	7	1	2.44		1.22		3.66	4.88	8.54	1.22
	2	80.5	4				4		4	-4	4.97				4.97		4.97	-4.97
	3	80	3	2			5	1	6	-4	3.75	2.5			6.25	1.25	7.5	-5.
	4	78	4				4		4	-4	5.13				5.13		5.13	-5.13
	5	72.5	6	2			7		7	-7	6.89	2.75			9.65		9.64	-9.64
	6	53	5	3	45*		53		53	-53	9.43	5.66	84.9		100.00		99.99	-99.99
	7	36	5	2			7	2	9	-5	13.89	5.55			19.44	5.55	24.99	-13.89
	8	35	3				3	1	4	-2	8.57				8.57	2.86	11.43	-5.71
*Recorded as quits			(50)	(3)			(53)		(53)		(94.34)	(5.66)			(100.00)			
TOTAL		1900.50	113	45	50	2	210	128	338	-82	147.51	55.10	90.42	2.63	295.66	151.99	447.65	-143.67
			*(158)	(45)	(5)		(210)											
AVERAGE FOR 24-MONTHS																		
		79.19	4.71	1.88	2.08	.08	8.75	5.33	14.08	-3.42	6.15	2.29	3.77	.11	12.32	6.33	18.65	-5.99
										CHECK	5.94	2.39	2.63	.10	11.05	6.73	17.78	
AVERAGE FOR 21-MONTHS																		
TOTAL		1776.5	100	40	5	2	147	125	272	-22	115.62	43.89	5.52	2.63	167.65	143.58	311.24	-24.07
AVERAGE		84.59	4.76	1.9	.24	0.095	7.0	5.95	12.95	-1.05	5.5	2.0	.27	.12	7.98	6.84	14.82	-1.14
										CHECK	5.63	2.25	.28	.11	8.27	7.04	15.31	

TURNOVER FIGURES AND RATES OF SKILLED AVERAGE WORK FORCE OF CAMPUS CAFETERIA

YEAR	MONTH	AVE. WORK FORCE	SEPARATIONS QUIT	DIS CHG	LAY OFF	MIS CEL	TOTAL	ACCESSIONS TOTAL	TOTAL PERS CHNGS	NET CHNG	SEPARATION RATE QUIT RATE	DCHG RATE	LOFF RATE	MISC RATE	TOTAL	ACCESSIONS RATE	TOTAL CHANGE RATE A+S	NET CHANGE RATE A-S
1946	9	38	1	1			2	0	2	-2	2.63	2.63			5.26		5.26	-5.26
	10	38							0									
	11	38							0									
	12	38							0									
1947	1	38	3				3	0	3	-3	7.89				7.89		7.89	-7.89
	2	36							0									
	3	36							0									
	4	36							0									
	5	36							0									
	6	26	3				3	1	4	-2	11.54				11.54	3.85	15.39	-7.69
	7	26							0									
	8	30							0									
	9	34						2	2	2						5.88	5.88	5.88
	10	36							0									
	11	36							0									
	12	32							0									
1948	1	32							0									
	2	32							0									
	3	32							0									
	4	32							0									
	5	30	1				1	0	1	-1	3.33				3.33		3.33	-3.33
	6	20		1	12*		13	0	13	-13		5.00	60.00*		65.00		65.00	-65.00
	7	20	1				1	0	1	-1	5.00				5.00		5.00	-5.00
	8	20							0									
*Recorded as quits			(12)	(1)			(13)	(0)	(13)	(-13)*	(60.00)	(5.00)			(65.00)			
TOTAL		772.00	9	2	12		23	3	26	-20	30.39	7.63	60.00		98.02	9.73	107.75	-88.29
			(21)	(2)			(23)											
AVERAGE FOR 24-MONTHS																		
		32.16	.38	.08	.5		.95	.125	10.8	-.83	1.27	.32	2.5		4.09	.41	4.49	-3.68
									CHECK		1.16	.26	1.5		2.98	.39	3.37	
AVERAGE FOR 21-MONTHS																		
TOTAL		712	8	1	--	--	9	3	12	-6	25.39	2.63			28.02	9.73	37.75	-18.29
AVERAGE		33.9	.38	.047			.428	.143	.571	-.285	1.21	.12			1.33	.46	1.79	- .87
									CHECK		1.12	.14			1.26	.42	1.68	

TURNOVER FIGURES AND RATES OF UNSKILLED AVERAGE WORK FORCE OF CAMPUS CAFETERIA

YEAR	MONTH	AVE. WORK FORCE	SEPARATIONS QUIT	DIS CHG	LAY OFF	MIS CEL	TOTAL	ACCES SIONS TOTAL	TOTAL PERS CHNGS	NET CHNG	SEPARATION RATE QUIT RATE	DCHG RATE	LOFF RATE	MISC RATE	TOTAL	ACCES SIONS RATE	TOTAL CHANGE RATE A+S	NET CHANGE RATE A-S
1946	9	33.5	4	1		1	6	12	18	6	11.94	2.98		2.98	17.90	35.82	53.72	17.92
	10	45	11	1			12	10	22	-2	24.44	2.22			26.66	22.22	48.88	-4.44
	11	49	4				4	6	10	2	8.16				8.16	12.24	2.04	4.08
	12	57.5	6	1			7	10	17	3	10.43	1.74			12.17	17.39	29.56	5.22
1947	1	62	7	5			12	19	31	7	11.29	8.06			19.35	30.64	49.99	11.29
	2	60	5	4			9	4	13	-5	8.00	6.66			14.66	6.66	21.32	-8.0
	3	61.5	4	2			6	7	13	1	6.50	3.25			9.75	11.38	21.13	1.63
	4	63.5	5	7			12	20	32	8	7.87	11.02			18.89	31.49	50.38	12.6
	5	57.	6	4	4		14	4	18	-10	10.53	7.02	7.02		24.57	7.02	31.59	-17.55
	6	55	2	5	1		8		8	-8	3.64	9.09	1.82		14.55		14.55	-14.55
	7	47							0						0.0		0.0	0.0
	8	33.5	2	1			3	4	7	1	5.97	2.98			8.95	11.94	20.89	2.99
	9	40	1				1	13	14	12	2.50				2.5	32.5	35.0	30.
	10	57.5	9	2			11	4	15	-7	15.65	3.48			19.13	6.96	26.09	-12.17
	11	54.5	5	2			7	4	11	-3	9.17	3.67			12.84	7.34	20.18	-5.5
	12	53	4				4		4	-4	7.55				7.55		7.55	-7.55
1948	1	50	2		1		3	4	7	1	4.00		2.00		6.00	8.00	14.0	2.0
	2	48.5	4				4		4	-4	8.25				8.25		8.25	-8.25
	3	48	3	2			5	1	6	-4	6.25	4.17			10.42	2.08	12.5	-8.34
	4	46	4				4		4	-4	8.69				8.69		8.69	-8.69
	5	42.5	4	2			6		6	-6	8.41	4.70			14.11		14.11	-14.11
	6	33	5	2	33*		40		*40	-40	15.15	6.06	100.00*		121.21		121.21	-121.21
	7	16	4	2			6	2	8	-4	25.00	12.50			37.5	12.5	50.0	-25.0
	8	15	3				3	1	4	-2	20.00				20.00	6.66	26.66	-13.34
*Recorded as quits			*(38)	(2)			(40)		*(40)	(-40)	(96.96)	(6.06)			(121.21)			
TOTAL		1128.50	104 *(137)	43 (43)	39 (6)	1 (1)	187 (187)	125	*312	-62	240.39	89.6	110.84	2.98	443.81	262.84	706.65	-180.97
AVERAGE FOR 24-MONTHS																		
		47.02	4.33	1.79	1.62	.04	7.79	5.21	13.00	-2.58	10.02	3.73	4.62	.12	18.49	10.95	29.44	-7.54
										CHECK	9.21	3.81	3.45	.08	16.57	11.08	27.65	
AVERAGE FOR 21-MONTHS																		
TOTAL		1064.5	92	39	6	1	138	122	260	-16	180.24	71.04	10.84	2.98	265.1	243.68	508.78	-21.24
AVERAGE		50.69	4.38	1.85	.285	.047	6.57	5.81	12.38	-.76	8.58	3.38	.52	.14	12.62	11.60	24.22	-1.01
										CHECK	8.64	3.66	.56	.09	12.96	11.46	24.42	

TURNOVER FIGURES OF THE TOTAL AVERAGE WORK FORCE OF THE COMMERCIAL CAFETERIA

YEAR	MONTH	AVERAGE WORK FORCE	SEPARATIONS				TOTAL	ACCESSIONS TOTAL	TOTAL PERSONNEL CHANGES	NET CHANGE A-S
			QUITS	DISCHARGES	LAYOFFS	MISCEL				
1946	9	62.5	2			1	3	5	8	2
	10	71	12	11			23	14	37	-9
	11	63.5	4	4			8	10	18	2
	12	57	6	4			10	13	23	3
1947	1	54	7	2			9	13	22	4
	2	58.5	7	5			12	5	17	-7
	3	60	8	1		1	10	13	23	3
	4	57	7				7	7	14	0
	5	54.5	9	1			10	7	17	-3
	6	56.5	5				5	4	9	-1
	7	53.5	6				6	7	13	1
	8	46.5	10	1			11	8	19	-3
	9	49.5	12	3			15	22	37	7
	10	56.5	6	1		1	8	12	20	4
	11	56.5	17	1			18	12	30	-6
	12	51.5	13	1			14	15	29	1
1948	1	56	9	5		1	15	15	30	0
	2	57	10	4		2	16	10	26	-6
	3	50	5	1			6	12	18	6
	4	49.5	3	4			7	5	12	-2
	5	57	6	1			7	6	13	-1
	6	56.5	3	7			10	10	20	0
	7	49.5	9	2		1	12	7	19	-5
	8	50	10	2		1	13	11	24	-2
TOTAL		1335.	186	61		8	255	243	498	-12
AVERAGE FOR 24 MONTHS		55.62	7.75	2.54		0.33	10.62	10.12	20.75	-.5

TURNOVER RATES OF THE TOTAL AVERAGE WORK FORCE OF THE COMMERCIAL CAFETERIA

YEAR	MONTH	AVERAGE WORK FORCE	SEPARATION RATE				TOTAL	TOTAL ACCESSIONS RATE	TOTAL PERSONNEL CHANGE RATE	NET CHANGE RATE A-S
			QUITS	DISCHARGES	LAYOFFS	MISCEL				
1946	9		3.20			1.60	4.8	8.00	12.80	3.2
	10		16.9	15.49			32.39	19.72	52.11	-12.67
	11		6.3	6.3			12.6	15.75	28.35	3.15
	12		10.51	7.02			17.53	22.81	40.34	5.28
1947	1		12.96	3.7			16.66	24.07	40.73	7.41
	2		11.96	8.55			20.51	8.55	29.06	-11.96
	3		13.33	1.66		1.66	16.65	21.67	38.32	5.02
	4		12.28				12.28	12.28	24.56	0.0
	5		16.51	1.83			18.34	12.84	31.18	- 5.5
	6		8.85				8.85	7.08	15.93	- 1.77
	7		11.21				11.21	13.08	24.29	1.87
	8		21.5	2.15			23.65	17.2	40.85	- 6.45
	9		24.24	6.06			30.3	44.44	74.74	14.14
	10		10.62	1.77		1.77	14.16	21.23	35.39	7.07
	11		30.08	1.77			31.85	21.23	53.08	-10.62
	12		25.24	1.94			27.18	29.13	56.31	1.95
1948	1		16.07	8.93		1.78	26.78	26.78	53.56	0.0
	2		17.54	7.02		3.51	28.07	17.54	45.61	-10.53
	3		10.00	2.00			12.00	24.00	36.00	12.00
	4		6.06	8.08			14.14	10.10	24.24	- 4.04
	5		10.52	1.75			12.27	10.52	22.79	- 1.75
	6		5.31	12.39			17.7	17.7	35.40	0.0
	7		18.18	4.04		2.02	24.24	14.14	38.38	-10.10
	8		20.00	4.00		2.00	26.00	22.00	48.00	- 4.0
TOTAL			339.37	106.45		14.34	460.16	441.86	902.02	-18.3
AVERAGE FOR		24 MONTHS	14.14	4.43		.60	19.17	18.41	37.58	- .76
		CHECK	13.93	4.56		.60	19.10	18.20	37.30	

TURNOVER FIGURES AND RATES OF THE PART TIME AVERAGE WORK FORCE OF THE COMMERCIAL CAFETERIA

YEAR	MONTH	AVE. WORK FORCE	SEPARATIONS				TOTAL	ACCESSIONS TOTAL	TOTAL PERS CHNGS	NET CHNG A-S	SEPARATION RATE				TOTAL	ACCESSIONS RATE	TOTAL CHANGE RATE A+S	NET CHANGE RATE A-S
			QUIT	DIS CHG	LAYY OFF	MIS CEL					QUIT RATE	DCHG RATE	LOFF RATE	MISC RATE				
1946	9	1					0	1	1	1						100.	100.00	100.00
	10	1							0									0.0
	11	1		1			1	0	1	-1		100.			100.		100.	-100.
	12	1		1			1	1	2	0		100.			100.	100.	200.	0.0
1947	1	1							0									0.0
	2	1							0									0.0
	3	1	2				2	3	5	1	200.				200.	300.	500.	100.
	4	1					0	1	1	1						100.	100.	100.
	5	1	1				1	0	1	-1	100.				100.		100.	-100.
	6	1	1				1	1	2	0	100.				100.	100.	200.	0.0
	7	1					0	1	1	1						100.	100.	100.
	8	1	2				2	0	2	-2	200.				200.		200.	-200.
	9	1							0									0.0
	10	1					0	2	2	2						200.	200.	200.
	11	1	2				2	1	3	-1	200.				200.	100.	300.	-100.
	12	1					0	2	2	2						200.	200.	200.0
1948	1	1					0	1	1	1						100.	100.	100.
	2	1	2				2	0	2	-2	200.				200.		200.	-200.
	3	1					0	3	3	3						300.	300.	300.
	4	1	1				1	0	1	-1	100.				100.		100.	-100.
	5	1							0									0.0
	6	1					0	2	2	2						200.	200.	200.
	7	1	2				2	1	3	-1	200.				200.	100.	300.	-100.
	8	1							0									
TOTAL		24	13	2			15	20	35	+5	1300.	200.			1500.	2000.	3500.	500.00
AVERAGE FOR 24-MONTHS		1	.54	.08			.63	.83	1.46	.20	54.17	8.33			62.5	83.33	145.83	20.83
									CHECK		54.41	8.33			62.5	83.33	145.87	

TURNOVER FIGURES AND RATES OF THE FULL TIME AVERAGE WORK FORCE OF THE COMMERCIAL CAFETERIA

YEAR	MONTH	AVE. WORK FORCE	SEPARATIONS				TOTAL	ACCESSIONS TOTAL	TOTAL PERS CHNGS	NET CHNG A-S	SEPARATION RATE				TOTAL	ACCESSIONS RATE	TOTAL CHANGE RATE A+S	NET CHANGE RATE A-S
			QUITS	DISCHG	LAY OFF	MISCEL					QUIT RATE	DCHG RATE	LOFF RATE	MISC RATE				
1946	9	61.5	2			1	3	4	7	1	3.25			1.63	4.88	6.50	11.38	1.62
	10	70.	12	11			23	14	37	-9	17.14	15.71			32.85	20.00	52.85	-12.85
	11	62.5	4	3			7	10	17	3	6.40	4.86			11.20	16.00	27.20	4.80
	12	56	6	3			9	12	21	3	10.71	5.36			16.07	21.43	37.50	5.36
1947	1	53	7	2			9	13	22	4	13.21	3.78			16.99	24.53	41.52	7.54
	2	57.5	7	5			12	5	17	-7	12.17	8.69			20.86	8.69	29.55	-12.17
	3	59	6	1		1	8	10	18	2	10.17	1.69		1.69	13.55	16.95	30.5	3.40
	4	56	7				7	6	13	-1	12.50				12.50	10.71	23.21	- 1.79
	5	53.5	8	1			9	7	16	-2	14.95	1.87			16.82	13.08	29.9	- 3.74
	6	55.5	4				4	3	7	-1	7.20				7.20	5.40	12.6	- 1.8
	7	52.5	6				6	6	12	0	11.43				11.43	11.43	22.86	0.0
	8	45.5	8	1			9	8	17	-1	17.58	2.20			19.78	17.58	37.36	- 2.2
	9	48.5	12	3			15	22	37	7	24.74	6.18			30.92	45.36	76.28	14.44
	10	55.5	6	1		1	8	10	18	2	10.81	1.8		1.8	14.41	18.02	32.43	3.61
	11	55.5	15	1			16	11	27	-5	27.03	1.8			28.83	19.82	48.65	- 9.01
	12	50.5	13	1			14	13	27	-1	25.74	1.98			27.72	25.74	53.46	- 1.98
1948	1	55	9	5		1	15	14	29	-1	16.36	9.09		1.81	27.26	25.45	52.71	- 1.81
	2	56	8	4		2	14	10	24	-4	14.28	7.14		3.57	24.99	17.86	42.85	- 7.13
	3	49	5	1			6	9	15	3	10.20	2.04			12.24	18.37	30.61	6.13
	4	48.5	2	4			6	5	11	-1	4.12	8.25			12.37	10.31	22.68	- 2.06
	5	56	6	1			7	6	13	-1	10.71	1.78			12.49	10.71	23.2	- 1.78
	6	55.5	3	7			10	8	18	-2	5.4	12.61			18.01	14.41	32.42	- 3.60
	7	48.5	7	2		1	10	6	16	-4	14.43	4.12		2.06	20.61	12.37	32.98	- 8.24
	8	49	10	2		1	13	11	24	-2	20.40	4.08		2.04	26.52	22.45	48.97	- 4.07
TOTAL		1310.0	173	59		8	240	223	463	-17	320.93	104.97		14.6	440.5	413.17	853.67	-27.33
AVERAGE FOR 24 MONTHS		54.58	7.21	2.46		.33	10.0	9.29	19.29	-.71	13.37	4.37		.61	18.35	17.21	35.56	- 1.14
										CHECK	13.21	4.5		.61	18.32	17.02	35.34	

TURNOVER FIGURES AND RATES OF THE SKILLED AVERAGE WORK FORCE OF THE COMMERCIAL CAFETERIA

YEAR	MONTH	AVE. WORK FORCE	SEPARATIONS				TOTAL	ACCESSIONS TOTAL	TOTAL PERS CHNGS	NET CHNG A-S	SEPARATION RATE				TOTAL	ACCESSIONS RATE	TOTAL CHANGE RATE A+S	NET CHANGE RATE A-S
			QUITS	DISCHG	LAYOFF	MISCEL					QUIT RATE	DCHG RATE	LOFF RATE	MISC RATE				
1946	9	13						2	2	2						15.38	15.38	15.38
	10	13		1			1	0	1	-1		7.69			7.69		7.69	-7.69
	11	15							0						0.0		0.0	0.0
	12	14.5	1				1	3	4	2	6.89				6.89	20.85	27.74	13.96
1947	1	14.5	2				2	1	3	-1	13.79				13.79	6.89	20.68	-6.9
	2	14	1				1	0	1	-1	7.14				7.14		7.14	-7.14
	3	16	2			1	3	2	5	-1	12.5			6.25	18.75	12.50	31.25	-6.25
	4	16.5						1	1	1					0.0	6.06	6.06	6.06
	5	16.0	1				1	0	1	-1	6.25				6.25		6.25	-6.25
	6	16							0						0.0		0.0	0.0
	7	15	2				2	0	2	-2	13.33				13.33		13.33	-13.33
	8	15.5						1	1	1					0.0	6.45	6.45	6.45
	9	16	1				1	2	3	1	6.25				6.25	12.5	18.75	6.25
	10	16.5						1	1	1					0.0	6.06	6.06	6.06
	11	15.5	2				2	1	3	-1	12.9				12.9	6.45	19.35	-6.45
	12	16						1	1	1					0.0	6.06	6.06	6.06
1948	1	15		1		1	2	1	3	-1		6.66		6.66	13.32	6.66	13.32	-6.66
	2	15				1	1	1	2	0				6.66	6.66	6.66	13.32	0.0
	3	15							0						0.0		0.0	0.0
	4	15							0						0.0		0.0	0.0
	5	15							0						0.0		0.0	0.0
	6	15		1			1	1	2	0		6.66			6.66	6.66	13.32	0.0
	7	15							0						0.0		0.0	0.0
	8	14.5	1				1	0	1	-1	6.89				6.89		6.89	-6.89
TOTAL		362.5	13	3		3	19	18	37	-1	85.94	21.01		19.57	126.52	119.18	245.70	-7.34
AVERAGE FOR 24-MONTHS		15.10	.54	.13 (.125)		.13 (.125)	.79	.75	1.54	-.04	3.58	.87		.81	5.27	4.96	10.23	- .31
										CHECK	3.59	.83		.83	5.24	4.96	10.21	

TURNOVER FIGURES AND RATES OF THE UNSKILLED AVERAGE WORK FORCE OF THE COMMERCIAL CAFETERIA

YEAR	MONTH	AVE. WORK FORCE	SEPARATIONS QUITS	DIS CHG	LAY OFF	MIS CEL	TOTAL	ACCESSIONS TOTAL	TOTAL PERS CHNGS	NET CHNG A-S	SEPARATION RATE QUIT RATE	DCHG RATE	LOFF RATE	MISC RATE	TOTAL	ACCESSIONS RATE	TOTAL CHANGE RATE A+S	NET CHANGE RATE A-S
1946	9	49.5	2			1	3	3	6	0	4.04			2.02	6.06	6.06	12.12	0.0
	10	58	12	10			22	14	36	-8	20.69	17.24			37.93	24.14	62.07	-13.79
	11	48.5	4	4			8	10	18	2	8.25	8.25			16.50	20.62	37.12	4.12
	12	42.5	5	4			9	10	19	1	11.76	9.41			21.17	23.53	44.7	2.36
1947	1	39.5	5	2			7	12	19	5	12.16	5.06			17.72	30.38	48.1	12.66
	2	44.5	6	5			11	5	16	-6	13.48	11.24			24.72	11.24	35.96	-13.48
	3	44	6	1			7	11	18	4	13.64	2.27			15.91	25.00	40.91	9.09
	4	40.5	7				7	6	13	-1	17.28				17.28	14.81	32.09	-2.47
	5	38.5	8	1			9	7	16	-2	20.78	2.60			23.38	18.18	41.56	- 5.2
	6	40.5	5				5	4	9	-1	12.34				12.34	9.88	22.22	- 2.46
	7	38.5	4				4	7	11	3	10.39				10.39	18.18	28.57	7.79
	8	31	10	1			11	7	18	-4	32.26	3.26			35.52	22.58	58.1	-12.94
	9	33.5	11	3			14	20	34	6	32.83	8.95			41.78	59.70	101.48	17.92
	10	40	6	1		1	8	11	19	3	15.00	2.50		2.5	20.00	27.5	47.5	7.5
	11	41	15	1			16	11	27	-5	36.58	2.44			39.02	26.83	65.85	-12.19
	12	35.5	13	1			14	14	28	0	36.62	2.82			39.44	39.44	78.88	0.0
1948	1	41	9	4			13	14	27	1	21.95	9.76			31.71	34.15	65.86	2.44
	2	42	10	4		1	15	9	24	-6	23.81	9.52		2.38	35.71	21.43	57.14	14.28
	3	35	5	1			6	12	18	6	14.28	2.86			17.14	34.28	51.42	17.14
	4	34.5	3	4			7	5	12	-2	8.69	11.59			20.28	14.49	34.77	-5.79
	5	42	6	1			7	6	13	-1	14.28	2.38			16.66	14.28	30.94	-2.38
	6	41.5	3	6			9	9	18	0	7.23	14.46			21.69	21.69	43.38	0.0
	7	34.5	9	2		1	12	7	19	-5	26.09	5.80		2.90	34.79	20.29	55.08	-14.5
	8	35.5	9	2		1	12	11	23	-1	25.35	5.63		2.82	33.80	30.98	64.78	-2.82
TOTAL		971.5	173	58		5	236	225	461	-11	440.28	138.04		12.62	590.94	569.66	1160.60	-21.28
AVERAGE FOR 24 MONTHS		40.48	7.21	2.41		.21	9.83	9.37	19.21	-.46	18.34	5.75		.52	24.61	23.73	48.35	-.88
									CHECK		17.81	5.97		.597	24.29	23.16	47.45	

TURNOVER FIGURES OF THE TOTAL AVERAGE WORK FORCE OF THE INDUSTRIAL CAFETERIA

YEAR	MONTH	AVERAGE WORK FORCE	SEPARATIONS *			TOTAL	ACCESSIONS TOTAL	TOTAL PERSONNEL CHANGES	NET CHANGE A-S
			QUITS	DISCHARGES	MISCEL				
1946	9	71	7	8	1	16	15	31	-1
	10	75	6	1	1	8	9	17	1
	11	78.5	2	14	1	17	22	39	5
	12	83.5	8	2		10	12	22	2
1947	1	82	3	4		7	14	21	7
	2	82.5		2	2	4	5	9	1
	3	75.5	3	2	2	7	3	10	-4
	4	74	3	4	1	8	1	9	-7
	5	69	5			5	4	9	-1
	6	66	4	3		7	5	12	-2
	7	43	4	3	1	8	4	12	-4
	8	57.5	6	2		8	10	18	2
	9	60	6	7	1	14	9	23	-5
	10	59	5	4		9	11	20	2
	11	60	5	5	2	12	9	21	-3
	12	57.5	2			2	4	6	2
1948	1	48.5	2	1		3	3	6	0
	2	59	2	1		3	3	6	0
	3	60.5	3			3	3	6	0
	4	58.5	5			5	1	6	-4
	5	58	2	1		3	3	6	0
	6	54	0				2	2	2
	7	57	6	1	1	8	17	25	9
	8	56.5	10	2		12	4	16	-8
TOTAL		1546.00	99.0	67.0	13.0	179	173	352	-6
AVERAGE FOR 24 MONTHS		64.42	4.13	2.79	.54	7.46	7.21	14.67	-.25

* No lay-offs occurred in the industrial cafeteria.
The column for lay-offs is omitted on each sheet for the industrial cafeteria.

TURNOVER RATES OF THE TOTAL AVERAGE WORK FORCE OF THE INDUSTRIAL CAFETERIA

YEAR	MONTH	AVERAGE WORK FORCE	SEPARATION RATE				TOTAL	TOTAL ACCESSIONS RATE	TOTAL PERSONNEL CHANGE RATE	NET CHANGE RATE A-S
			QUITS	DISCHARGES	LAYOFFS	MISCEL				
1946	9		9.86	11.27		1.41	22.54	21.13	43.67	-1.41
	10		8	1.33		1.33	10.66	12.00	22.66	1.34
	11		2.55	17.84		1.27	21.66	28.02	49.68	6.36
	12		9.58	2.39			11.97	14.37	26.34	2.4
1947	1		3.66	4.88			8.54	17.07	25.61	8.53
	2			2.42		2.42	4.84	6.06	10.9	1.22
	3		3.97	2.65		2.65	9.27	3.97	13.24	-5.3
	4		4.05	5.41		1.35	10.81	1.35	12.16	-9.46
	5		7.25				7.25	5.80	13.05	-1.45
	6		6.06	4.54			10.60	7.57	18.17	-3.03
	7		9.30	6.98		2.32	18.60	9.30	27.90	-9.3
	8		10.43	3.48			13.91	17.39	31.3	3.48
	9		10.00	11.66		1.66	23.32	15.00	38.32	-8.32
	10		8.47	6.77			15.24	18.64	33.88	3.4
	11		8.33	8.33		3.33	19.99	15.00	34.99	-4.99
	12		3.48				3.48	6.96	10.44	3.48
1948	1		4.12	2.06			6.18	6.18	12.36	0.0
	2		3.39	1.69			5.08	5.08	10.16	0.0
	3		4.96				4.96	4.96	9.92	0.0
	4		8.55				8.55	1.71	10.26	-6.84
	5		3.45	1.72			5.17	5.17	10.34	0.0
	6							3.70	3.7	3.7
	7		10.53	1.75		1.75	14.03	29.82	43.85	15.79
	8		17.7	3.54			21.24	7.08	28.32	-14.16
TOTAL			157.69	100.71		19.49	277.89	263.33	541.22	-14.56
AVERAGE FOR 24-MONTHS			6.57	4.2		.81	11.58	10.97	22.55	-.61
		CHECK	6.403	4.3		.84	11.56	11.19	22.77	

TURNOVER FIGURES AND RATES OF THE PART TIME AVERAGE WORK FORCE OF THE INDUSTRIAL CAFETERIA

YEAR	MONTH	AVE. WORK FORCE	SEPARATIONS			TOTAL	ACCESSIONS TOTAL	TOTAL PERS CHNGS	NET CHNG A-S	SEPARATION RATE				TOTAL	ACCESSIONS RATE	TOTAL CHANGE RATE A+S	NET CHANGE RATE A-S
			QUIT	DISCHG	MISCEL					QUIT RATE	DCHG RATE	LOFF RATE	MISC RATE				
1946	9	1						---									
	10	1						---									
	11	1						---									
	12	1						---									
1947	1	1						---									
	2	1						---									
	3	1						---									
	4	1						---									
	5	1						---									
	6	1						---									
	7	1						---									
	8	1						---									
	9	1						---									
	10	1						---									
	11	1						---									
	12	1						---									
1948	1	1						---									
	2	1						---									
	3	1						---									
	4	1						---									
	5	1						---									
	6	1					2	2	2						200.	200.	200.
	7	1	2	1		3	1	4	-2	200.0	100.			300.00	100.	400.	-200.
	8	1						---									
TOTAL		24	2	1	0	3	3	6	0	200.	100.			300.00	300.	600.	0.0
AVERAGE FOR 24-MONTHS		1	.08	.04		.125	.125	.25		8.33	4.16			12.5	12.5	25.0	0.0
								CHECK		8.33	4.16			12.5	12.5	25.0	

TURNOVER FIGURES AND RATES OF THE FULL TIME AVERAGE WORK FORCE OF THE INDUSTRIAL CAFETERIA

YEAR	MONTH	AVE. WORK FORCE	SEPARATIONS QUIT	DIS CHG	MIS CEL	TOTAL	ACCES SIONS TOTAL	TOTAL PERS CHNGS	NET CHNG A-S	SEPARATION RATE QUIT RATE	DCHG RATE	LOFF RATE	MISC RATE	TOTAL	ACCES SIONS RATE	TOTAL CHANGE RATE A+S	NET CHANGE RATE A-S
1946	9	70	7	8	1	16	15	31	-1	10.0	11.43		1.42	22.85	21.43	44.28	-1.42
	10	74	6	1	1	8	9	17	1	8.11	1.35		1.35	10.81	12.16	23.47	1.35
	11	77.5	2	14	1	17	22	39	5	2.58	18.07		1.29	21.94	28.38	50.32	6.44
	12	82.5	8	2		10	12	22	2	9.7	2.42			12.12	14.54	26.66	2.42
1947	1	81	3	4		7	14	21	7	3.7	4.94			8.64	17.28	25.92	8.64
	2	81.5		2	2	4	5	9	1		2.45		2.45	4.9	6.13	11.03	1.23
	3	74.5	3	2	2	7	3	10	-4	4.03	2.68		2.68	9.39	4.03	13.42	-5.36
	4	73	3	4	1	8	1	9	-7	4.11	5.48		1.37	10.96	1.37	12.33	-9.59
	5	68	5			5	4	9	-1	7.35				7.35	5.88	13.23	-1.47
	6	65	4	3		7	5	12	-2	6.15	4.61			10.76	7.69	18.45	-3.09
	7	42	4	3	1	8	4	12	-4	9.52	7.14		2.38	19.04	9.52	28.56	-9.52
	8	56.5	6	2		8	10	18	2	10.62	3.54			14.16	17.70	31.86	3.54
	9	59	6	7	1	14	9	23	-5	10.17	11.86		1.69	23.73	15.25	38.97	-8.48
	10	58	5	4		9	11	20	2	8.62	6.90			15.52	18.96	34.48	3.44
	11	59	5	5	2	12	9	21	-3	8.47	8.47		3.39	20.33	15.25	35.58	-5.08
	12	56.5	2			2	4	6	2	3.54				3.54	7.08	10.62	3.54
1948	1	47.5	2	1		3	3	6	0	4.21	2.1			6.31	6.31	12.62	0.0
	2	58	2	1		3	3	6	0	3.45	1.72			5.17	5.17	10.34	0.0
	3	59.5	3			3	3	6	0	5.04				5.04	5.04	10.08	0.0
	4	57.5	5			5	1	6	-4	8.69				8.69	1.74	10.43	-6.95
	5	57	2	1		3	3	6	0	3.51	1.75			5.26	5.26	10.52	0.0
	6	53	0			0	0	0	0					00.0		00.0	0.0
	7	56	4		1	5	16	21	11	7.14			1.78	8.92	28.57	37.49	19.65
	8	55.5	10	2		12	4	16	-8	18.02	3.6			21.62	7.21	28.83	-14.41
TOTAL		1522.	97	66	13	176	170	346	-6	156.72	100.52		19.8	277.04	262.45	539.48	-14.59
AVERAGE FOR 24 MONTHS		63.42	4.04	2.75	.54	7.33	7.08	14.41	-.25	6.53	4.19		.82	11.54	10.95	22.49	-.59
									CHECK	6.37	4.37		.85	11.56	10.72	22.73	

TURNOVER FIGURES AND RATES OF THE SKILLED AVERAGE WORK FORCE OF THE INDUSTRIAL CAFETERIA

YEAR	MONTH	AVE. WORK FORCE	SEPARATIONS QUIT	DIS CHG	MIS CEL	TOTAL	ACCES SIONS TOTAL	TOTAL PERS CHNGS	NET CHNG A-S	SEPARATION RATE QUIT RATE	DCHG RATE	LOFF RATE	MISC RATE	TOTAL	ACCES SIONS RATE	TOTAL CHANGE RATE A+S	NET CHANGE RATE A-S
1946	9	35	3	1		4	9	13	5	8.57	2.86			11.43	25.71	37.14	14.28
	10	35	6	1	1	8	9	17	1	17.14	2.86		2.86	22.86	25.71	48.57	2.85
	11	35	2	11	1	14	19	33	5	5.71	31.43		2.86	40.00	54.28	94.28	14.28
	12	40	7	2		9	9	18	0	17.50	5.00			22.5[illegible]	22.50	45.	0.0
1947	1	40					7	7	7					0.00	17.50	17.5	17.50
	2	40		1	2	3	1	4	-2		2.50		5.00	7.50	2.50	10.	-5.0
	3	30	2			2	1	3	-1	6.66				6.66	3.33	9.99	-3.33
	4	30	3	1	1	5		5	-5	10.00	3.33		3.33	16.66		16.66	-16.66
	5	28	3			3	1	4	-2	10.71			10.71	21.42	3.57	24.99	-17.85
	6	26	2	1		3	2	5	-1	7.69	3.84			11.53	7.69	19.22	-3.84
	7	24	2	1	1	4	2	6	-2	8.33	4.16		4.16	16.65	8.33	24.98	-8.32
	8	26	3			3	3	6	0	11.54				11.54	11.54	23.08	0.0
	9	26	4	1	1	6	5	11	-1	15.38	3.84		3.84	23.06	19.23	42.29	-3.83
	10	26	3	2		5	1	6	-4	11.54	7.69			19.23	3.84	23.07	-15.39
	11	26	3		2	5		5	-5	11.54			7.69	19.23		19.23	-19.23
	12	26					1	1	1					0.00	3.84	3.84	3.84
1948	1	24	2			2	1	3	-1	8.33				8.33	4.16	12.49	- 4.17
	2	26	2			2	1	3	-1	7.69				7.69	3.84	11.53	- 3.85
	3	26	2			2	2	4	0	7.69				7.69	7.69	15.38	0.0
	4	26	4			4	1	5	-3	15.38				15.38	3.84	19.22	-11.54
	5	26	1			1	2	3	1	3.84				3.84	7.69	11.53	3.85
	6	26						0	0					0.00	0.00	0.0	0.0
	7	26	2	0	1	3	13	16	10	7.69			3.84	11.53	50.00	61.53	38.47
	8	26	9			9	3	12	-6	34.61				34.61	11.54	46.15	-23.07
TOTAL		699	65	22	10	97	93	190	-4	227.54	67.51		44.29	339.34	298.33	637.67	-41.01
AVERAGE FOR 24 MONTHS		29.12	2.71	.92	.42	4.05	3.87	7.92	-.15	9.48	2.81		1.84	14.13	12.43	26.56	-1.70
									CHECK	9.29	3.15		1.43	13.87	13.3	27.18	

TURNOVER FIGURES AND RATES OF THE UNSKILLED AVERAGE WORK FORCE OF THE INDUSTRIAL CAFETERIA

YEAR	MONTH	AVE. WORK FORCE	SEPARATIONS QUIT	DIS CHG	MIS CEL	TOTAL	ACCESSIONS TOTAL	TOTAL PERS CHNGS A+S	NET CHNG A-S	SEPARATION RATE QUIT RATE	DCHG RATE	LOFF RATE	MISC RATE	TOTAL	ACCESSIONS RATE	TOTAL CHANGE RATE A+S	NET CHANGE RATE A-S
1946	9	36	4	7	1	12	6	18	-6	11.11	19.44		2.77	33.32	16.66	49.98	-16.66
	10	40							0					0.0		0.0	0.0
	11	43.5		3		3	3	6	0		6.89			6.89	6.89	13.78	0.0
	12	43.5	1			1	3	4	2	2.30				2.30	6.89	9.19	4.59
1947	1	42	3	4		7	7	14	0	7.14	9.52			16.66	16.66	33.32	0.0
	2	42.5		1		1	4	5	3		2.35			2.35	9.41	11.76	7.06
	3	45.5	1	2	2	5	2	7	-3	2.20	4.39		4.39	10.98	4.39	15.37	-6.59
	4	44		3		3	1	4	-2		6.81			6.81	2.29	9.08	-4.54
	5	41	2			2	3	5	1	4.87				4.87	7.32	12.19	2.45
	6	40	2	2		4	3	7	-1	5.00	5.00			10.00	7.60	17.60	-2.40
	7	19	2	2		4	2	6	-2	10.52	10.52			21.04	10.52	31.56	-10.52
	8	31.5	3	2		5	7	12	2	9.52	6.35			15.87	22.22	38.09	6.35
	9	34	2	6		8	4	12	-4	5.88	17.65			23.53	11.76	35.29	-11.77
	10	33	2	2		4	10	14	6	6.06	6.06			12.12	30.30	42.42	18.18
	11	34	2	5		7	9	16	2	5.88	14.70			20.58	26.47	47.05	5.89
	12	31.5	2			2	3	5	1	6.35				6.35	9.52	15.87	3.17
1948	1	24.5		1		1	2	3	1		4.08			4.08	8.16	12.24	4.08
	2	33		1		1	2	3	1		3.03			3.03	6.06	9.09	3.03
	3	34.5	1			1	1	2	0	2.90				2.90	2.90	5.8	0.0
	4	32.5	1			1		1	-1	3.08				3.08		3.08	-3.08
	5	32	1	1		2	1	3	-1	3.12	3.12			6.24	3.12	9.36	-3.12
	6	28					2	2	2					0.0	7.14	7.14	7.14
	7	31	4	1		5	4	9	-1	12.90	3.22			16.12	12.90	29.02	-3.22
	8	30.5	1	2		3	1	4	-2	3.28	6.56			9.84	3.28	13.12	-6.56
TOTAL		847.00	34	45	3	82	80	162	-2	102.11	129.69		7.16	238.96	232.44	471.40	-6.52
AVERAGE FOR 24 MONTHS		35.29	1.42	1.87	.125	3.42	3.33	6.75	-.083	4.25	5.4		.3	9.95	9.68	19.63	- .27
									CHECK	4.01	5.31		.35	9.68	9.44	19.12	

SUMMARY OF THE 24-MONTH AVERAGES OF THE MONTHLY TURNOVER RATES OF THE STUDENT, ADULT, AND CHILD AGE AVERAGE WORK FORCES IN THE THREE TYPES OF CAFETERIAS, SEPTEMBER 1946 TO SEPTEMBER 1948

Column No.	2	3	4	5	6	7	8	9	10
Type of Cafeteria	Average Work Force	Quit Rate %	Discharge Rate %	Lay-off Rate %	Miscellaneous Rate %	Separation Rate (Sum of Cols 3,4,5,6) %	Accession Rate %	Total Change Rate (Columns 7 and 8) %	Net Change Rate (Column 8 minus 7) %
Average of 24-month totals for STUDENT EMPLOYEES									
Campus*	---	---	---	---	---	---	---	---	---
Commercial	1.48	11.79	---	---	---	11.79	17.33	29.12	+5.54
Industrial	.083	---	---	---	---	---	8.33	8.33	+8.33
Average of 24-month totals for ADULT EMPLOYEES									
Campus*	84.6	5.5	2.09	.27	.12	7.98	6.84	14.82	-1.14
Commercial	53.2	13.24	4.47	---	.62	18.33	17.42	37.75	- .92
Industrial	64.3	6.59	4.2	---	.81	11.6	10.85	22.45	- .75
Average of 24-month totals for CHILD AGE EMPLOYEES									
Campus*	---	---	---	---	---	---	---	---	---
Commercial	1	58.3	8.3	---	---	66.6	62.5	129.6	-4.16
Industrial	---	---	---	---	---	---	---	---	---

* The average rates given for the Campus Unit studied are for a 21-month period.