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LABOR HOURS AND LABOR COST FOR TWO TYPES OF NOON HOUR SCHEDULING IN A COLLEGE RESIDENCE HALL CAFETERIA

Thesis for the Degree of M. S.

MICHIGAN STATE UNIVERSITY

Vivian Eloise Hubbard

1959

THESIS

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LABOR HOURS AND LABOR COST FOR TWO TYPES OF NOON HOUR SCHEDULING IN A COLLEGE RESIDENCE HALL CAFETERIA

By

Vivian Eloise Hubbard

A PROBLEM

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INTRODUCTION

College and University enrollments have shown a marked annual increase since World War II. This trend indicates that a greater percentage of high school graduates will continue to enter college.

The responsibility for the well being of the students away from home is recognized by college administrators, and they strive to furnish facilities for comfortable housing and adequate food service. In spite of the oft avowed resolution to make college residence halls a "home away from home," even under the most ideal conditions, life in a residence hall never closely approximates the home environment. Food service for students is one of the most widely recognized problems on a college campus. Planning meals for a large group always creates the problem of satisfying as many people as possible. Pleasing becomes more difficult as the group size increases. Young people away from home complain about food they are served. These complaints are no more than reactions to the unfamiliar, unfamiliar foods and familiar foods prepared in unfamiliar ways.

The Department of Residence Hall Food Service at Michigan State University does not accept complaints as inevitable. They know that ham, steak, cutlets and roasts do not always appeal to the students more than hamburgers or a

well seasoned stew. Consequently, popular low cost items such as frankfurters, hamburgers, cold meats, liver and fish stix are served periodically, as well as turkey, swiss steak, roast beef, canadian bacon, veal cutlets and shrimp.

Seasoning and serving food to please a captive group has always presented difficulties to the food service operator. Taste, flavor, texture and temperature all play an important part in making food satisfying to the senses. Cultural and regional food patterns are also problems specific to institutional food service. What looks appetizing to one individual may be quite unacceptable to another. These habits cannot be easily changed, particularly for people who have a limited knowledge of food and food preparation.

To satisfy physiologically, meals should prevent the return of hunger before the next regular time for eating. College students are generally active, and high protein or high fat meals are required to furnish the satiety value and energy for the long hours of study and strenuous physical activities.

Michigan State University places a high priority value on student welfare and is interested in furnishing the student nutritionally adequate meals. The Residence Hall Food Service is not only responsible for satisfying students but also for their nutritional status, which is a factor directly related to classroom work. The package plan of room and meals at a fixed fee for the term, provides a framework

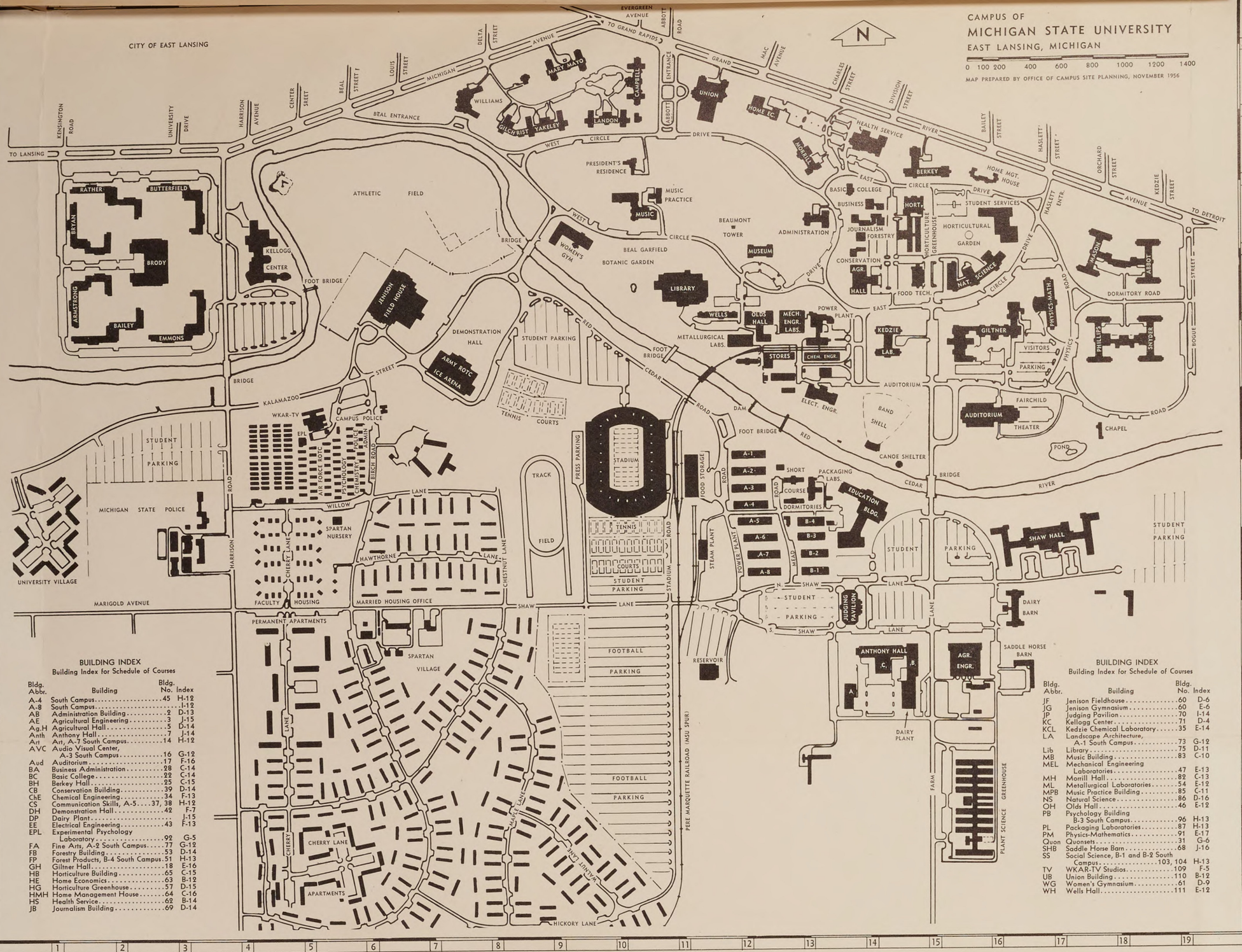
for considering the wise utilization of all available funds.

At the time of this study the campus had 102 permanent buildings, 450 temporary buildings, 20 miles of roadways and 50 miles of walkways. Approximately 20,000 students were enrolled in 130 courses, 70 of which offered graduate credit toward advanced degrees. Figure 1 shows a schematic map of Michigan State University campus in 1959. The distance between the residence halls for men and women and many of the classroom buildings is readily apparent.

During the 1958-59 academic year the Department of Dormitories and Food Services realized that the noon meal hour should be extended in order to accomodate students whose time was limited by class schedules and classroom distance. Since the extended lunch period offers many advantages, its relationship to labor cost is important for management to consider.

The purpose of this study was to:

1. Determine labor minutes per resident for preparation and service of the noon luncheon for Mason-Abbot Residence Hall, Monday through Friday, for fall term 1958 and winter term 1959.
2. To determine labor cost per resident for preparation and service of the noon luncheon for Mason-Abbot Residence Hall, Monday through Friday, for fall term 1958 and winter term 1959.



BUILDING INDEX

Building Index for Schedule of Courses

Bldg. Abbr.	Building	Bldg. No.	Index
A-4	South Campus	45	H-12
A-8	South Campus		I-12
AB	Administration Building	2	D-13
AE	Agricultural Engineering	3	J-15
Ag.H	Agricultural Hall	5	D-14
Anth	Anthony Hall	7	J-14
Art	Art, A-7 South Campus	14	H-12
AVC	Audio Visual Center, A-3 South Campus	16	G-12
Aud	Auditorium	17	F-16
BA	Business Administration	28	C-14
BC	Basic College	22	C-14
BH	Berkey Hall	25	C-15
CB	Conservation Building	39	D-14
ChE	Chemical Engineering	34	F-13
CS	Communication Skills, A-5	37, 38	H-12
DH	Demonstration Hall	42	F-7
DP	Dairy Plant		J-15
EE	Electrical Engineering	43	F-13
EPL	Experimental Psychology Laboratory	92	G-5
FA	Fine Arts, A-2 South Campus	77	G-12
FB	Forestry Building	53	D-14
FP	Forest Products, B-4 South Campus	51	H-13
GH	Giltner Hall	18	E-16
HB	Horticulture Building	65	C-15
HE	Home Economics	63	B-12
HG	Horticulture Greenhouse	57	D-15
HMH	Home Management House	64	C-16
HS	Health Service	62	B-14
JB	Journalism Building	69	D-14

BUILDING INDEX

Building Index for Schedule of Courses

Bldg. Abbr.	Building	Bldg. No.	Index
JF	Jenison Fieldhouse	60	D-6
JG	Jenison Gymnasium	60	E-6
JP	Judging Pavilion	70	I-14
KC	Kellogg Center	71	D-4
KCL	Kedzie Chemical Laboratory	35	E-14
LA	Landscape Architecture, A-1 South Campus	73	G-12
Lib	Library	75	D-11
MB	Music Building	83	C-10
MEL	Mechanical Engineering Laboratories	47	E-13
MH	Morrill Hall	82	C-13
ML	Metallurgical Laboratories	54	E-12
MPB	Music Practice Building	85	C-11
NS	Natural Science	86	D-16
OH	Olds Hall	46	E-12
PB	Psychology Building B-3 South Campus	96	H-13
PL	Packaging Laboratories	87	H-13
PM	Physics-Mathematics	91	E-17
Quon	Quonsets	31	G-6
SHB	Saddle Horse Barn	68	J-16
SS	Social Science, B-1 and B-2 South Campus	103, 104	H-13
TV	WKAR-TV Studios	109	F-5
UB	Union Building	110	B-12
WG	Women's Gymnasium	61	D-9
WH	Wells Hall	111	E-12

Figure 1. Campus of Michigan State University.

3. To summarize factors determining increase or decrease in labor cost for winter term 1959.

The data in this report do not provide operational standards for college and university residence halls. However, certain management techniques presented and discussed may prove valuable in further investigation of the extended noon hour for residence hall food service.

PROCEDURE

Mason-Abbot Residence Hall was selected for this study for the periods of September 29 through November 21 for fall term 1958 and January 12 through March 6 for winter term 1959. These eight week intervals excluded the first and last week of each term and allowed time for schedule adjustments, for new student employees to become acquainted with their responsibilities and final examination adaptations. Data were collected for the noon meal served Monday through Friday from 11:30 a.m. to 12:30 p.m. fall term 1958 and also for the extended noon hour service during winter term 1959, 10:30 a.m. to 1:30 p.m.

Operational information was secured from the manager and staff of Mason-Abbot Residence Hall. Data were compiled from payroll records, census records, observation and consultation with the staff. The extended lunch hour did not affect schedules and pay for full time employees; consequently, time records for students engaged in bussing, serving, trucking and ware washing were those considered pertinent for tabulation. Time schedules and pay rates for the following student employee classifications were tabulated: food trucker, main dish server, vegetable or soup server, salad and bread girl, beverage and dessert girl, bus boys, dish room helpers, hostess and door girl.

On worksheets (Appendix Exhibit 1) the names of student employees were listed for each day. The time worked in hours and rate of pay were recorded. The total pay for each student was computed by multiplying the labor time by the pay rate. Weekly meal census was figured by averaging daily customer counts. Student labor time was calculated in minutes and summarized by the day in conjunction with the daily labor cost and daily census. See Appendix Tables 1 and 2.

For the two periods of the study summaries were prepared for meal census and labor cost by weeks and for meal census and labor time by weeks. See Appendix Tables 3, 4, 5 and 6. A comparison of noon meal hour scheduling for fall term 1958 and winter term 1959 was made on the basis of customers per labor hour, minutes of labor and labor cost per customer, daily labor hours and labor cost averages.

DISCUSSION

The department of housing and food service at Michigan State University included ten residence halls for women and eight residence halls for men during the 1958-59 academic year. The food service department of each residence hall, directed by a manager and a dietitian, was responsible for preparation and service of meals for resident students, guests, resident staff and employees. The operation of all food service units on campus was coordinated by the Director of Residence Hall Food Service.

Residence Halls at Michigan State University

The philosophy of the administrators at Michigan State University has always been to provide housing and food service facilities for students. The residence hall program dates to the beginning of campus life when there were three buildings, a college hall, a boarding hall and a stable. In 1857 there were eighty-one male students living in the dormitory and served in the dining room. In 1870 space was provided for female students who entered and lived with the steward's family on the first floor of Williams Hall. In 1872 every available room was needed for men and the faculty rejected sixteen female applicants, accepting only those who could live at home, with relatives or friends.

Board was the most expensive item in the earlier years at Michigan Agricultural College. When the weekly rate of $2.50 was increased in 1881, students complained that the quality of the food did not justify the additional charge. They petitioned the State Board of Agriculture to investigate the meal charges and the steward resigned. The successor to the steward was praised for his improved food, but as the board charge approached $3.15 per week small cooperative boarding clubs were organized. In 1883 five such clubs existed. Each club elected a steward who purchased provisions and hired a cook who, in turn hired kitchen and dining room employees. Thereafter five dining rooms were in operation; three in the partitioned dining room on the ground floor of Williams Hall and two in the basement of Wells Hall. Not only was the price of food lowered to an average of $2.50 a week, but in the smaller groups of thirty or forty students, menus were more responsive to individual tastes. The food was reported to be better and served warmer.

The Board of Agriculture approved a course for women at Michigan Agriculture College in 1871. Five years later in 1876 courses in Household Economy were offered. Before this time women had taken the same courses as the men.

In 1896 old Abbot Hall, a dormitory for men, was remodeled for forty women students. The addition to this dormitory included dining room space, a sewing room and a cooking laboratory. Equipping, furnishing and moving into the new Women's Building from Abbot Hall in 1900 involved

hard labor, but resulted in great advance for the Women's Department. The new four storied building incorporated some features in a combined dormitory and academic structure. The front entrance opened into a wide hall suitably furnished with long settees and good pictures on the walls. The second floor housed a kitchen laboratory and an adjacent dining room for class use. Comfort and convenience were considered in furnishing the student rooms. Single beds, mattresses, pillows, a study table, bookcase, dresser and wash stand were provided. Each room had a large closet, ample for the use of two, even in the day of voluminous skirts.

After completion of the Home Economics Building in 1924, the Women's Building was reserved for dormitory space. All offices and laboratories were changed into private rooms and an additional bathroom was installed on each floor. In 1938 the Women's Building, remodeled for office and classroom space, was renamed Morrill Hall.

The first permanent residence hall for women, Mary Mayo Hall, was completed in 1931 and introduced a new era in campus building. This dormitory housed 246 women under one roof, yet preserved the community life of a smaller residence. The H plan of the building introduced the principle of a divided living unit with a separate lobby, parlor and dining room. A common kitchen was provided in the crossing of the H. Two residence halls for women constructed before World War II, Williams Hall in 1937 and Campbell Hall in 1939, followed the same general layout. At the close of

World War II Landon Hall, Yakeley Hall and Gilchrist Hall completed the residence hall group for women on north campus.

Housing for men on campus did not keep pace with the growth of Michigan State University for a number of years. During 1938 Wells Hall housed 200 men, fraternities accomodated 600, and another 600 lived with parents, friends and relatives, and 2,000 roomed in East Lansing and Lansing. Some of the roomers found good rooms, others did not. One student was found living in an unheated attic room reached by a ladder on the outside of the house.

East Lansing restaurants served the college roomers with the exception of those who could not afford the weekly five dollar board charge and prepared their own meals. Two men described in a 1938 State News article their pleasant survival on two dollars a week each, the sum that secured an abundance of spaghetti, day old bread, red beans, peas, beef heart and hamburger at 15¢ per pound.

Mason Hall was opened in 1938 and Abbot Hall in 1940 as an experimental solution to the problem of housing men adequately. The two buildings were designed for 822 students. To replace the fifty-year-old boarding-club principle, there was substituted a college operated food service unit under the direction of a professionally trained dietitian.

With the return of many veterans from the armed forces in 1945 a serious housing shortage grew from term to term. To supply the deficiency, Michigan State University in the fall of 1945 developed emergency, temporary and permanent

housing simultaneously. A pair of residences, Snyder-Phillips, was erected near Mason-Abbot Hall. These four dormitories housed 2,500 men students.

In 1949 Shaw Hall was completed for occupancy. Designed to house 1,000 it was crowded with 1,500 men students. Four years later construction was begun for the Brody Group which consisted of six residence halls for men and a central dining recreation center, which could accomodate three thousand students.

During the 1958-59 academic year residence hall food service and housing was provided for 7500 students.

Residence Hall Food Service Policies

Food procurement and production

Centralized purchasing by Food Stores provided quality food at economical prices. Subsistance supplies were purchased directly from Food Stores by each residence hall; consequently, exact amounts could be requisitioned and reasonable control insured.

Basic cycle selective menus were written a term in advance by the residence hall food service staff. The respective dietitians adapted the menus to the needs of each unit allowing for food on hand due to variance in choice, low meal attendance or inability to purchase required quantities of a specific item. The food service staff for each residence hall planned the soups, salads, vegetables and desserts which were most acceptable to that particular unit. Greater

flexibility and more personalized food service were achieved through this procedure.

Intelligent use of standardized recipes carefully tested for quantities or weights of ingredients, methods of combination and preparation, number and size of servings is essential for producing acceptable menu items. Each food service unit had a file of standardized recipes that had proven satisfactory for adequately serving the patrons in the hall.

Student labor

Michigan State University considers maximum utilization of student labor an adjunct of efficient food service. College administrators throughout the nation offer this type of assistance to as many students as possible. Augustine (1) listed two problems specific to student employees: working conditions must be adapted to special student requirements, and more labor hours are necessary because of short, interrupted working schedules and less efficient work. However, student labor cannot be judged solely on economic value to the institution. Unlike industry, the objective of college food service is service, not profit. Since the primary motive is to aid the student, labor in terms of cost and production is not the only factor to be considered. Three reasons for widespread acceptance of student labor at Michigan State University are: (1) student jobs can provide a convenient form of scholarship for students, (2) in many

instances student labor promotes good public relations, and (3) students are available for short work periods. However, student employees require more supervision and training than full time employees and since they are not willing to work during vacation and examination periods scheduling difficulties may ensue.

Michigan State University employs a large number of students throughout the campus. They are recruited by the various departments from the Placement Office or are hired directly by the department. Schedules of available time are filed in the office and students with hours open for cafeteria work are employed by the food service department. A permanent record of achievement on the job is kept in the Placement Office and serves as a recommendation for future employment.

Men students employed in residence halls for women must work approximately fifteen and one half hours a week to cover the cost of meals and they are required to eat in the building where they work. Male students are paid for time worked and charged the regular board rate for meals. Definite advantages to this meal job plan are that both parents and students like the idea of guaranteed meals, and students actually earn money for time worked and consequently do not resent necessary job overtime. Women students were recruited from the residents of the hall. Since university housing charges were part of the registration fees, these employees had paid the meal charge. Bi-weekly checks were issued to women student employees.

The minimum rate for University student employment was $.95 per hour. After completion of 100 work hours during one school term the student was granted an increase to $1.00 per hour upon rehiring for the second consecutive term in the same department. An increase to $1.05 per hour was given students for a second term of satisfactory work upon rehiring for the third consecutive term. The rate for all subsequent terms was the same, $1.05 per hour. Students with an unacceptable work record were not rehired.

Good work performance for student employees included:

a. Willing worker - ability to learn job, displays interest and enthusiasm toward job, takes pride in doing job.

b. Courteous - congenial and cooperative toward fellow employees, supervisors and public.

c. Willing to work during periods which the job demanded, including registration, midterm and final examination periods.

d. Punctuality - on time ready for work at the required time and remains until the job is finished.

e. Not more than three unexcused absences in any one term.

Mason-Abbot Hall Food Service

Physical plant and meal service

Mason-Abbot Residence Hall consisted of two buildings which were connected by a central food production unit. The

food preparation area included a central kitchen, a bake shop, pot and pan with dishwashing areas which are located on the main floor level. The dry food storage, frozen food storage, three walk-in refrigerators and the vegetable and salad preparation area were on the basement level directly below the kitchen. The receiving area on the main floor had a freight elevator for transporting food to and from the storage areas.

The rectangular main kitchen was situated centrally between the cafeteria counters for Mason and Abbot Halls. All meats, soups, vegetables, sauces, sandwiches and other main dish items were prepared in this kitchen. The well equipped bakeshop furnished breads, pastries, cakes, cookies, rolls, puddings and sweet rolls for the operation. Frozen, congealed and fruit desserts were also prepared in this area. The preparation of potatoes and other fresh vegetables for the kitchen, in addition to salad greens, garnishes, relishes, congealed salads and salad dressings for the pantry, was assigned to the vegetable and salad preparation room.

The service area consisted of two complete counters for each dining room. Normally one service line was in operation but both could be utilized to facilitate rapid service if necessary. A pantry with facilities for assembling and the refrigeration of salads and desserts and for the preparation of fruits and fruit juices was located adjacent to the serving counters. Butter, jellies, cereals, condiments, coffee, tea and other beverages were also prepared for the counter in the pantries.

The two dining rooms in Mason-Abbot Hall each contained forty three 6 chair tables with a total seating capacity of 516.

Cafeteria service was offered for each meal with the exception of Saturday and Sunday mornings when a continental breakfast was available in the residence grill.

A typical menu included soup, two entrees, two vegetables, muffins or bread, two salads, fruit juice, a low calorie and a regular dessert, coffee, tea and/or milk.

For the noon meal, students collected silver, trays, water and/or milk, proceeded down the cafeteria counter, selected the salad, bread, main dish, vegetable or soup, dessert and beverage desired. These items were carried to a table and removed from the tray. After the meal the soiled dishes were collected by bus boys, taken to a cart and transported to the dish room.

The period of cafeteria service for each meal was based on a span which permitted the greatest flexibility in conjunction with the scheduling of student classes in the college academic program. The distance between Mason-Abbot Hall and certain classroom buildings made it difficult for students to eat lunch during the noon meal period. Consequently, many students were granted special permission for a luncheon period before or after the regularly scheduled meal. In order to eliminate special noon meal schedules and extreme rush periods the Director of Residence Hall Food Service and the Manager of Mason-Abbot Hall in 1958 decided to extend

the lunch period from a one hour period, 11:30 a.m. to 12:30 p.m. to a three hour period, 10:30 a.m. to 1:30 p.m. Meal service periods for fall term 1958 and winter term 1959 follow:

Meal	Mason Cafeteria	Abbot Cafeteria
Breakfast	7:15 a.m. - 8:00 a.m.	7:15 a.m.- 8:00 a.m.
Luncheon		
Fall term	11:30 a.m. -12:30 p.m.	11:30 a.m.- 12:30 p.m.
Winter term	12:00 p.m. - 1:30 p.m.	10:30 a.m.- 12:30 p.m.
Dinner	5:15 p.m. - 6:15 p.m.	5:15 p.m.- 6:15 p.m.

Job descriptions

Job analysis is a method of investigating essentials of definite work assignments (12). Reports of job analysis are transferred to job descriptions which highlight the data for use in interviewing, training, scheduling and re-appraising the work of employees. Each job description gives detailed information regarding a specific job. Descriptions of all jobs in an organization present available information for work performance, duties, responsibilities and requirements of all employees. Overlapping of duties, duplication of effort, poor planning and management failures can be avoided by using adequately organized and easily interpretable job descriptions.

The job classifications for Mason-Abbot student employees during the lunch period were: food trucker, main dish server, soup or vegetable server, salad and roll server,

beverage and dessert server, busboys, dishroom helpers, hostess and door girl. Women students were scheduled for the cafeteria counter and the pantry. Occasionally they assisted in the kitchen or as bus girls. A door girl and hostess checked the names of students at the entrance of the dining room and controlled the flow of the cafeteria line. Men students worked as bus boys, food truckers and dishroom helpers. Job descriptions for the student employees at Mason-Abbot Hall appear in the Appendix Exhibits 2-8.

Comments on noon hour scheduling

During fall term of 1958 lunch was served in Mason and Abbot Halls simultaneously. Students were permitted to eat only in the dining room of the building in which they lived. Beginning winter term 1959 lunch was served in Abbot cafeteria from 10:30 a.m. to 12:30 p.m. and in Mason cafeteria from 12:00 noon to 1:30 p.m. Students from both buildings were permitted to eat in either dining room.

Scheduling the student employees for the extended lunch period was perhaps the most difficult and complicated task in the transition from fall to winter term luncheon meal service. Proper allocation of the required time for each student was a problem because class schedules were a major consideration. Only a limited number of students were available for work the first and last half hours of the extended lunch period.

Tables 3 and 4 (Appendix) summarize census and labor

hours for the noon meal service for the two periods of this study. Appendix Table 3 shows that an average of 668 noon meals was served daily during fall term 1958. Each luncheon required 2,179 student labor minutes or 35 labor hours for service. This figure is the equivalent of 3.25 minutes per resident per meal. An average of 606 noon meals was served daily during winter term 1959; each luncheon required 1,961 student labor minutes or 32 labor hours. Winter term cafeteria service averaged 3.22 minutes per resident per noon meal. See Appendix Table 4.

Appendix Tables 5 and 6 summarize census and labor cost of the noon meal service at Mason-Abbot Hall. Student labor cost expressed in cents per resident totaled $37.40 per day or $0.0557 for each of the 668 lunches served during fall term 1958. For serving an average of 606 meals daily during winter term 1959, the cost was $33.65 or $0.054 per person.

Per capita cost for fall term 1958 and winter term 1959 (Appendix Tables 5 and 6) varied from week to week, within a range of $0.0529 to $0.0597 for fall term and from $0.0526 to $0.0614 for winter term 1959. These differences may be attributed to the pay rate of student employees, absenteeism or temporary replacement of full time employees by students.

A comparison of customer count, labor hours and labor cost for the two periods of this study, fall term 1958 and winter term 1959 are shown in Table 1. These data clearly

indicate that efficient scheduling can give increased customer satisfaction for residence hall food service at no significant cost increase.

Table 1. Comparison of customer count, labor hours and labor cost for noon meal service at Mason-Abbot Residence Hall. (Fall term 1958 and Winter term 1959)

	Fall Term 1958	Winter Term 1959
Customer count average for one day	668	606
Customers per labor hours	$18.47	$18.55
Minutes of labor per person	3.25	3.22
Labor hours average for one day	36.33	32.68
Labor cost average for one day	37.40	33.65
Labor cost per customer	0.0557	0.0554
Labor cost per minute expended	0.0171	0.0161

Studies by August (1), Blaker (3) and Kirkpatrick (9) have reported that labor cost per resident increases as meal census decreases. These data included labor hours for both full-time and part-time employees in college and university food service units. For Mason-Abbot Hall, difference in per capita cost between fall term 1958 and winter term 1959 was less than a mill. No significant increase or decrease in student labor cost for each resident resulted from the extended lunch period. The minimal differences in cost per resident between fall term and winter for the noon meal service may be explained in part by the complete rescheduling of both full-time employees for the noon hour lunch period, and by the drastic reduction in the total time scheduled for both student and full-time labor payrolls.

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Table 1. Recapitulation of data for Mason-Abbot Residence Hall for fall term 1958. (September 29 to October 24, 1958)

Date	Census	Labor Minutes	Labor Payroll
Sept. 29	709	2,316	$40.34
30	703	2,388	40.82
Oct. 1	706	2,406	41.18
2	687	2.004	34.66
3	696	2.244	38.37
Partial Total	3,501	11,358	$195.37
Oct. 6	673	2,238	37.97
7	683	2,142	36.92
8	685	2,256	38.03
9	669	2,436	42.20
10	604	2,634	44.84
Partial Total	3,314	11,706	$199.96
Oct. 13	681	2,706	46.24
14	698	1,854	31.95
15	633	2,310	39.14
16	653	2,070	35.65
17	667	1,992	33.82
Partial Total	3,372	10,930	$186.80
Oct. 20	481	1,992	33.68
21	664	2,034	35.15
22	642	2,166	36.81
23	666	1,926	33.44
24	663	2,208	37.52
Partial Total	3,316	10,326	$177.30

Table 1. (Continued)

Date	Census	Labor Minutes	Labor Payroll
Oct. 27	588	2,856	$48.85
28	688	1,758	30.59
29	675	2,832	48.00
30	686	2,082	36.23
31	652	2,124	36.14
Partial Total	3,389	11,652	$199.61
Nov. 3	687	2,076	$35.34
4	697	1,992	34.42
5	662	2,190	37.21
6	659	2,106	36.64
7	655	2,208	37.44
Partial Total	3,360	10,572	$180.95
Nov. 10	689	2,286	38.79
11	669	2,280	39.60
12	636	2,124	35.96
13	692	1,944	33.58
14	673	1,974	33.84
Partial Total	3,359	10,608	$181.78
Nov. 17	630	1,848	$31.73
18	672	1,716	29.82
19	550	1,992	34.48
20	652	2,400	40.29
21	629	1,980	33.57
Partial Total	3,133	9,936	$170.81

Table 2. Recapitulation of data for Mason-Abbot Residence Hall for winter term 1959. (January 12 - February 6, 1959)

Date	Census	Labor Minutes	Labor Payroll
Jan. 12	618	2,010	$34.60
13	610	1,914	32.45
14	623	1,718	30.27
15	627	1,752	29.97
16	396	2,088	35.74
Partial Total	2,874	9,482	$163.03
Jan. 19	628	1,986	34.17
20	624	1,884	31.70
21	567	2,082	34.70
22	600	2,042	35.23
23	610	2,024	35.52
Partial Total	3,029	10,018	$173.02
Jan. 26	584	2,082	34.22
27	609	1,680	28.38
28	610	1,938	32.76
29	613	2,034	34.34
30	583	2,262	38.47
Partial Total	2,999	9,996	$170.28
Feb. 2	666	1,848	31.40
3	615	1,848	31.29
4	586	1,986	34.09
5	561	1,890	32.88
6	558	1,994	34.48
Partial Total	3,086	9,688	$167.94

Table 2. (Continued)

Date	Census	Labor Minutes	Labor Payroll
Feb. 9	610	1,998	$34.08
10	603	1,952	29.61
11	584	2,028	34.62
12	599	2,100	35.93
13	594	1,860	31.56
Partial Total	2,990	9,938	$165.80
Feb. 16	611	2,142	36.53
17	601	1,908	32.16
18	610	1,806	31.02
19	615	1,824	31.18
20	678	1,958	34.21
Partial Total	3,015	9,518	$165.10
Feb. 23	587	2,102	36.88
24	626	2,796	48.74
25	603	1,980	33.83
26	594	1,704	28.86
27	597	2,070	35.17
Partial Total	3,037	10,652	$184.48
March 2	614	1,500	25.61
3	607	1,770	29.81
4	591	1,902	32.78
5	603	1,934	33.89
6	574	2,040	35.26
Partial Total	2,989	9,146	$157.35

Table 3. Census and student labor time for noon meal service by weeks. Mason-Abbot Residence Hall (September 29 - November 21, 1958)

Week	Meal census	Student labor minutes Total	Per Capita
Sept. 29 - Oct. 3	3,501	11,316	3.23
Oct. 6 - Oct. 10	3,314	11,800	3.56
Oct. 13 - Oct. 17	3,372	10,963	3.25
Oct. 20 - Oct. 24	3,316	10,308	3.10
Oct. 27 - Oct. 31	3,389	11,652	3.43
Nov. 3 - Nov. 7	3,360	10,572	3.14
Nov. 10 - Nov. 14	3,359	10,608	3.15
Nov. 17 - Nov. 21	3,133	9,946	3.17
Total	26,744	87,170	
Weekly Average	3,343	10,896	
Daily Average	668	2,179	3.25

Table 4. Census and student labor time for noon meal service by weeks. Mason-Abbot Residence Hall (January 12 - March 6, 1959).

Week	Meal census	Student labor minutes Total	Per Capita
Jan. 12 - Jan. 16	3,085	9,482	3.07
Jan. 19 - Jan. 23	3,029	10,018	3.30
Jan. 26 - Jan. 30	2,999	9,996	3.33
Feb. 2 - Feb. 6	3.086	9,688	3.13
Feb. 9 - Feb. 13	3,010	9,938	3.30
Feb. 16 - Feb. 20	3,015	9,518	3.15
Feb. 23 - Feb. 27	3,037	10,672	3.51
Mar. 2 - Mar. 6	2,989	9,146	3.02
Total	24,250	78,458	
Weekly Average	3,031	9,807	
Daily Average	606	1,961	3.22

Table 5. Census and student labor cost for noon meal service by weeks. Mason-Abbot Residence Hall (September 29 - November 21, 1958).

Week	Meal census	Student labor cost Total	Per Capita
Sept. 29 - Oct. 3	3,501	$202.07	$.0574
Oct. 6 - Oct. 10	3,314	197.88	.0597
Oct. 13 - Oct. 17	3,372	186.30	.0552
Oct. 20 - Oct. 24	3,316	176.62	.0529
Oct. 27 - Oct. 31	3,389	199.61	.0588
Nov. 3 - Nov. 7	3,360	180.95	.0538
Nov. 10 - Nov. 14	3,359	181.78	.0540
Nov. 17 - Nov. 21	3,133	170.81	.0545
Total	26,744	1,496.02	
Weekly Average	3,343	187.00	
Daily Average	668	37.40	.0557

Table 6. Census and student labor cost for noon meal service by weeks. Mason-Abbot Residence Hall (January 12 - March 6, 1959).

Week	Meal census	Student labor cost Total	Per Capita
Jan. 12 - Jan. 16	3,085	$163.03	$.0528
Jan. 19 - Jan. 23	3.029	173.02	.0571
Jan. 26 - Jan. 30	2,999	170.28	.0567
Feb. 2 - Feb. 6	3,086	164.94	.0534
Feb. 9 - Feb. 13	3,010	165.80	.0550
Feb. 16 - Feb. 20	3.015	165.10	.0547
Feb. 23 - Feb. 27	3.037	186.48	.0614
Mar. 2 - Mar. 6	2,989	157.35	.0526
Total	24,250	1,346.00	
Weekly Average	3.031	168.25	
Daily Average	606	33.65	.0554

Name	Hours	Rate	Total Wages
D. Dale	1.7	$1.05	$1.78
J. Robbins	1.7	1.00	1.70
K. Burg	1.3	.95	1.23
V. Jackson	2.4	1.05	2.52
S. Hoffman	2.4	1.25	3.00
D. Jewel	4.6	1.10	5.06
B. Lepley	6.0	1.05	6.30
J. Olsen	1.3	.95	1.23
D. Bendixson	2.4	1.05	2.52
J. Richardson	1.9	1.10	2.09
J. Grindstead	1.0	1.05	1.04
B. Yascolt	1.4	1.00	1.40
B. Benedick	1.4	1.05	1.47
S. Feldburg	1.9	.95	1.80
H. Horrom	1.3	1.00	1.30
H. Holmes	1.4	1.00	1.40
H. Reavenly	1.5	1.05	1.57
C. Koenig	1.6	.95	1.52
M. Safie	1.4	1.00	1.40
Total	38.6		$40.34

Exhibit 1. Worksheet for student employee payroll. Mason-Abbot Residence Hall. (September 29, 1958).

Food Trucker
(Wear a clean bus coat and apron)

Before line opens

1. Check milk dispenser
   a. Mechanism in working order.
   b. Two full cans of whole milk in the whole milk dispenser.
   c. Two full cans of skim milk in the skim milk dispenser.

2. Set up steam table.
   a. Turn on water and steam in steam table.
   b. Bring food from kitchen, bakery and ice cream cabinet.
   c. Arrange lowerators containing luncheon plates, bread and butter plates, soup bowls, glasses, cups and saucers at the required counter stations.
   d. Place tray and silver cart at the entrance to the serving counter.

During the meal

1. Keep a continual check on the steam table for need of food or other supplies.
   a. Replenish cafeteria line, when food gets low, from the kitchen, bakery or ice cream cabinet.
   b. Keep an ample supply of plates, soup bowls, glasses, bread and butter plates, cups and saucers.

2. Refill or change gauge on milk dispenser when needed.

3. Keep shelves in back of counter clear of trays and other articles.

After line closes

1. Return food to kitchen.
   a. Take left-over food to the kitchen, bakery, or ice cream cabinet.
   b. Supplies from the pantry can be taken to the refrigerators or store room.

2. Clean up.
   a. Clean milk dispenser and refill with full cans of milk.
   b. Empty garbage can and return it to the pantry.
   c. Take boxes, cans and bottles from the pantry to the trash containers on the back dock.

Exhibit 2. Job description for food trucker.

Main dish Server
(Wear a clean uniform and hairnet)

Before line opens

1. Get serving utensils.
   a. Secure serving utensils suitable for the food to be served.

2. Have a checker for counting the customers available.

3. Check to make sure dish lowerators are in the proper place.

During the meal

1. Serve the customers.

2. Count each customer.

After the meal

1. Take serving utensils to the pantry sink.

2. Help clean the steam table.
   a. Inside of steam table, covers and top must be cleaned and polished.
   b. Clean glass shelves and front of counter.

3. Help fill and wipe napkin holders, salt, pepper, and sugar shakers.

Exhibit 3. Job description for main dish server.

Vegetable or soup Server
(Wear a clean uniform and a hairnet)

Before line opens

1. Get serving utensils.
   a. Secure serving utensils suitable for the food to be served.

2. Check to see if appropriate dishes are at the proper stations.

During the meal

1. Serve the customers.

After line closes

1. Take serving utensils to pantry sink to be washed.

2. Help clean steam table.
   a. Inside of steam table, covers and top must be cleaned and polished.

3. Help fill and wipe napkin holders, salt, pepper, and sugar shakers.

Exhibit 4. Job description for vegetable or soup server.

Salad and Bread Girl
(Wear a clean uniform and hairnet)

Before line opens

1. Place salads, salad dressings and fruit juice on the counter.
    a. Arrange salads attractively on the salad bar.
    b. Twenty-five to thirty salads can be placed on the counter, with some from each available choice.
    c. Two containers of each salad dressing must be placed near the salads.
    d. A tray of fruit juice is placed on the counter between the salads and the bread.

2. Set up the roll serving station.
    a. Get a cold container of butter from the refrigerator in the pantry.
    b. A lowerator with bread and butter plates must be placed at the roll serving station.
    c. One pair of tongs is required for serving the rolls another pair is needed to serve the butter.

During the meal

1. Keep the counter replinished with salads, salad dressings and fruit juice from the pantry refrigerator.
    a. When supplies are getting low, notify the salad maker.

2. Keep the counter around the salad area clean
    a. Clean up any spilled dressing and juice from the counter as quickly as possible.
    b. Notify the food trucker of any spills on the floor.

3. Serve the rolls and butter.

After the line closes

1. Clear the counter of salads, salad dressings and fruit juice.
    a. Place left over salads in the refrigerator.
    b. Take salad dressings to the pantry.
    c. Pour any remaining fruit juice into a glass jar and place in the refrigerator.

2. Clean salad and roll areas of the counter.
    a. Clean the counter on the service as well as on customer side.
    b. Wipe and polish the rail along the counter.

3. Refill butter dishes and place in the refrigerator for the next meal.

Exhibit 5. Job description for salad and bread girl.

Beverage and Dessert Girl
(Wear a clean uniform and hairnet)

Before line opens

1. See that a cup and saucer lowerator is placed at the beverage station.

2. Get coffee cream from the pantry refrigerator.
   a. Place a saucer under the cream pitcher.

3. Make sure there are tea bags available.

4. Check for ice and glasses if iced beverages are served.

5. Arrange desserts on the counter attractively.

During the meal

1. Serve the beverages.

2. Replenish counter with desserts.

After line closes

1. Put any left over cream into a container in the refrigerator.

2. Any remaining desserts are taken to the pantry.

3. Clean the coffee urn.
   a. Draw a gallon of coffee into a container provided for that purpose.
   b. Wash inside of urn with brush and hot water.
   c. Leave clear water in the clean urn.
   d. Clean outside of urns and drains.

4. Refill water urn with water for the next meal.

5. Clean beverage and dessert counter, front and back.

6. Clean water fountains.

Exhibit 6. Job description for beverage and dessert girl.

Bus Boys
(Wear a clean bus coat)

Before line opens

Bus boys do not clock in before the line opens.

During the meal

1. Carry trays for female guest and housemothers.
   a. Take tray with food to a table for the guest.
   b. Remove silver, water and food from the tray and arrange in the proper order.
   c. Refill coffee cups for guest.

2. Bus dishes from unoccupied tables.
   a. Stack dishes as quietly as possible.
   b. Remove china, glasses and silver from the tables in separate trays.
   c. Take trays of soiled dishes to the cart provided for this purpose.
   d. Trays from the tray racks should be taken to the cart often.

3. Wipe tables after removing dishes.
   a. A clean cloth wrung from water to which one fourth cup of ammonia has been added, is needed for wiping the tables.
   b. Crumbs can be brushed onto a plate or tray and not onto the floor or chairs.

After line closes

1. Arrange salts, peppers, sugars and napkin holders on the clean tables.
   a. These items should be placed on the tables so that a straight line down the length of the room is obtained.

2. Sweep the floor and mop up any spilled food from the floor.

3. Arrange six chairs at each table.

Exhibit 7. Job description for bus boys.

Dish Room Helpers
(Wear bus coat and plastic apron)

Before line opens

Dish room helpers do not clock in before the line opens.

During the meal

1. Place a cart for soiled dishes near the entrance to the dining room.

2. Take truck of soiled dishes to the dishroom.
   a. Dishes must be taken to the dishroom often to avoid holding up the dishroom crew.

3. Wash dishes.
   a. Wear clean gloves for handling clean dishes.
   b. Place proper size dishes in the correct lowerators.

After line closes

1. Carry dish lowerators, glasses, silver and tray carts to the correct stations in both cafeterias.

2. Clean dish machine after dishes are washed.

Exhibit 8. Job description for dish room helpers.

SCHOOL OF HOME ECONOMICS
MICHIGAN STATE COLLEGE
EAST LANSING, MICHIGAN

Problem M.S. 1959

Hubbard, Vivian Eloise
Labor Hours and Labor Cost for
Two Types of Noon Hour Scheduling
in a College Residence Hall
Cafeteria

Hubbard, Vivian Eloise

Labor Hours and Labor Cost for Two
M.S. 1959 HNF

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