A study of institutions needs for patient labor.

MEMORANDUM

STATE OF MINNESOTA .
DEPARTMENT OF PUBLIC WELFARE . Medical Services Division

TO: Librarian
St. Paul Public Library

FROM: Richard Bartman, M.D., Director
Children's Mental Health Services

Ardo M. Wrobel, Consultant
Rehabilitation Therapies

SUBJECT: A Study of Institutions' Needs for Patient Labor

A study of patient labor in the four institutions for the mentally retarded has recently been completed. This study provides basic information which will assist us to make decisions as to what should be done to improve institution treatment and training programs and to determine whether such changes will affectthe cost of operating the institutions.

The study shows that of the 6,344 patients in Minnesota State institutions for the mentally retarded, 2,716 are assigned to jobs. If they were replaced by employees, it would require 924½ new positions at an annual cost of $2,435,652.00.

Modern treatment and training programs in institutions for the mentally retarded have increased the expectancy that many mentally retarded persons will be returned to normal lives in their communities and homes. This, in effect, means that institutions for the mentally retarded are now treatment centers in which a combination of training and treatment helps prepare patients to cope with the problems of living at home and in the community.

Professional staff responsible for planning and implementing such specialized programs now have information needed to come to grips with such basic questions as: Do the institutions rely too heavily on patient labor? Should patients be partially paid for the productive work they do? Could such payment become a realistic means of teaching patients the value of money, how to handle it, and how to buy such things as cosmetics and clothing? Should additional employees be hired to supervise and teach patients how to work? Should there be a greater variety of work training opportunities? Information available now as a result of this study may make it possible to effect some changes and propose others.

The study was accomplished through the efforts of a committee appointed by Dr. Richard Bartman and Mr. Ardo Wrobel of the Department of Public Welfare's Medical Services staff. The committee was composed of Mr. H. W. Peterson, Administrator, and Mr. John Maher, Industrial Therapist of the Brainerd State School and Hospital; Mr. George Boswell, Director, Rehabilitation Therapies, Cambridge State School and Hospital; Mr. Melville Krafve, Assistant Superintendent, and Mr. Raymond Roach, Director Rehabilitation Therapies, Faribault State School and Hospital; and Mr. Edward Foss, Business Manager, Owatonna State School.

Results of the study, which was begun in September 1962, show that over 40 per cent of all patients residing in institutions for the mentally retarded are assigned to some type of organized productive work. At the Brainerd State School and Hospital 370 patients do 37 per cent of all the work in the institution. It would take approximately 139 new positions to replace the work patients are doing at a minimum cost of $379,140.00 per year.

At the Cambridge State School and Hospital, 763 patients are doing 27 per cent of all work of the institution. It would take 207¼ new positions to replace their work at a cost of $542,890.00 per year.

At the Faribault State School and Hospital, 1,432 patients do 43 per cent of all institutional work. It would take 543½ new positions to replace their work at a minimum cost of $1,407,462.00 per year.

At the Owatonna State School, 151 students do 18 per cent of the work of the institution and it would take 35 new positions to replace the work they are doing at a cost of $105,888.00 per year.

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Report of the Medical Services Division's

Study Committee of Patient Work in Institutions

for Mentally Retarded

A STUDY OF INSTITUTIONS NEEDS FOR PATIENT LABOR

64-NPL-DPW

State of Minnesota.
Department of Public Welfare.
Medical Services Division

February 1964

A committee was appointed in November 1962 to study the actual contribution of patient labor to institutional operation and to estimate the additional Civil Service positions that would be necessary to relieve the current burden carried by patients in Minnesota's institutions for the mentally retarded.

MINNESOTA DEPARTMENT OF PUBLIC WELFARE
Medical Services Division

ACKNOWLEDGMENT

The committee wishes to thank the numerous sub-committees and individual staff members and department heads for their invaluable contribution in gathering the necessary information for this study. Such cooperation exemplifies their dedication to the patients welfare and their interests in improving treatment programs.

CONTENTS

INTRODUCTION

Institutions for retarded persons have traditionally been staffed on the assumption that a significant amount of work vital to the function of critical areas such as laundry and kitchens will be done by patients. Because of relatively recent changes in social attitudes leading toward increased community acceptance of retarded persons, the number of such patients in these institutions who are able to do these tasks is diminishing. This has increased the work load on some patients to the point where their placement in the community may be delayed. With the increased work loads on some patients, work supervisors are not able to completely train patients in these areas; also participation in treatment programs and an opportunity for varied work experiences is limited.

The extent of this problem has not, however, been clearly defined. In order to learn the actual contribution of patient labor to institutional operation and to estimate the additional Civil Service positions, and modern equipment that would be needed to relieve the current burden carried by patients, an ad hoc committee was appointed. Members of the committee were drawn from each state institution for the retarded, and included representative from administration, business services, and rehabilitation therapies.

The first study, reported in Chapter I, was accomplished in all state institutions for the mentally retarded by the respective staffs in order to determine the number of Civil Service positions that would be needed to replace all working patients.

The committee recognized that the first study at best represented educated guesses. After reviewing the first study, it was therefore decided to conduct certain substudies to verify the results in more detail. These additional studies are reported in Chapter II.

Results of comparisons between Chapter I and Chapter II are presented in Chapter III. In most areas the figures did not appreciably change, except for estimates related to the nursing services. Changes in the nursing services estimates were due primarily to determination that a fictitious position of nursing assistant (at $200 per month salary) more accurately reflected the actual work done by patients in the nursing services.

THE COMMITTEE

Richard E. Bartman, M.D., Chairman
Director of Children's Mental Health Services
Medical Services Division

Ardo M. Wrobel, Co-chairman
Consultant, Rehabilitation Therapies
Medical Services Division

Harold W. Peterson, Administrator
Brainerd State School and Hospital

George Boswell, Director
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Cambridge State School and Hospital

Melville Krafve, Assistant Superintendent
Faribault State School and Hospital

John Maher, Industrial Therapist
Rehabilitation Therapies
Brainerd State School and Hospital

Raymond C. Roach, Director
Rehabilitation Therapies
Faribault State School and Hospital

Edward Foss, Business Manager
Owatonna State School

Chapter I

It was assumed by the committee that the heads of departments employing patient labor would be in the best position to estimate the number of Civil Service positions that would be needed to replace patient labor. Recognizing that such estimates have an inherent margin of error, it was, nevertheless, felt that this method would be similar to one that would be used in the event that patients were actually to be replaced. These estimates were presented to the administrators and other selected staff members for opinions regarding accuracy.

It should be noted that the individual patient's production efficiency was not studied, nor were estimates made based on individual patient production. Rather, replacement estimates were made based on department wide considerations.

It was further agreed by the committee that all salary estimates for various types of Civil Service classes would be based entirely on the minimum entrance salary assigned to that class during the 1961-62 biennium. These are, therefore, conservative estimates inasmuch as other costs were not estimated such as social security contributions, merit increases, vacation replacement, and unemployment insurance contributions.

COPY OF MEMORANDUM SENT

August 13, 1962

TO: Superintendents at:

Owatonna State School
Faribault State School & Hospital
Cambridge State School & Hospital
Brainerd State School & Hospital

FROM: Dr. Richard Bartman, Director
Children's Mental Health Services

SUBJECT: Institutions Industrial Programs

1) The committee appointed by Ardo Wrobel to develop the ground rules, objectives, and procedures of the institutions industrial programs met on 8 August 1962 in the Central Office. It is agreed that, in order to accomplish the goals of the project, each institution, with the help of the committee members, should proceed step by step to get the information necessary to "establish all jobs done by patients on the basis of full time positions comparable to Civil Service classifications."

2) It is requested that all department heads using patient labor in the institution determine, with the help of the personnel office and industrial therapist, the number of full time Civil Service positions that would be needed to continue operation without the patients. In addition, these positions should be identified by Civil Service class title.

   a. It is suggested that the department head, industrial therapist and personnel office make the final determination with the superintendent or assistant superintendent even though they may need to rely on other employees to assist.

   b. It is understood that there is a difference between what a department "should have" to operate this service and what is being "accomplished now" with patient labor. Determination should be made on the basis of positions added to "maintain present levels of production and service."

3) Suggested format of information:

DEPARTMENT	PRESENT EMPLOYEES	PRESENT PATIENTS	CIVIL SERVICE POSITIONS NEEDED WITHOUT PATIENTS	CIVIL SERVICE CLASS TITLES AND NUMBER OF EACH

DETAILED PRELIMINARY ESTIMATES OF THE NUMBER OF CIVIL SERVICE POSITIONS NEEDED TO REPLACE PATIENT LABOR

Cambridge State School and Hospital

Department Services	Pres. no. of employees	Employee CS classification	No. pts. working	Add. CS pos. needed	CS class of pts. jobs
rber & auticians	1 2	Barber	3	1	Barber
etary	1	Dietician II	106	1	Baker I
	1	Cook IV		3	Cook I
	4	Cook III		32	Custodial Wkr
	6	Cook II			
	3	Custodial Wkr I			
	12	Food Svc Superv			
	1	Meat Cutter			
	1	Baker II			
	1	Baker I			
	2	Truck Drivers			
	12	Cook I			
usekeeping	11	Custodial Wkr I	38	16 1/2	Custodial Wkr I
	5	Seamstress		4	Seamstress
	1	Janitor			
b & Dental	2	Dentist	4	1	Custodial Wkr
	1	Dent. Asst		1	Clerk Typ I
	1	Med Tech			
	1	X-Ray Tech			
	1	EEG Tech			
	1	Lab Tech			
aundry	1	Laundry Mgr	47	2	Laundry Superv I
	4	Laundry Superv I		22	Laundry Wkr
	2	Laundry Superv II			
	7	Laundry Wkr			
	1	Truck Driver			
ursing	56	Psych Aide II	544	108	Custodial Wkr I
	311	Psych Aide I		69	Hosp Aide

Cambridge State School and Hospital

Department Services	Pres. no. of employees	Employee CS classification	No. pts. working	Add. CS Pos. needed	CS class of pts. jobs
Rehab Therapies	12	Spec Teacher	16 1/2	5	Pt Act Asst I
	11	Pt Act Assist			
	1	Occ Therapist I			
	1	Librarian			
Volunteer Svc	1	Vol. Coord	3	1 1/2	Clerks
	1/2	Clerk			
Supply	1	Stores Clerk III	4	2	Custodial Wkr
	1	Stores Clerk II			
	1	Stores Clerk I			
	1	Custodial Wkr			
Shoe Shop	1	Shoemaker	3	1 1/2	Shoemaker
Maintenance	1	Bldg Foreman II	25	7	Laborer I
	2	Groundsman I			
	2	Carpenter			
	3	Painter			
	1	Mason			
	2	Laborer II			
Totals	495 1/2		793 1/2	277 1/2	

Institution-wide estimates by Civil Service class title:

	No. new pos. needed	Cost per pos. 1st year	1. Cost per CS class
Custodial Worker I	159 1/2	$2664	$ 424,908.00
Cook I	3	2880	8,640.00
Baker I	1	3648	3,648.00
Hospital Aide	69	3000	207,000.00
Seamstress	4	3000	12,000.00
Clerk Typist I	2 1/2	2772	6,930.00
Barber	1	3240	3,240.00
Shoemaker	1 1/2	3664	5,496.00
Patient Activities Asst I	5	3240	16,200.00
Laundry Supervisor I	2	3240	6,480.00
Laundry Worker	22	2664	58,608.00
Laborer I	7	3120	21,840.00
Totals	277 1/2		$ 774,990.00

Cambridge State School and Hospital

1. Estimate beginning salary range of current salary plan (1961-63)

Preliminary estimates: it would take 277 1/2 new Civil Service positions to replace the 793 1/2 patients working, at minimum cost of $774,990.00 per year.

DETAILED PRELIMINARY ESTIMATES OF THE NUMBER OF CIVIL SERVICE POSITIONS NEEDED TO REPLACE PATIENT LABOR

Owatonna State School

Department Services	Pres. no. of employees	Employee CS classification	No. pts. working	Add. CS pos. needed	CS class of pts. jobs
School janitor	1	Custodial Wkr I	11	1	Custodial Wkr
Adm Bldg Janitor	1	Custodial Wkr I	4	1	Custodial Wkr I
Storeroom	1	Stores Clerk I	3	1	Stores Clk I
Central Linen & Sewing room	1				
Main kitchen	5	Cust Worker I	5	3	Cust Wkr I
Veg preparation	1	Custodial Wkr I	4	3	Cust Wkr I
Bakery	1	Baker I	4	1 1/2	Baker I & C Wkr
Meat room	1	Custodial Wkr I	2	1/2	Cust Wkr I
Child Dining Rm	3	Food Svc Superv	17	8	Food Svc Superv
Empl Dining Rm	1	Food Svc Superv	12	4	Food Svc Superv
C16 Kitch & Dn Rm	1 1/2	Food Svc Superv	11	4	Food Svc Superv
C17 Ktn & Dn Rm	1 1/2	Food Svc Superv	11	4	Food Svc Superv
Dairy Barn	3	Farmer I	21	1	Farmer I
Groundsman & Gdn	2	Farmer I	8	2	Farmer I
Farm	3		6	0	
Maintenance	16		22	0	
Totals	43		141	34	

Institution-wide estimates by Civil Service class title:

	No. new pos. needed	Cost per pos. 1st year	Cost per CS class
Custodial Wkr	10	$2664	$ 26,640.00
Stores clerk	1	3120	3,120.00
Baker I	1	3792	3,792.00
Food Service Supervisor	20	3120	62,400.00
Farmer I	3	3372	10,116.00
Totals	35		$ 106,068.00

Preliminary estimates: it would take 34 new CS positions to replace the 141 residents (patients) working, at a minimum cost of $106,068.00 per year.

DETAILED PRELIMINARY ESTIMATES OF THE NUMBER OF CIVIL SERVICE POSITIONS NEEDED TO REPLACE PATIENT LABOR

Brainerd State School and Hospital

Department Services	Pres. no. of employees	Employee CS classification	No. pts. working	Add. CS pos. needed	CS class of pts. jobs
Dietary	2	Cook I	5	2	Cook I
	2	Custodial Wkr	12	5	Cust Wkr I
			2	1	Meat Cutter
	1	Baker I	3	1	Baker I
	1	Cook II	63	41	Cust Wkr I (cafeterias)
	2	Cook III			
	1	Cook IV			
	1	Butcher			
	17	Food Svc Superv			
Laundry				3	Laundry Superv II
	3	Laundry Superv I	9	3	Laundry Superv I
	3	Laundry Wkr I	34	23	Laundry Wkr
	1	Laundry Mgr			
Housekeeping	1	Exec Hwskpr	1	1/2	Clerk I
	1	Hwskpr	13	3	Seamstress
	10	Custodial Wkr I	64	33	Cust Wkr I
	8	Janitors			
Nursing Service	1	Reg Nurse V			
	1	Reg Nurse IV			
	3	Reg Nurse III			
	3	Reg Nurse II			
	4	Reg Nurse I			
	14	Psych Aide II			
	95	Psych Aide I			
	12	Psych Aide Trainee			
			140	71	Cust Wkr I
Rehab Therapies	1	Pt Prog Superv I			
	2	Special Teachers			
	4	Pt Activities Asst	6	2	Pt. Act. Assist
			1	1/2	Clerk I
			2	1 1/2	Cosmetic Therapist
			9	4 1/2	Cust Wkr I

Brainerd State School and Hospital

Department Services	Pres. no. of employees	Employee CS classification	No. pts. working	Add. CS pos. needed	CS class of pts. jobs
Engineer & Maintenance	1	Plant Maint Superv			
	1	Assist Ch Eng.			
	4	Firing Eng.			
	1	Electrician			
	1	Plumber			
	2	Maint. Eng.			
	1	Groundsman			
			7	3	Cust Wkr I
Totals	205		371	198	

Institution-wide estimates by Civil Service class title:

	No. new pos. needed	Cost per pos. 1st year	Cost per CS class
Cook I	2	$2880	$ 5,760.00
Custodial Worker I	157 1/2	2664	419,580.00
Meat Cutter	1	3948	3,948.00
Baker I	1	3792	3,792.00
Laundry Supervisor II	3	3648	10,944.00
Laundry Supervisor I	3	3240	9,720.00
Laundry Worker	23	2880	66,240.00
Clerk I	1	2772	2,772.00
Seamstress	3	3320	9,360.00
Patient Activities Assist I	2	3240	6,480.00
Cosmetic Therapist	1 1/2	3648	5,472.00
Totals	198		$ 544,068.00

Preliminary estimates: it would take 198 new Civil Service positions to replace the 371 patients now working at a minimum cost of $544,068.00 per year.

DETAILED PRELIMINARY ESTIMATES OF THE NUMBER OF CIVIL SERVICE POSITIONS NEEDED TO REPLACE PATIENT LABOR

Faribault State School and Hospital

Department Services	Pres. no. of employees	Employee CS classification	No. pts. working	Add. CS pos. needed	CS class of pts. jobs
Laundry					
Sort Soiled Clo.	1 1/2	Ldry. Suprv. I	22	6	Ldry Wkrs
Wash & Extractor	1	Ldry. Supvr. II	7		
	1	Ldry. Supvr. I			
	2	Ldry. Worker		1	Ldry. Wkr
Dry Tumbler	1	Ldry. Worker	3	1	Ldry. Wkr
Press & Ironing	1/2	Ldry. Supvr. II	17		
	1	Ldry. Supvr. I			
	6	Ldry. Workers		9	Ldry. Wkrs
Flatwork, shakeout	1/2	Ldry. Supvr. II	15		
& spreader	1	Ldry. Supvr. I			
	6	Ldry. Workers		6	Ldry. Wkrs
Fold, sort, dispatch-	1/2	Ldry. Supvr. II	20		
ing, rough dry	1	Ldry. Worker		3	Ldry. Wkrs.
Fold, sort, store	1/2	Ldry. Supvr. II	14		
dispatching	1 1/2	Ldry. Supvr. I		4	Ldry. Wkrs
	1	Ldry. Worker		2	Cust Wkr I
Laundry Truck I	1	Truck Driver	4	2	Laborers
Laundry Truck II	1	Truck Driver	3	1	Laborer
Mattress Shop	1	Mattress Maker	5	2	Laborer I
Housekeeping					
Tailor Shop	1	Tailor Shop Foreman	13	10	Seamstress
	1	Seamstress		1/2	Cust Wkr
Janitorial Svc:					
Rogers Mem. Ctr.	1	Janitor	4	1 1/2	Janitor
	1	Custodial Wkr			
Admin. Bldg.	1	Custodial Wkr.	3	1 1/2	Janitor
Women's Bldg.	1	Housekeeper I	2		
Grounds Department					
Trash Truck	0			1	Truck Driver
Grounds	1	Groundsman I	12	2	Groundsman I
	3	Truck Drivers			
Greenhouse	1	Florist	4		
Construction	1	Gen. Repair Man	0		
Construction	3	Sheet Metal Wkrs.	1		
Construction	1	Painter Foreman			
	5	Painters	5	2	Painters
				2	Add. Painters (with equipment & methods)

Faribault State School and Hospital

Department Services	Pres. no. of employees	Employee CS classification	No. pts. working	Add. CS pos. needed	CS class of pts. jobs
Grounds Department (continued)					
	2	Masons	1	1	Laborer I
	1	Cabinet Maker	2	1	Cab. Mkr
	4	Carpenters	2	1	Carpenter
Power Plant	1	Electrician I	2		
	6	Steam Engineers	1		
	3	Maint. Eng.	1		
	1	Maintenance Eng. (Machine Shop)	1		
	1	Plumber			
	2	Plant Maint Eng Helper			
Farm					
Garden	1 1/2	Farmer I	27	4	Farmer I
Piggery	1 1/2	Farmer I	14	2 1/2	Farmer I
Farm (general)	6	Farmer I	17	3	Farmer I
Dairy	1	Herdsman I	21	3	Farmer I
	2	Farmer I			
	1	Custodial Wkr. I			
Kitchen					
Main Kitchen	3	Cook III	14		
	11	Cook II			
				6	Cook I
Pasteurizer	1	Pasteurizer	3	1	Cust Wkr I
Food Deliv. Undergr.	2	Custodial Wkr. I	6		
Wash Room	1	Custodial Wkr. I	5	2	Cust Wkr I
Bakery	1	Baker II			
	2	Baker I	10	2	Baker I
				2	Cust Wkr I
Vegetable Rm	1	Cook I	35	5	Cust Wkr I
Food Truck	2	Truck Driver	5	3	Laborers
Garbage Truck	1	Truck Driver	4	1	Laborer
Food Service					
Springdale	1	Food Serv. Supvr.	12		
	1/4	Psych Aide I		1	Cust Wkr I
Maple	1 1/2	Food Serv. Supvr.	9		
Hickory	1	Food Serv. Supvr.	7	1	Cust Wkr I
Osage	1 1/2	Food Serv. Supvr.	8	2	Cust Wkr I
Elm	1	Food Serv. Supvr.	9	1	Cust Wkr I
Employees Cafe	3	Food Serv. Supvr.	7	3	Cust Wkr I
Willow	1 1/2	Food Serv. Supvr.	10	1	Cust Wkr I
Birch	1 1/2	Food Serv. Supvr.	7		
Spruce	1 1/2	Food Serv. Supvr.	8		
Pine	1 1/2	Food Serv. Supvr.	8		

Faribault State School and Hospital

Department Services	Pres. no. of employees	Employee CS classification	No. pts. working	Add. CS pos. needed	CS class of pts. jobs
Food Service (continued)					
Dakota	1 1/2	Food Serv. Supvr.	10		
				2	Cust Wkr I
Seneca	1 1/2	Food Serv. Supvr.	10		
Cedar	1 1/2	Food Serv. Supvr.	7		
Chippewa Cafe	3	Food Serv. Supvr.	28		
	2	Custodial Wkr. I		6	Cust Wkr I
Ivy Cafe	3	Food Serv. Supvr.	18		
				6	Cust Wkr I
Poppy	1	Food Serv. Supvr.	13	1	Cust Wkr I
				1/2	Food Serv. Supvr.
Fern	1	Food Serv. Supvr.	20	1/2	Food Serv. Supvr.
				1	Cust Wkr I
Hospital	1	Cook II	7	3	Food Serv. Supvr.
	3	Cook I		1	Cust Wkr I
Haven Cafe	1	Food Serv. Supvr.	9 1/2	1/2	Food Serv. Supvr.
	1 1/4	Cust Wkr I		1 3/4	Cust Wkr I
Holly	1	Food Serv. Supvr.	8	1/2	Food Serv. Supvr.
Hospital					
1st Flr. Wrd.	2 1/4	Reg Nurse II			
area	13 1/2	Psych Aides	6	1	Psych Aide I
	1	Custodial Wkr		1 1/2	Cust Wkr I
1st Flr Office	1	Reg Nurse IV			
	1	Reg Nurse III	1		
	2 1/2	Reg Nurse II			
2nd Floor					
2 Wrd Areas	13 1/2	Psych Aide I	6	1	Psy Aide I
2 Clinics	2 1/4	Reg Nurse II		1 1/2	Reg Nurse II
1 Library				2 1/2	Cust Wkr I
1 Classroom					
4th Floor	4 1/2	Psych Aide I	2		
	1 3/4	Reg Nurse II		1 1/4	Reg Nurse II
				1 1/2	Cust Wkr I
Central Supply &	1	Psych. Aide I	2	1	Psy Aide I
Surgery	1	Surgical Nurse II			
Laboratory	1	Medical Tech I	3		
	1	X-Ray Tech			
	1	EEG Tech		1	Cust Wkr I
Drug Room	1	Pharmacist	1	1	
				1	Clerk I

Faribault State School and Hospital

Department Services	Pres. no. of employees	Employee CS classification	No. pts. working	Add. CS pos. needed	CS class of pts. jobs.
Hospital (continued)					
Central Linen Supply	1	Custodial Wkr. I	4	2	Cust Wkr I
3rd Floor	10 1/2	Psych. Aide I	4	1	Psy Aide I
	2 1/4	Reg Nurse II		1 1/4	Reg Nurse II
				1 1/2	Cust Wkr I
Greenacres					
Mohawk	3	Psych. Aide II			
	8	Psych. Aide I	10	5 1/2	Psy Aide I
	1/2	Custodial Wkr. I		1/2	Cust Wkr I
Osage	4	Psych Aide II		1/2	Psy Aide II
	13 1/2	Psych. Aide I	24	7 1/2	Psy Aide I
	1	Custodial Wkr. I		1	Cust Wkr I
Hickory	3	Psych. Aide II			
	7 1/2	Psych. Aide I	26	5	Psy Aide I
	2	Custodial Wkr. I			
Maple	3	Psych. Aide II		1 1/2	Psy Aide II
	10 1/2	Psych. Aide I	28	4 1/2	Psy Aide I
	1	Custodial Wkr. I		2	Cust Wkr I
Glen	3	Psych. Aide II	17		
	1 1/2	Psych. Aide I		1 1/2	Psy Aide I
				1/2	Cust Wkr I
Lind	3	Psych. Aide II	15		
	1 1/2	Psych. Aide I		1 1/2	Psy Aide I
				1/2	Cust Wkr I
Springdale	3	Psych. Aide II	41	1	Cust Wkr I
	4 1/2	Psych. Aide I			
Elm	3	Psych. Aide II			
	8	Psych. Aide I	25	7 1/2	Psy Aide I
	1	Custodial Wkr. I		1	Cust Wkr I
Dairy	1	Psych. Aide II			
	2	Psych. Aide I			
				1	Cust Wkr I
Grandview	1	Psych. Aide II			
	5	Psych. Aide I			
	1 1/2	Cook II	64		
				1	Cust Wkr I
Pine	3	Psych. Aide II			
	11	Psych. Aide I	14	7	Psy Aide I
	2	Custodial Wkr. I		3	Cust Wkr I
Spruce	3	Psych. Aide II			
	10 1/2	Psych. Aide I	16	7 1/2	Psy Aide I
	3	Custodial Wkr. I		2	Cust Wkr I
Birch East	1/2	Custodial Wkr. I	36	2	Cust Wkr I
	7	Psych Aide I		7 1/2	Psy Aide I

Faribault State School and Hospital

Department Services	Pres. no. of employees	Employee CS classification	No. pts. working	Add. CS pos. needed	CS class of pts. jobs
Greenacres (continued)					
Birch West	1/2	Custodial Wkr. I		2	Cust Wkr I
	7	Psych. Aide I	5	7 1/2	Psy Aide I
Willow	4 1/2	Psych. Aide I	36	10 1/2	Psy Aide I
	2	Custodial Wkr. I	4		
Laurel	3	Psych. Aide II			
	4 1/2	Psych. Aide I	5	1	Cust Wkr I
Rose	3	Psych. Aide II			
	4 1/2	Psych. Aide I	8	1	Cust Wkr I
Oaks	3	Psych. Aide II			
	6 1/2	Psych. Aide I	31	4 1/2	Psy Aide I
				3	Cust Wkr I
Cedar	3	Psych. Aide II			
	10 1/2	Psych. Aide I	4	8 1/2	Psy Aide I
	1	Custodial Wkr. I	30	2	Cust Wkr I
			2	1	Seamstress
Skinner					
Fern	3	Psych. Aide II		1 1/2	Psy Aide II
	12 1/2	Psych. Aide I	37	9	Psy Aide I
	1/2	Custodial Wkr. I	25	3 1/2	Cust Wkr I
Ivy So.	3	Psych. Aide II			
	4 1/2	Psych. Aide I	2	2	Psy Aide I
	1/2	Custodial Wkr. I	5	1/2	Cust Wkr I
Ivy No.	3	Psych. Aide II	2	2	Psy Aide I
	4 1/2	Psych. Aide I	5	1/2	Cust Wkr I
	1/2	Custodial Wkr. I			
Holly	3	Psych. Aide II		1 1/2	Psy Aide II
	13	Psych. Aide I	101	5	Psy Aide I
	1 1/2	Custodial Wkr. I	10	4 1/2	Cust Wkr I
Iris	3	Psych. Aide II			
	1 1/2	Psych. Aide I	5		
				1	Cust Wkr I
Daisy	3	Psych. Aide II			
	4 1/2	Psych. Aide I			
			6	1	Cust Wkr I
Poppy	3	Psych. Aide II		1 1/2	Psy Aide II
	8 1/2	Psych. Aide I	10	6 1/2	Psy Aide I
	1	Custodial Wkr I	24	3	Cust Wkr I
Sunnyside					
Chip. West	3 1/2	Psych. Aide II		1	Psy Aide II
	3 1/2	Psych. Aide I	14	1 1/2	Psy Aide I
				1	Cust Wkr I
	1 1/2	Custodial Wkr. I	4 1/2		

Faribault State School and Hospital

Department Services	Pres. no. of employees	Employee CS classification	No. pts working	Add. CS pos. needed	CS class of pts. jobs
Sunnyside (continued)					
Chip. East	3 1/2	Psych. Aide II		1	Psy Aide II
	4 1/2	Psych. Aide I	16 1/2	1 1/2	Psy Aide I
	1 1/2	Custodial Wkr. I	4 1/2	1	Cust Wkr I
Dakota	3	Psych. Aide II		1 1/2	Psy Aide II
	10 1/2	Psych. Aide I	37	7 1/2	Psy Aide I
	2	Custodial Wkr. I	3	1	Cust Wkr I
Pawnee	3	Psych. Aide II		1 1/2	Psy Aide II
	10 1/2	Psych. Aide I	43	6	Psy Aide I
				3	Cust Wkr I
Seneca	3	Psych. Aide II			
	15	Psych. Aide I	22	16	Psy Aide I
	1	Custodial Wkr.		4	Cust Wkr I
Hillcrest	3	Psych. Aide II			
	2 1/2	Psych. Aide I	17		
				1 1/2	Cust Wkr I
West Cottage	3	Psych. Aide II		1 1/2	Psy Aide II
	4 1/2	Psych. Aide I	10	1 1/2	Cust Wkr I
Sioux	2	Psych. Aide II		1/2	Psy Aide II
	2 1/2	Psych. Aide I	10		
				1 1/2	Cust Wkr I
Huron	2	Psych. Aide II		1/2	Psy Aide II
	2 1/2	Psych. Aide I	9	1 1/2	Cust Wkr I
Totals	560		1433	360 1/4	

Faribault State School and Hospital

Institution-wide estimates by Civil Service class title:

	No. new pos. needed	Cost per pos. 1st year	Cost per CS class
Laundry Supvr. I	30	$2664	$ 79,920.00
Custodial Wkr. I	104 3/4	2664	279,054.00
Laborers	7	3120	21,840.00
Laborers I	3	3120	9,360.00
Seamstress	11	3000	33,000.00
Janitors	3	3240	9,720.00
Truck Driver	1	3504	3,504.00
Groundsman I	2	3120	6,240.00
Painters	2	4992	9,984.00
Cabinet Maker	1	4992	4,992.00
Carpenter	1	4992	4,992.00
Farmer I	12 1/2	3372	42,150.00
Cook I	6	2880	17,280.00
Baker I	2	3792	7,584.00
Food Service Supervisor	5	3120	15,600.00
Psychiatric Aide I	147	3240	476,280.00
Registered Nurse II	4	4620	18,480.00
Clerk I	1	2772	2,772.00
Psychiatric Aide II	14	3648	51,072.00
Totals	357 1/4		$1,093,824.00

Preliminary estimates: it would take 357 1/4 new Civil Service positions to replace the 1,433 patients working at minimum cost of $1,093,824.00 per year.

Chapter II

Comparison of the figures submitted by individual members in behalf of each institution shows that there is some correlation between institutions. Certain variations were partially attributed to differences in department structure and services between each institution.

In order to further refine the estimates, each committee member undertook the study of a particular position by studying the actual production of individual patients. Those positions were studied which involved tasks similar in all institutions. For example, production of laundry workers has high correlation between institutions inasmuch as the laundry facilities are rather new and laundry needs of institutions are relatively stable. Results, furthermore, could be compared to known community laundry production standards. Study of the nursing services, on the other hand, was much more difficult to accomplish.

COMPARISON OF PATIENT AND EMPLOYEE PRODUCTIVITY IN FARIBAULT STATE SCHOOL AND HOSPITAL

- Raymond C. Roach, Director
Rehabilitation Therapies
Faribault State School and Hospital

It appears to be very difficult to conduct a survey of hospital housekeeping that will provide valid results because of the differences in function of this department among the institutions for retardates. These differences occur in the assigned duties of Custodial Workers in cottage clothes rooms, dining rooms, central linen room, etc. For example, at Faribault State School and Hospital custodials are assigned to mending rooms, dining rooms, and cleaning of cottage areas, which differs from Cambridge State School and Hospital where custodial workers are not responsible for cottage clothes rooms or dining room functions except for spring and fall house cleaning. Thus it is impossible to prescribe a general procedure to evaluate the role of hospital housekeeping that would apply to all institutions.

However, the tailor shop is one specific area of hospital housekeeping that we are able to suggest a procedure for evaluation.

To evaluate the tailor shop at Faribault State School and Hospital the following determinations were made:

1. Average (9 month) number of new garments requested per month.

*2. Average time consumed by patients in constructing each garment.

*3. Average time consumed by employees in constructing each garment.

4. Average time spent by patients and employees in cleaning and oiling machines and in general housekeeping of tailor shop.

After obtaining this information the following procedures occurred:

1. We multiplied average patient time required to make each type of garment by number of average monthly requests to determine total minutes taken to fill monthly request for each type of clothing.

2. We multiplied average employee time required to make each type of garment by number of average monthly requests to determine total minutes taken to fill each monthly request for each type of clothing.

3. Both patient and employee minutes taken to fill monthly requests for each garment were summed to determine total required to fill monthly requests for all garments.

*We obtained average time it took employees and patients to complete each garment by timing individual workers. To give this study more reliability it is suggested that 8 to 10 individuals be sampled.

4. The total monthly minutes required to fill requests for all garments for patients and employees were divided by 9,100 working minutes per month per individual to determine the number of patients and employees required to fill monthly production demands. [(52 weeks x 35 hours x 60 minutes) ÷ 12 months = 9,100 minutes]

5. We divided total minutes required of patients to fill total monthly requests by total time it took employees to fill total monthly requests to determine efficiency ratio of patient to employee.

Results of our sampling showed that patients perform 66.5% as efficiently as employees in constructing new garments or that 3 patients do the work of 2 employees. This efficiency ratio is somewhat lower than our previous estimate of five patients to four employees.

Our figures show that 16 patients would be needed to fill the monthly requests or that 12 employees, in addition to the tailor shop foreman, would be needed to meet monthly production demands and to cover sick and vacation time.

Our procedure as applied to the Cambridge State School and Hospital suggests that they need three full time employees in addition to tailor shop foreman to meet their monthly production demands for new garments and to cover sick and vacation time. We were unable to evaluate the production demands placed on the Cambridge tailor shop for mending clothes for the male population and are unable to suggest staffing.

PRODUCTIVITY SURVEY
FARIBAULT STATE SCHOOL AND HOSPITAL TAILORSHOP

	Approx. Ratio	# Pts.	Pt. ave. time in min.	# Emp.	Emp. ave. time in min.	Ave. garments per month	Min. taken to fill monthly request 7 hrs/day Pt. min	Emp. min.
Trousers	2:1	9	63.5	2	32.5	162	10,287	5,265
Dresses	2:1	6	114.5	2	67.5	87	9,961.5	5,872.5
Shirt	1:1	8	108.75	2	105.0	208	22,620	21,840
Gowns	2:1	6	100	2	42.5	322	32,200	13,685
Coveralls	2:1	7	130	2	82.5	35	4,550	2,887.5
Rompers	1½:1	3	136.40	2	97.5	91	12,412.4	8,872.5
Pajamas	3:1	2	142.5	2	57.5	16	2,280	920
Sheets (hem)	3:1	2	21	2	8	135	2,835	1,080
Towels "	2:1	2	12	2	5	146	1,752	730
Diapers "	2:1	2	12	2	5	146	1,752	730
Apron	1:1	1	30	2	30	164	4,920	4,920
Laundry bag	1:1	2	87.5	2	67.5	64	5,600	4,320
Mattress tick	1:1	2	127.5	2	107.5	60	7,650	6,450
Bibs	1:1	1	18	2	17.5	160	2,880	2,800
Pantie	1:1	2	30	2	22.5	94	2,820	2,115

	Approx. Ratio	# Pts.	Pt. ave. Time in min.	# Empl	Emp. ave. time in min.	Ave. garments per month	Min. taken to fill monthly request 7 hrs/day Pt. min.	Emp. min.
Slip	1½:1	2	60	2	40	10	600	400
Curtains	1:1	1	35	2	32.5	18	630	585
Cl & Oiling	1:1	14	12½	2	10	at once/wk. 175 min.	700	560
Misc.			*67		*44.75	165	*11,055	*73,855
Cleaning up		14	30	2	20 est.	min/wk 21.00	8,400	5,600
Total N=20 garments	66.5% or 3:2						145,904.9	97,018
					Total min. per month per worker on job		9,100	9,100
					14 pt. work		127,400	
					16 pt. would work		145,600	
					11 Emp. would work			10,010

Average work requested per month
requires 16 patients or 11 employees + 1 employee for sick and vacation in addition to Tailorshop foreman

Ratio = 3:2

* There are approximately 1,820 working hours per year or 151.67 working hours per month or 9,100 working minutes per month.

PRODUCTION SURVEY
CAMBRIDGE STATE SCHOOL AND HOSPITAL TAILORSHOP

	Employee ave. min.	Average garments per month	Emp. min. taken to fill monthly requests
Night gowns	42.5	112	4,760
Diapers	5	154	759
Laundry bag	67.5	55	2,393
Rubber sheets	8	20	160
Restraint suits	150	5	750
Shirts	8	16	1,680
Panties	22.5	6	135
Aprons	30	70	2,100
Towels	5	443	2,215
Dresses	67.5	50	3,375
Bibs	17.5	180	3,150
Trousers	32.5	25	813
Bath slippers	20	12	240
			22,530

LAUNDRY PRODUCTIVITY SURVEY

- M. E. Krafve,
Assistant Superintendent
Faribault State School and Hospital

The laundries at Brainerd, Cambridge and Faribault are comparatively new, with new modern equipment; therefore, it can be assumed that the study made at the Faribault laundry will apply to Cambridge and Brainerd as well. The work flow would no doubt be basically the same although there may be some difference in methods and procedures. It is recommended that a further study be made of methods and procedures to determine what effect this would have on the staffing pattern.

In comparing the study made at Faribault with production figures furnished by Brainerd and Cambridge (Table 1 attached) it is found that the Brainerd load is 25.6% of the Faribault load. Based on 82 positions required to staff the Faribault laundry, Brainerd would need 21 compared to 21½ originally estimated. The load at Cambridge is approximately 72.6% of the Faribault load, thus they will need 59½ employees compared to 39 originally estimated (Table 2).

If our procedures are valid, it appears that the estimated load at Cambridge is high. Comparing the patient population served (Table 3) Brainerd is serving 25.4% of the population served at Faribault which validates the figure above; however, the population served at Cambridge is 50% of that served at Faribault. This will require further validation.

This study has brought out that the original estimate of employees needed as replacement for patient workers assigned to the Faribault laundry was underestimated by 33%. The study has borne out that in certain jobs patient production compares favorably with that of employees. This is especially true in routine and repetitive jobs. Patient workers do require close supervision, and need longer training periods; likewise in many cases they lack flexibility in being able to move from one job situation to another. The study also brought out that there are "peak and valley" situations in the work flow; it is planned to overcome this situation as funds become available so that adequate inventories can be established and maintained. Included in this plan is a central linen supply unit which is sorely needed.

The industrial work program for patients in the institution is not only an economic factor, but also serves as a training program for those who are preparing for return to community life, and help them to become wholly or partially self-supporting. It also serves as a therapeutic and/or training area for those patients who are confronted with a longer or permanent stay in the institution, to better prepare them for the institution community living, to provide them with the satisfaction and self-respect gained from a useful occupation, and the knowledge that they are able to contribute to better living for those less fortunate than they.

Table 1

COMPARATIVE AVERAGE WEEKLY LAUNDRY LOAD

	Lbs.	% Large Flat	% Small Flat	% Rough Dry	% Pressing
Brainerd	27,865	31	8	57	4
Cambridge	79,315	30	15	45	10
Faribault	109,315	36½	15½	40	8

Table 2

COMPARATIVE STAFFING - EMPLOYEES AND PATIENTS

	Present Employees	Present Patient Workers	Estimate 10/5 Employees w/o Patients	Estimated Employees w/o Pts. Per Study Nov. '62
Brainerd	5	45	21½	21
Cambridge	15	47	39	59½
Faribault	31	105	63	82

Table 3

		Patient Population 10/31/62 (Book)
Brainerd		963
Cambridge		1,898
Faribault		3,796
Faribault State School and Hosp.	3,083	
Owatonna State School	357	
Braille & Sight Saving School	88	
School for the Deaf	268	

PRODUCTIVITY OF PATIENT INDUSTRIAL TRAINEES AND LAUNDRY EMPLOYEES

– Melville Krafve
Assistant Superintendent
Faribault State School and Hospital

A recent survey of industrial trainees in the Laundry of Faribault State School and Hospital indicated that 32 additional employees, or a total of 63, would be needed in the Laundry to maintain present levels of production without the use of industrial trainees.

In an effort to refine these estimates a study was made of those laundry operations which patient industrial trainees commonly perform and in which the productivity of each individual worker could be measured. A preliminary survey of laundry operation revealed that the operations in which individual productivity could be measured, and the type of measurement that could be made, were:

Sorting of soiled clothing	Pounds per minute
Spreading sheets by hand	Number per minute
Spreading sheets with machine	Number per minute
Feeding mangle, sheets	Number per minute
Feeding mangle, small items	Number per minute
Pressing dresses	Minutes per dress
Folding towels	Number per minute
Sorting rough dry items	Number per minute

METHOD

Observations of patients and employees engaged in these laundry operations made by the institution's industrial therapist and by two staff psychologists on various days and at various times of day over a three week period. Observation periods for the various operations ranged from 1 to 90 minutes each, and involved the performance of 1 to 6 individuals or, as in spreading sheets by hand or feeding sheets to the mangle, of a single team of two individuals. The observers were stationed in a room above the laundry work area where they could observe through windows and be relatively unnoticed. A stop-watch was used to signal the start and end of each observation period. Only one observer was used for each observation period, but prior orientation was given to standardize procedures.

The procedures used to measure productivity in the various operations, for both patient trainees and employees, were as follows:

Soiled sorting -- Bags of soiled clothing or linen were pre-weighted and then assigned in loads of 470 - 480 lbs. to groups of 6 patients each or 2 employees each for sorting. Timing was started as soon as the first item was picked up from the sorting table and was stopped when the last item had been placed in the appropriate cart or bag.

Spreading sheets by hand -- Teams of 2 patients each and of 2 employees each were timed and the number of sheets spread in that time recorded.

Spreading sheets with machine — Patients who regularly do this and 2 employees temporarily assigned were timed and the number of sheets spread in that time recorded. Because the employees were required to make more frequent rack changes, 15 seconds were subtracted from their time for each rack change in excess of the number the patients had.

Feeding mangle, sheets — The mangle speed was set at 70. Teams of 2 patients each and of two employees each were timed and the number of sheets fed into the mangle in that time recorded. A time adjustment was made, as above, for differences in number of rack changes.

Feeding mangle, small items — The mangle speed was set at 30. Patients and employees who customarily do this work were timed and the number of items fed into the mangle in that time recorded.

Pressing dresses — Patients and employees who customarily do this work were timed and the number of dresses completed in that time were recorded.

Folding towels — Procedure same as with pressing.

Sorting rough dry — Procedure same as with pressing.

Attempts to control various extraneous variables met with varying success. In most cases patient trainees were unaware that they were being observed, and in some cases this was true of employees. However, because the employees are not commonly assigned to some of the jobs that patients now do, their assignment by the Laundry Manager to some of the operations had to be done with their knowledge and cooperation. In some instances this clearly led to increased motivation and production rates; however, these were generally not maintained for very long, so that with extended observation their productivity tended to decline to what was probably a more routine rate.

In most instances observations of patients and employees were made at different times and in situations that could not be construed as competitive.

Randomization was the principal technique used to control such factors as: quality of trainees and of employees, variation in type of item being produced at different times and on different days, production increments or decrements associated with team composition, etc.

Where production represented that of several patients or employees over a time period, the production was averaged among them by dividing the amount produced or multiplying the time by the number of workers involved.

RESULTS

The main results are given in Table 1, showing the productivity of the average patient trainee now assigned to the various laundry operations and of the average employee either now assigned or temporarily assigned. Table 2 gives the ratio of average patient productivity to average employee productivity for each of the eight operations. These ratios show a range of patient "efficiency" as compared with employees ranging from 54% to 102%. (The variability of "error" of these observations, while not here, appears to be relatively small.)

There seems to be a positive, but imperfect, correlation between patient productivity in relation to employees and the ability level of the patients. In other words, the more capable patients tend to approach the productivity of employees. However, the amount of performance variability on some of the jobs is limited by the machines involved.

APPLICATION OF FINDINGS

The applicability of the above findings to replacing patient staffing of the laundry is no simple matter, but is contingent on a number of other factors, some measurable, some not measurable. Some of these factors are:

1. Total laundry load (averages 109,315 pounds per week).
2. Distribution of load (laundry manager estimates 36½% consists of large flat work, 15½% of small flat work, 40% of rough dry, and 8% of press work).
3. Rate of work flow (this is very uneven, with times of peak production and others of complete stoppage, due primarily to the necessity of completing all work the same day it is received).
4. Type of work (where machines are used, the "position" of manning the machine may over-ride the relative importance of individual productivity).
5. Standard of quality expected.
6. The need for other work not immediately directed to production, such as cleaning, communicating, supervising, training, learning, etc.
7. The need for replacements for personnel who are sick or on vacation.

However, with the information available and with certain reasonable assumptions regarding other factors, the following employee staffing for the various sections of the laundry is suggested:

Soiled sorting

Present employees 1½
Patient trainees 22
The present study indicates that patients perform 67% as efficiently as employees. On the basis of their measured rate of 7.3 pounds per minute, and of the uneven flow requiring that this work be completed as early in the day as possible, it would require 9 employees each working 27½ hours per week at this task to process the 109,315 pounds each week. Other time would be devoted to carting, cleanup, etc. One employee would be needed to supervise weighing and routing. One would be needed for sick and vacation time. Total for this section - 11. This is 9½ more than presently employed, which is 43% of the number of trainees they would replace.

Washing and extracting

Present employees 4
Patient trainees 7
No productivity studies were made in this area, but, on the basis that trainees seem to produce at least 50% of the employee rate, it should require at least 3 additional employees.
Total for this section - 7.

Dry tumblers	Present employees 1 Patient trainees 3 With new handling methods, the Laundry Supervisor estimates that this section could be entirely handled by the present employee. No studies were made in this area. Total for this section - 1.
Pressing and ironing	Present employees 7½ Patient trainees 17 Present study indicates patients are 87% as efficient as employees at pressing. No study of ironing was made. Shirts are presently, and would continue to be, done by employees. With 13 presses, estimate 13 employees for these; 2 employees for shirts; 2 for touching-up; 1 for preparation and routing; 2 employees for sick and vacation time. Total for this section - 20. This is 12½ more than presently employed, which represents 73% of the number of trainees they would replace.
Flatwork shake-out, spreader	Present employees 7½ Patient trainees 15 Present study indicates patients are 92 - 100% as efficient as employees in the feeding operations, 69% as efficient in machine spreading, and 54% as efficient in hand spreading. With three mangles now in almost constant use, it would require 12 employees to feed and remove flatwork from the mangles; 2 would be required to spread the large flatwork; 3 to shake-out and spread small items; 1 to route and supervise and 2 to provide for sick and vacation time. Total for the section - 20. This is 12½ more than presently employed, which represents 83% of the number of trainees they would replace.
Folding, sorting, dispatching rough dry	Present employees 1½ Patient trainees 20 Present survey indicates patients are 59% as efficient as employees at sorting and 73% as efficient at folding. Where 9 trainees are now required for sorting, it is estimated that 5 employees would be needed. Two are required, for folding, 1 for routing and supervision, and 1 for sick and vacation time. Total for this section - 9. This is 7½ more than presently employed, which represents 37½% of the number of trainees they would replace.
Folding, sorting dispatching flatwork	Present employees 3 Patient trainees 14 No study was made of this area. However, the laundry supervisor estimates a total of 8 would be needed in this section.

Laundry trucks	Present employees 2 Patient trainees 7 No study was made of this area, but at least 3 additional employees would be needed to replace the trainees, for a total of 5 in this section.
Laundry Manager	Present employee 1

Total Estimated Employees — 82.

The above estimates are in several instances obviously lower than would be made from strict application of patient-employee productivity ratios. They assume, however, a more constant flow than now prevails. Without procedural changes to assure such a constant flow, more employees would be needed to accomplish the necessary work during peak load periods.

TABLE 1

PRODUCTIVITY OF PATIENT INDUSTRIAL TRAINEES AND LAUNDRY EMPLOYEES
ON EIGHT SELECTED LAUNDRY OPERATIONS

OPERATION	PATIENTS			EMPLOYEES		
	NUMBER	TIME (Min)	PRODUCTIVITY	NUMBER	TIME (Min)	PRODUCTIVITY
SOILED SORTING	634 pounds	129	4.9 lbs./min.	1892 pounds	258	7.3 lbs./min.
SPREADING SHEETS, HAND	163 sheets	38	4.3 sheets/min.	239 sheets	30	8.0 sheets/min.
SPREADING SHEETS, MACHINE	472 sheets	178	2.7 sheets/min.	714 sheets	184	3.9 sheets/min.
FEEDING MANGLE, SHEETS	842 sheets	90	9.4 sheets/min.	806 sheets	79	10.2 sheets/min.
FEEDING MANGLE, SMALL ITEMS	673 items	126	5.3 items/min.	591 items	113	5.2 items/min.
PRESSING DRESSES	136 dresses	466	3.4 dress/min.	172 dresses	510	3.0 dress/min.
FOLDING TOWELS	670 towels	132	5.1 items/min.	1216 towels	174	7.0 items/min.
SORTING ROUGH DRY	792 items	243	3.3 items/min.	923 items	163	5.7 items/min.

TABLE 2

RATIOS OF PATIENT PRODUCTIVITY TO EMPLOYEE PRODUCTIVITY

OPERATION	PATIENT/EMPLOYEE RATIO
SOILED SORTING	.67
SPREADING SHEETS, HAND	.54
SPREADING SHEETS, MACHINE	.69
FEEDING MANGLE, SHEETS	.92
FEEDING MANGLE, SMALL ITEMS	1.02
PRESSING DRESSES	.88
FOLDING TOWELS	.73
SORTING ROUGH DRY	.58

REPORT ON MAINTENANCE SURVEY OF INSTITUTIONAL INDUSTRIAL PROGRAM AT THE FOUR MENTALLY RETARDED INSTITUTIONS

Costs are based on the proposed pay plan, and include costs of SERA and OASI contributions.

– Edward Foss
Business Manager
Owatonna State School

INSTITUTION	PRESENT PATIENTS	PRESENT EMPLOYEES	ADDITIONAL NO. OF EMPLOYEES w/o PATIENTS	CIVIL SERVICE CLASS TITLES	COSTS 1ST YEAR	COSTS 2ND YEAR	BIENNIAL COST
BRAINERD SS&H	12	10	6	C. Wkr. I	$18,770.00	$19,552.00	$38,322.00
CAMBRIDGE SS&H	25	11	7	Laborer I	25,639.00	26,643.00	52,282.00
FARIBAULT SS&H	35	28½	6	2 Groundsmen I 1 Truck Driver 1 Carpenter 2 Painters	28,886.00	29,990.00	58,876.00
OWATONNA SS	30	18	2	Groundsman I	7,325.00	7,612.00	14,937.00
TOTALS:	102	67½	21		$80,620.00	$83,797.00	$164,417.00

REPORT ON FARM SURVEY AT THE FOUR MENTALLY RETARDED INSTITUTIONS

FARIBAULT SS&H	75	13	12½	Farmer I	$45,785.00	$47,577.00	$93,262.00
OWATONNA SS	27	6	1	Farmer I	3,662.00	3,806.00	7,468.00
TOTALS	102	19	13½		$49,447.00	$51,383.00	$100,730.00

With improved methods and equipment, Faribault would request 1½ employees less and Owatonna ½ employee less. This would reduce the cost at Faribault to $40,183.00 for the first year and $41,868.00 for the biennial cost of $82,051.00. At Owatonna the cost would be reduced to $1,831.00 for the first year and $1,903.00 for the second year for a biennial total of $3,734.00

The total cost of the two institutions would be $85,785.00.

REPORT OF DIETARY STUDY

- George Boswell
Rehabilitation Therapies
Cambridge State School and Hospital

	Present Employees	Ratio	Patient Employees	Ratio	New Employees Needed	Ratio Between Total Employees and Population	Population
Faribault St. Sch. & Hosp.**	65	1 - 4.6	303	4 - 1	73 3/4	1 - 29.4	3100
Cambridge St. Sch. & Hosp.	44	1 - 2.4	106	3 - 1	36	1 - 23.7	1900
Brainerd St. Sch. & Hosp.	27 1/2	1 - 3.1	86	2.3 - 1	37 1/2	1 - 14.5	950
Owatonna State School	15	1 - 4.6	66*	2.4 - 1	28		

* Owatonna State School patients only work half days.

** These figures do not include the meat cutting area.

FARIBAULT STATE SCHOOL AND HOSPITAL

2 Baker I	@ $3648 + 9% each =	$	7,952.00
6 Cook I	@ $2880 + 9% each =		18,774.00
65 3/4 Cust Wkr. I	@ $2664 + 9% each =		190,873.00
	Total		$217,599.00

CAMBRIDGE STATE SCHOOL AND HOSPITAL

1 Baker I	@ $3648 + 9% each =	$	3,976.00
3 Cook I	@ $2880 + 9% each =		9,387.00
32 Cust. Wkrs. I	@ $2664 + 9% each =		92,896.00
	Total	$	106,259.00

BRAINERD STATE SCHOOL AND HOSPITAL

1 Baker I	@ $3648 + 9% each =	$	3,976.00
2 Cook I	@ $2880 + 9% each =		6,258.00
34 1/2 Cust. Wkr. I	@ $2664 + 9% each =		100,152.00
	Total		$110,386.00

OWATONNA STATE SCHOOL

1 1/2 Baker I	@ $3648 + 9% each =	$	5,964.00
26 1/2 Cust. Wkr. I	@ $2664 + 9% each =		16,929.00
	Total	$	22,893.00

GRAND TOTAL $457,137.00

There does not seem to be any relationship between positions and the number of employees requested; nor between diagnostic groupings of patients and the number of employees requested. Therefore, if this is to be valid, I feel that somebody qualified in the area of time studies would have to repeat this study.

REPORT OF STUDY OF NURSING SERVICES

- Harold W. Peterson
Administrator
Brainerd State School and Hospital

(Memorandum sent to Nursing Directors in each institution as members of Mr. Peterson's committee)

In the Conclusion section of my previous memorandum to you dated October 31, I mentioned the difficulty and the importance of providing some kind of a Conversion Factor which could be used in changing the total number of hours of work done by patients to some equivalent figure as this work might be done by a Civil Service employee.

The importance of this point in this study can hardly be overemphasized. Unless there is some very careful thinking about this point the conclusions drawn from this study could be, indeed, naive, and its results little less than some kind of propaganda.

I ask that you think about the following angles in this matter of the Conversion Factor:

1. The Psychiatric Aide, properly trained, may be expected to be able to do any or all, or a number of combinations, of the list of functions which would be ascribed to working patients. In this respect the Aide differs radically and qualitatively from the patient worker. In a list of some 25 or 30 functions it may be found that a few patients may customarily carry on five or six of these functions. The Aide should be able to carry on any of the listed functions and perhaps many more semiprofessional tasks in nursing not listed which the best patient will not do and should not be allowed to do. It is quite possible that some patient, for instance, might be better bed maker than many Aides, but if one took the overall function list it would soon be easy to see that this average Aide possessed far more accomplishments than the patient who might be so good at bed making.

If you think about this point a little more carefully, you will see how it would hardly ever be possible to compare any industrial patient in such a way as to make him the true equivalent of a Psychiatric Aide or even a Custodial Worker I.

The point I want to make here is that at the very beginning it should be considered almost impossible on a 1-4 or a 1-10 comparative basis to ascribe to any work patient full equivalence with the versatile working capacities of a Psychiatric Aide or perhaps any other type of Civil Service employee at work on the nursing service.

This, I would think, is a rather strong point that must be taken into consideration in setting up some kind of a Conversion Factor.

2. I think it might be said that the value of many employees is in inverse proportion to the amount of supervision that they must have. The Civil Service employee who needs really very little supervision is probably more valuable than the one who must be led around by the hand. It will probably be found that Psychiatric Aides I and II do not require an overweening amount of supervision. On the other hand, the patient working on the nursing service does require this supervision and in all probability needs far more supervision than he is getting. This introduces a subtraction point in the Conversion Factor which ought to be taken into consideration.

3. There is the obvious point that if two people are performing a similar work function one will do more or less than the other. An employee might be making beds for three hours; an industrial patient might be making beds for three hours. It will probably often be found that the work of our mentally retarded industrial patient in nursing service would be considerably behind that of the Civil Service employee in gross amount of work done. This is another situation which affects the Conversion Factor.

4. It is also obvious that there should be observable differences in the quality of work done with respect to any nursing function or combination of functions. For instance, many of us have seen patients feeding other patients; we have also seen Aides feeding patients. It is a fairly common observation that some patients fed by other patients are impatiently fed. Observation may therefore bring out the fact in a great multitude of cases that there are distinct qualitative differences in work done by the industrial patient as compared with the Civil Service employee. This is a final point of judgment involved in providing a true Conversion Factor.

I am not sure how well I have covered these points; possibly you disagree with some of these remarks; but I would think that such a disagreement should not be based upon observation of a few patients who happen to be quite extraordinary.

I am thinking of suggesting some kind of basis for a Conversion Factor very shortly since we must have it. After you have read this memo, I would appreciate your putting on your thinking cap and writing me promptly regarding any criticisms or constructive suggestion you might have about a Conversion Factor which could be used in a common-sense way by those who will have to make this judgment in the next step of our study.

Activation of Nursing Service Patient Job Contribution Study,
All Institutions for the Mentally Retarded

This memorandum is a summarization of results of our second meeting at Cambridge State School and Hospital which took place on Friday, November 16 from 11:00 A.M. to 2:30 P.M. By the time this review of discussion and suggestions is received, the three institutions will have embarked upon a main stage in the patient job contributions study which addresses itself primarily to the task of timing of patient contributions in various activity areas. The summary will cover the two main points of classification of activities according to activity areas and the Observer's Record.

I

USE OF THE CLASSIFIED LIST OF PATIENT JOBS CONNECTED WITH THE NURSING SERVICE

The attached list classifying patient job activities according to activity area is based on a grass roots list of suggestions made by Aides in all three institutions to the Directors of Nurses. Each Director of Nurses then summarized the suggestions and passed them on to the Chairman of the Study Committee who classified the activities according to the system set forth in Chapter 3 of U. S. Public Health Service Publication No. 370 entitled "How to Study Nursing Activities in a Patient Unit". On basis of the suggestions given in this manual a patient job activities list made up of six general categories was established. These were: One-to-one Physical Care of Patients, Therapeutic Services of Patients to Other Patients, Care of Clothing and Linen, Food Service Duties, Housekeeping - Ward Order and Routines, and General Messenger Service. The specific concrete activities were sub-headed under these main categories under twenty code numbers.

The purpose of the classificiation list is to simplify the problem of timing the work of patients. To time the simplest kind of duty performed by the "simplest" patient, to time the large number of duties included in the total list in a particularized way, would have been an insurmountable task. It remains necessary for the Charge Aide who does the timing and who carries on the observation of the patients' work to study the classification list very carefully so that he or she may become well acquainted with all of its subdivisions. This knowledge could hardly be acquired in anything less than two or three careful readings.

It will be noted that these are very concrete lists, but even in their itemization they do not give everything in smallest detail. It is quite likely that the majority of work carried on by patients can be made to fit into the categories listed, but doubtless certain activities will be carried on which are not covered by the list. In such case it will be the duty of the Charge Aide to make judgment as to which category furnishes the closest relationship to the new activity.

All should remember that the classifications concern not only the work of patients designated as "industrial patients" and who get paid, but it also refers to the work of any patient who does work without pay and who has not been regarded as an "industrial patient".

Please carefully keep in mind that all of these activities refer to services performed by a patient for another and/or other patients either directly or indirectly. It does not include any rather complete self-help activity, since there must be some kind of limitation on the scope of this study.

It cannot be overemphasized that Charge Aides must be as accurate and as conscientious as possible in making full and proper use of this classification list if anything approaching complete and honest results are to be had from this study. This, in fact, is a duty of fairness we owe to our patients.

It is pretty obvious that there is some overlapping of concrete sub-points in connection with a coded activity. It was felt that it would be better to allow this and to list as many concrete examples as possible so that the job of allocating time spent by patients in various activities could more easily be coded in the Observer's Record.

II

DEVELOPMENT OF THE OBSERVER'S RECORD

1. Timing of Activities. Charge Aides will generally know which patients work, how much and how well. The thing that is bound to be brought out in this study, however, is that fact that we perhaps too commonly overlook the value of contributions made by quite severely retarded patients; by those patients who stay chiefly on the ward and who often get no pay for what they do. These patients and what they contribute must be recorded. Please note that time in the little squares is to be recorded in hours, not minutes. We do not have the time to have an absolutely accurate study. To provide such a study would probably cost thousands of dollars and special training plus stop watches and the like. In recording time spent by a patient in any of the numbered activity areas you will therefore record the time in hours, and if a patient works for one-half hour he should get credit for an hour. We would not expect to see many patient recorded as having worked a full eight hours.

Charge Aides will have to work out whatever system seems best for them in keeping track of the time worked by patients. Perhaps they should carry a small notebook or 3x5 cards or evolve some other system.

It is the general feeling of the Chairman that after the first day it should be possible to do a fairly accurate job in this study consuming no more than about one hour's time. It may be necessary to revise this estimate but it is suggested as a possible time limit since we are all well aware that this is not going to be a super-scientific study nor do you have time to make it one. We shall simply have to use our common sense in the matter.

2. Ward Type Number. It is hoped that by Wednesday, November 21, Directors of Nurses would have forwarded to the Chairman of the Study Committee a list of what seems to them to be the kinds of wards - or more accurately, the kinds of patients on various wards - which make up their institution. A common list of these, as an illustration is that of: bedfast patients, ambulatory non-working patients, partially ambulatory non-working patients, and ambulatory working patients. It was brought out in discussions of the Committee that these classifications were inadequate since they did not take into consideration ages of patients and wards in which there

are mixtures of patients. It is hoped that with all of their experience the Directors of Nurses may come out with some new and more complete categorization of ward types. Having received these three lists, the Chairman will attempt to set up a coding of the classifications so that under the heading of "Ward Type Number", it will be possible for the Director of Nurses in each institution to make decision as to what each ward type is. Decision as to the Ward Type Number will be made in every case by the Director of Nurses in each institution and will be entered on the last day's observation record for each ward. The coded categories will be forwarded to the Director of Nurses prior to Wednesday, November 28.

3. Net Number of Patients on Ward. This number is to include only the patients actually on the ward, not the book count. Patients on Trial Placement or Temporary Medical Treatment, and so forth are not to be included. The net number on the ward will be taken from the census at midnight each day.

4. Inclusive Dates. Since each day covers the three shifts, two dates will appear on each sheet. The study will begin at the beginning of the day shift on Wednesday, November 21 in all three institutions and will be carried on for exactly seven days - or through the night shift ending on Tuesday, November 27.

5. Age. This entry refers to the age of the patient, not the patient's birthdate. In other words, the patient is 57 years of age and the date of the year of birth, namely the year of birth, 1904, is not wanted.

6. DPW Number. All institutions will attempt to secure DPW numbers to insert in this space. In the event that this should become an insurmountable task, hospital numbers will be used instead.

7. Name of Patient. Identification of patients merely by DPW number would make this study impossible since observations must be made from shift to shift and because DPW numbers are not easily available in all cases. It will be necessary to specifically identify the patient by last and first names with middle initial.

8. Bartman Classification System. Instructions with respect to the Bartman Classificiation System have been passed out to all three institutions as well as copies of the slip or card necessary to properly classify the patient. It was believed that the wards at Faribault and Cambridge might have the original classifications somewhere intact so that these classifications could be easily copied on the Observer's Record. Please note that numbers are to be used in each case and these numbers will be explained by the Directors of Nurses. At Brainerd State School and Hospital it will very likely be necessary to work out new Bartman Classifications since some 350 more patients have been admitted to the institution since the original study was made.

9. Time Spent in Activity Area. Entries in this section are of predominant importance and interest in this study. Please take care that time spent in activity areas for the patient is included in the right shift. You will note that provision is made for entry of time under the 3-shift system.

10. Total Hours. This section plainly calls for the horizontal adding of all time spent by a patient in work on each shift. Since split shifts are somewhat common in the work of patients, we have found it necessary to provide this spacing. Since, further, it is quite common practice that a number of patients must be on the job very early in the morning before the beginning of the day shift, it has been necessary for us to include the category of shift 3 or the night shift.

Following the horizontal adding of hours, it is also necessary to total vertically all hours contributed by all patients on each shift. Finally in this regard, the totals of each shift should be combined in the Grand Total space in the Total Hours column.

11. Determination of Ratings. This point comes under the column named 1-6 under the general heading of "Conversion Factor". This is a point to be carefully understood by all Charge Aides. Our assumption is that the best patient worker cannot be the equivalent of even a fictitious Civil Service employee who we shall call a Nursing Service Assistant working 40 hours per week and receiving $200 per month. The basic reason for our judgment on this point is that although the Civil Service employee should be able to do all of the activities listed in the classification list, it would hardly be likely that any patient, however good, would have the versatility necessary to perform all of these duties. Consequently we arbitrarily set the work value of the working patient on the nursing service at .6 of one Civil Service employee entitled Nursing Service Assistant who works 40 hours per week and received $200 per month. We admit this to be subject to much possible criticism.

Now, reverting to the 1-6 figure that you will find under the Conversion Factor section of the Observer's Record: This means that the Charge Aide is to make judgment concerning the value of the work done by the patient and ascribe to that patient a value of 1,2,3,4,5, or 6. This judgment is made by taking into consideration the work of other ward patients in comparison and by keeping in mind something regarding the overall comparison of things that could be done by the patient were the patient as good a worker, as versatile, that is, as the fictitious Civil Service Employee. The Charge Aide will therefore indicate the conversion value of the patient as being any number of 1 through 6.

12. Finalizing the Conversion Factor. Let us suppose that patient No. 1 Observer's Record puts in six hours of work and that his efficiency is rated as 3. The last section in the Observer's Record calls for the multiplication of 6 hours times the conversion factor of 3 or a total of 18. This process will be repeated for each patient on the page and then the final figures will be added and divided by the number 80.

Some feel that the figure of 80 is rather obscure: it simply means that the average good fictitious Civil Service employee working for one day of 8 hours should have an efficiency figure of 10. 8 x 10= 80.

This would correspond with the highest possible rating the industrial patient could get, namely, 8 hours times the conversion factor of .6, or 48. It is plain from this that the best industrial patient on the nursing service would be the equivalent of just a little more than half of the fictitious Civil Service employee we have attempted to set up in this study.

13. Responsibility for Efficiency Rating of Industrial Patients. Charge Aides must be responsible for these ratings. As mentioned, ratings should be based upon a comparison of the patient's work with that of other patients working on the ward. His versatility, quantity and quality of work, willingness to work, dependability, should all be considered. Again this refers to the 1-6 ratio.

14. Seven-day Supply of Observer's Records. A sufficient number of sheets of the Observer's Record will be supplied to each ward on the first day to last the entire seven days. Charge Aides will probably enter information as to the names of patients who are considered actually working patients or industrial patients on all sheets. From day to day these names may be changed and other names added, particularly the names of those patients who contribute but who have not been regarded as industrial patients.

At the end of each day, the day's sheet or sheets of the ward will be turned in to the office of the Director of Nurses. There they will be kept in orderly files, segregated by ward, until the seven days are completed. They will then be stapled together by wards.

Prior to turning in the day's sheets, it would be a duty of the Charge Aide to do all calculations required on each sheet and to re-check his or her figures with care.

15. Limitation. Work done in a dining room is to be considered if the dining room used is in the patient building where the ward is. This type of work is not to be considered when your patients have to march to another building to a large central dining room to have their meals. However, if a large number of patients are fed in a patient building, that building will have to consider work done by patients in such dining room as a part of the study.

In other words, if you have patients who work on other parts of the campus it is not your responsibility to time their work. This becomes the responsibility of the Charge Aides in the buildings where such roving industrial patients carry out the job.

16. Summarization by Directors of Nurses. Prior to the end of the seven-day study period the Chairman of the Committee will devise some types of summarization sheets which Directors of Nurses will use in listing and summarizing certain totals. This will depend upon the kind of immediate results we are desirous of having from this study. Very probably the summarization will have to do with the conversion of industrial patient time on the nursing services into an equivalent of fictitious Civil Service employees so that some money value may be placed on this work.

It is very plain that the results of this study can be used for finding out many things regarding the patient work program which, perhaps, have not come to light of day at this point.

SUMMARY

To point up the importance of this rather large study which will involve approximately 142 wards in the three large institutions for the mentally retarded in the State of Minnesota, some of the other uses of this study may be listed:

SUMMARY (continued)

a. A comparative picture of the use of industrial patients on nursing services with respect to the three institutions may be obtained.

b. A picture of what kind of things patients do most on nursing services can be determined in a percentage-wise fashion.

c. Kinds of patient work may be correlated with the intellectual, emotional and physical levels of retarded patients in institutions.

d. Plainly a relationship should come forth indicating kinds of work as compared with types of wards.

The foregoing are only first thought results which may be obtained from this survey. A large number of other possibilities can easily be suggested, providing all concerned do their work in this study to the best of their ability.

SUMMARY OF DEADLINES

1. Ward Type suggestions in hands of Committee, Chairman, Wednesday, November 21, 1962.

2. Beginning of ward Seven-Day Count-down - beginning of day shift, Wednesday, November 21, 1962.

3. End of ward Seven-Day Count-down - end of night shift, Tuesday, November 27, 1962.

4. Final ward type list in hands of Directors of Nurses, all institutions - Tuesday, November 27, 1962.

5. Summarization Forms in hands of Directors of Nurses, all institutions - Tuesday, November 27, 1962.

6. Summarizations by Directors of Nurses - through Friday, November 30, 1962.

7. All Observer's Records and Summarizations in hands of Committee Chairman at Brainerd - Monday, December 3, 1962.

8. Preliminary Presentation of Results of Study by Chairman of the Study Committee - Inter-Institutional Meeting, Centennial Building, St. Paul, Thursday, December 13, 1962.

NURSING SERVICE PATIENT JOB CONTRIBUTIONS STUDY — OBSERVER'S RECORD

Institution_____ No. employees on duty, 1st shift_____ Inclusive dates_____
Building_____ No. employees on duty, 2nd shift_____ Observer, 1st shift_____
Ward_____ No. employees on duty, 3rd shift_____ Observer, 2nd shift_____
Page_____ of_____ Net No. patients on ward during this 24 hr. period____ Observer, 3rd shift_____
Ward Type No._____ Age Range of Patients on Ward_____ to _____

Name of Patient (Last,first,initial)	Age	DPW Number	Bartman Classif.			Time Spent in Activity Area																			Total Hours			Conversion Factor	
			IH	ED	PH	11	12	13	14	15	21	22	23	24	25	26	31	32	41	42	43	51	52	53	61	S_1	S_2	S_3	1-6	CF x Hrs.
Vertical Totals																												CF Total	
																									Grand Total			CF Tot.÷80	

NURSING SERVICE PATIENT JOB CONTRIBUTIONS STUDY

Classification of Activities According to Activity Area

Codes for the activity areas as defined for this study are as follows:

One-to-One Physical Care of Patients

Code No.	Definition
11	"Bathing of Patients" includes: a. Transporting patients to and from bathing area. b. Helping with bathing (undressing, lifting patient, bathing, drying, dressing).
12	"Dressing Patients" includes: a. Undressing patients and helping put patients to bed. b. Dressing patients for daytime and night time. c. Helping patients to dress themselves; e.g., assisting in putting on shoes, tying shoes, putting on stockings, buttoning clothing. d. Checking to see if patients who have dressed themselves are properly dressed. e. Helping patients to select clean clothing. f. Getting or laying out clothes for patients. g. Helping to put tie jackets on wheelchair patients.
13	"Care of Incontinent Patients" includes: a. Cleaning and re-dressing incontinent patients. b. Observing and reporting patients who have soiled themselves and need attention. c. Changing diapers as needed or per schedule. d. Helping patients to toilet - any or all phases. e. Assisting with toilet training. c. "Changing" linen on beds when this is needed.
14	"Personal Hygienic Services to Patients" includes: a. Cutting fingernails and toenails. b. Combing hair. c. Brushing teeth and assisting patients to brush teeth. d. Assisting in care of dentures. e. Washing hands and faces before or after meals. f. Shampooing and/or setting hair (under Aides). g. Taking care of "running" noses. h. Cleaning and putting away toothbrushes. i. Lathering and helping to shave patients (under Aides).

15 "Feeding Patients Who Need Help" includes:

a. Feeding patients who cannot feed themselves - bed patients or others.
b. Supervising patients who feed themselves but are not good at it.
c. Placing bibs on patients before meals.
d. Carrying trays for patients who cannot carry their own.
e. Helping seat patients in high chairs or other special seating.
f. Giving patients extra fluids between meals.

Therapeutic Services of Patients to Other Patients

Code No. Definition

21 "Protective Observation of Patients" includes:

a. Watching for occurrence of seizures and reporting to Aides; helping with seizure patients.
b. Watching and reporting possible runaway patients.
c. Watching and protecting patients from self-injury or from injury by others.
d. Searching for missing patients.
e. Awakening patients in A.M.

22 "Teaching Other Patients" includes:

a. Helping teach to talk.
b. Helping teach to walk.
c. Helping teach to feed self (if under a definite program)
d. Helping teach to dress self (if under a definite program)

23 "Transporting or Escorting Patients" includes:

a. Escorting other patients to Lab, X-Ray, Dentist, Psychology, Social Services, School, O.T., Pt. Canteen, Rehab. Therapies, Infirmary, Treatment room, Church, Opthalmologist, etc.
b. Pushing patients in wheelchairs indoors or outdoors to and from work or other assignments.
c. Helping patients up and down stairs.
d. Helping to take patients for walks, indoors or outdoors.
e. Dressing patients to go outdoors.
f. Escorting patients to sewing room for clothes fittings.
g. Escorting patients to particular area to visit with relatives or friends.
h. Helping to identify patients sent to special areas.

24. "Activating Patients" includes:

a. Writing letters for other patients.
b. Reading to other patients - letters, etc.

Code No. Definition

c. Playing music for patients.
d. Caring for pets (e.g., birds, goldfish) that are kept at various patient buildings for the enjoyment of all patients.
e. Caring for flowers and plants placed for the enjoyment of all patients.
f. Helping with ward parties.
g. Coloring with patients; helping patients to use sewing cards, to start jigsaw puzzles, play records, etc.
h. Playing ball with patients.
i. Distributing mail and/or treats to patients.
j. Helping patients to use playground equipment adjacent to or in patient building.
k. Helping to organize and/or supervise recreational activities within the building.
l. Playing with younger patients.

25 "Personal Therapeutic or Questionable Therapeutic Services to Other Patients" includes:

a. Filling pipes for particular patients.
b. Rolling cigarettes for patient use.
c. Filling cigarette lighters.
d. Lighting smokes for patients not having cigarette lighters.
e. Assisting Cosmetic Therapist or Barber when they work in the patient building.

26 "Caring for Sick or Disturbed Patients" includes:

a. Helping to hold patients for injections, for X-Ray, dental treatment, etc.
b. Helping to hold patients for obtaining blood specimens.
c. Helping to hold combative, aggressive, or hyperactive patients until they quiet down.
d. Rocking small patients in a rocking chair.
e. Staying with patients getting hot packs (to see that they do not move).
f. Staying with patients getting I.V. fluids (to see that they do not move.)

Care of Clothing and Linen

Code No. Definition

31 "Care of Soiled Clothing or Linen" includes:

a. Picking up and/or collecting soiled clothing or linen within the ward or building.
b. Emptying soiled linen containers.
c. Rinsing out soiled diapers, clothing and linen.
d. Sorting out soiled laundry.
e. Polishing shoes.
f. Washing patients' personal clothing in ward or building automatic washer.

Code No. Definition

g. Ironing other patients' clothes.
h. Hanging above laundry up to dry.

32 "Care of Clean Clothing or Linen or Clothing and Linen in Need of Repair" includes:

a. Putting night clothing in proper place after night use.
b. Folding linen, diapers and clothing.
c. Sorting stockings, other clothing, and linen.
d. Placing clean and/or dry cleaned clothing in proper area.
e. Storing clean linen in proper area.
f. Placing shoes in proper place at night.
g. Hanging up clothing in clothes room.
h. Making bath bundles (clean clothing for each patient to put on after taking a bath)
i. Checking and segregating clothing and/or linen needing repair.
j. Distributing linen and/or clothing to patients' sleeping areas.
k. Marking clothing and linens.
l. Mending, sewing on buttons, hemming dresses - on ward or in building.
m. Keeping clothes rooms in order.
n. Giving out clothing from a clothing room.
o. Counting linen.
p. Checking clothing for proper marking; possibly re-marking.

Food Service Duties

Code No. Definition

41 "Preparing Cafeterias for Serving" (within patient building) includes:

a. Folding napkins
b. Filling sugar bowls and salt and pepper shakers.
c. Cutting butter.
d. Slicing meat in advance of serving.
e. Making and buttering toast.
f. Peeling eggs.
g. Setting up soft and other diet trays.
h. Making coffee
i. Pouring milk, coffee, tea, water, and juices.
j. Setting up food trucks (if for use within the patient building).

42 "Helping to Serve Food to Patients in Patient Building Cafeteria" includes:

a. Serving food on cafeteria line.
b. Carrying trays to wards and back to patient building food service area.

43 "Post-serving Activities" (in patient building) includes:

a. Clearing tables.
b. Scraping dishes and stacking trays.
c. Washing dishes (by hand and/or dishwashing machine).

Code No. Definition

d. Cleaning aer voids.
e. Hanging up dish cloths and dish towels.
f. Cleaning kitchen equipment and appliances.
g. Cleaning drawers in food service area.
h. Cleaning walk-in coolers.
i. Cleaning the loading dock or area.
j. Cleaning plastic dishes with plastic cleaner; cleaning dinnerware.
k. Cleaning any or all furnishings, floors, walls, windows, etc. in the patient building dining area.

Housekeeping - Ward Order and Routines (not working with patients)

Code No. Definition

51 "Making Beds" includes:

a. Making beds alone.
b. Helping to make beds.
c. Stripping beds.
d. Folding bedspreads.
e. Turning mattresses.

52 "Straightening Up" includes:

a. Straightening furniture in dayrooms.
b. Straightening articles in cupboards and clothing rooms.
c. Straightening up bathing areas after baths.
d. Straightening patient rooms or sleeping areas.
e. Arranging chairs for various entertainments.

53 "Cleaning" includes:

a. Cleaning soiled areas on floors, doors, windows, walls, polishing when instructed (except in dining area).
b. Cleaning benches, tables, chairs, settees.
c. Cleaning wheelchairs, high chairs, walkers, crutches.
d. Cleaning floor mats.
e. Cleaning beds and mattresses.
f. Cleaning bedside stands and built-in cupboards.
g. Emptying and cleaning bedpans, urinals, basins.
h. Cleaning counters and furniture in day room, utility areas, attendants' stations, dormitories.
i. Cleaning drinking fountains, bath tubs and shower stalls after bathing.
j. Cleaning toilet stools.
k. Sweeping floors, scrubbing, dusting, "tidying up".

Code No.	Definition
l.	Emptying and cleaning ash trays; waste baskets; trash cans, garbage pails.
m.	Washing medicine glasses.
n.	Washing and cleaning toys.
o.	Using floor cleaning machines.
p.	Opening and closing windows for airing.
q.	Filling paper towel, paper cup and toilet paper containers or holders.
r.	Outside cleaning - adjacent to building.

Messenger Service, General

Code No.	Definition
61	"Messenger Service" includes:
a.	Answering telephone, delivering messages, greeting visitors.
b.	Carrying letters, packages, written communications to and from proper areas.
c.	Operating building elevator.
d.	Transporting soiled linen and clothing to laundry or to point of other transport.
e.	Transporting employees' laundry to laundry and returning clean laundry to building.
f.	Running miscellaneous errands for Aides.

Summary of Estimated Money Values of Services
Rendered by Mentally Retarded Patients in the Areas of
Nursing Services, Ward Housekeeping and
Patient Building Cafeterias at the Three Large
Minnesota State Institutions for the Retarded

Home of Institution	Males or Female Patients	Services	Percentage of Average Efficiency Classif. with Fictitious N.S. Asst.	Total No. of Hours Worked Per Week	Hours per Week Comparable with Nsg. Serv. Assistant	Hourly Rate of Nsg. Serv. Assistant	Money Value of Patient Services Per Week	Money Value of Patients' Services Annually (52 weeks)
Brainerd	M	N.S.	.251	1444	362.4	1.1538	$ 418.14	$ 21,743.28
State	F	N.S.	.277	2781	770.34	1.1538	888.82	46,218.64
School &	Both	Hskpg.	.264	1712	451.97	1.1538	521.48	27,116.96
Hospital	Both	Cafeteria	.264	1964	518.5	1.1538	598.25	31,109.00
						Brainerd Annual Total		$126,187.88
Cambridge	M	N.S.	.27657	3214	888.9	1.538	$1,337.23	$ 53,331.72
State	F	N.S.	.3251	3565	1158.98	1.538	711.23	69,535.96
School &	Both	Hskpg.	.30084	2049	616.42	1.538	1,591.15	36,983.96
Hospital	Both	Cafeteria	.30084	4584	1379.05	1.538	3,098.08	32,739.80
						Cambridge Annual Total		$192,591.44
Faribault	M	N.S.	.363	7397	2685.11	1.538	$3,098.08	$161,100.16
State	F	N.S.	.35	8414	2944.9	1.538	3,397.83	176,587.16
School &	Both	Hskpg.	.3565	7286	2597.46	1.538	2,996.95	155,841.40
Hospital	Both	Cafeteria	.3565	7324	2611.01	1.538	3,012.58	156,654.16
						Faribault Annual Total		$650,182.88

GRAND ANNUAL TOTAL $ 968,962.20

Job and Production Study

BSSH Industrial Patients as compared with
normal employees in Meyer's Laundry in Brainerd

- John J. Maher
Industrial Therapy
Brainerd State School and Hospital

Here are some figures on the production in our laundry as compared to production in a commercial laundry. I obtained these figures from Meyer's in downtown Brainerd. Their business, dealing with resorts to quite an extent, is relatively seasonal which accounts for the drop in production and employees during the period used for our figures.

Production for week ending August 4, 1962

MEYERS LAUNDRY 40 hour week	BSSH LAUNDRY 40 hour week
45 1/3 employees - 1,815 Operator hrs	35 patients 6 employees - 1,085 Operator hrs*
Production	Production
39,625 pounds per week or 7,925 pounds per day	22,941 pounds per week or 4,588 pounds per day
21.83 pounds per operator hour	21.14 pounds per operator hour

Production for week ending September 29, 1962

20 employees - 800 Operator hrs	40 patients 5 employees - 985 Operator hrs**
Production	Production
18,335 pounds per week or 3,667 pounds per day	17,942 pounds per week or 3,588 pounds per day
22.91 pounds per operator hour	18.21 pounds per operator hour

*During this period our laundry was short staffed because five of the industrial patients were on vacation. However, because this is our busiest season production per operator hour was up. Apparently everyone concerned worked a little harder.

**Operator hours were computed as the actual hours the patients work. Some only work three or four hours per day, although they are present for eight.

25 Employees were laid off by the commercial laundry, due to slow down of business during this period.

It is interesting to note that during the busy season our production per operator hour is up and goes down during the slower season but Meyer's production comes up after the seasonal help is laid off.

Summary: (Chapter II)

Examples of information that can be drawn from the studies in this chapter:

Institution	*No. Nursing Assist. pos. needed to replace patient work	Minimum cost per year
BSSH	24 1/2	$ 57,764.00
CSSH	86 1/4	206,965.00
FSSH	313 1/4	752,108.00
Total	424	$1,016,837.00

Institution	Patient time involved in making beds (hrs. per week)
BSSH	658
CSSH	965
FSSH	2,459
Total	4,082

Converted to full time Nursing Assistant positions, the cost of these services would amount to $342,398.00 per year for all institutions.

Institutions	Cleaning on wards and hallways (hours per week)
BSSH	1,600
CSSH	2,033
FSSH	4,981
Total	8,614

Institution	Food Service by Patients (hours per week)
BSSH	650
CSSH	2,121
FSSH	3,851
Total	6,622

*The Nursing Services Assistant title used here and elsewhere is not a Civil Service classification, but rather a fictitious title for the work patients do, reflecting moreproperly the limited variety of skills and services they can perform. Based on current salary ranges, this fictitious job was assigned to a rate of $200.00 per month for purposes of further calculations.

Chapter III

In order to present the results of the work of the committee in clear understandable form, the contents of this Chapter involve only totals of job and cost estimates, broken down by Civil Service class title.

This information combined with population figures, numbers of patients assigned to work, authorized staff complement, indicates that patients do contribute significantly to the operation of the institution.

Determination of the extent to which institution needs for patient labor affects the treatment program is a highly complex matter. The following information hopefully will assist the citizens of Minnesota, the Legislature, institution officials, and the Minnesota Department of Public Welfare in determining future efforts to reduce institution needs for patient labor.

Brainerd State School and Hospital

Estimates of needs for certain Civil Service classes were altered, based on the Second Study, (Chapter II). The biggest change came about due to the "Nursing Assistant" class designated by Mr. H. W. Peterson's committee as being more appropriate.

CS Class Title	No. new pos. needed to replace pt. labor	Cost per pos. one year	Cost per CS class
Cook I	2	$2880	$ 5,760.00
Custodial Worker I	75	2604	199,800.00
Baker I	1	3792	3,792.00
Laundry Supervisor II	3	3648	10,944.00
Laundry Supervisor I	3	3240	9,720.00
Laundry Worker	23	2880	66,240.00
Clerk I	1	2772	2,772.00
Seamstress	3	3120	9,360.00
Patient Activities Assistant I	2	3240	6,480.00
Cosmetic Therapist	1 1/2	3648	5,472.00
*1) (Nursing Assistant)	24 1/2	2400	58,800.00
Total	139		$379,140.00

Other pertinent information:

Pt. population (end of 1962 fiscal year)	No. pts. assigned to job by I.T.	% of pts. working	Auth. staff comp.(1961-1962)	No. full time jobs to repl. pts.
931	370	39 plus %	230	139

Total no. jobs: includes staff compliment plus positions needed to replace pt. labor	% of work done by patients
377 1/2	37 plus

*1) Not a Civil Service class; salary estimated based on relative value of work.

Cambridge State School and Hospital

CS Class Title	No. new pos. needed to replace pts. labor	Cost per pos. one year	Cost per CS class
*1) Nursing Service Asst.	86 1/4	$2400	$207,000.00
*2) Custodial Worker I	51 1/2	2664	137,196.00
Cook I	3	2880	8,640.00
Baker I	1	3648	3,648.00
*2) Hospital Aide	-	-	-
Seamstress	4	3000	12,000.00
Clerk Typist I	2 1/2	2772	6,930.00
Barber	1	3240	3,240.00
Shoemaker	1 1/2	3664	5,496.00
Pt. Activities Asst.	5	3240	17,200.00
Laundry Supervisor I	2	3240	6,480.00
Laundry Worker	42 1/2	2664	113,220.00
Laborer I	7	3120	21,840.00
Total	207 1/4		$542,890.00

Other pertinent information:

Pt. population (end of 1962 fiscal year)	No. pts. assigned to job by I.T.	% of pts. working	Auth. staff comp.(1961-1962)	No. full time jobs to repl. pts.
1921	763	39 plus	552	207 1/4

Total no. jobs: includes staff compliment plus positions needed to replace pts. labor	% of work done by patients
759 1/4	27 plus

*1) See Chapter II, BSSH, study of nursing service positions. This non-Civil Service title was used in place of certain CS classes. Therefore totals and estimates have changed accordingly in these final figures.

*2) A large number of these positions were redesignated according to "Nursing Service Assistant" title now being used.

Faribault State School and Hospital

CS Class Title	No. new pos. needed to replace pts. labor	Cost per pos. one year	Cost per CS class
Food Service Supervisor	5	$3120	$ 15,600.00
Laundry Worker	49	2880	141,120.00
Custodial Worker I	123 3/4	2664	329,670.00
Laborer	10	3120	31,200.00
Seamstress	11	3000	33,000.00
Janitor	3	3240	9,720.00
Truck Driver	1	3504	3,504.00
Groundsman I	2	3120	6,240.00
Painters	2	4992	9,984.00
Cabinet Maker	1	4992	4,992.00
Carpenter	1	4992	4,992.00
Farmer I	12 1/2	3120	39,000.00
Clerk I	1	2664	2,664.00
Cook I	6	2880	17,280.00
Baker I	2	3648	7,296.00
*1) (Nursing Assistant)	313	2400	751,200.00
Total	543 1/4		$1,407,462.00

Other pertinent information:

Pt. population (end of 1962 fiscal year)	No. pts. assigned to job by I.T.	% of pts. working	Auth. staff comp. (1961-1962)	No. full time jobs to repl. pts.
3,131	1,432	45%	718	543 1/4

Total no. jobs: includes staff compliment plus positions needed to replace pt. labor	% of work done by patients
1,261 1/4	43 plus %

NOTE: Most patients are now working about 40 hours per week. About a year ago

Faribault State School and Hospital (continued)

about 75% of the patients were working close to or actually 48 hours per week. One reason: they have to do the laundry work for the Blind School and Owatonna State School.

*1) Replaces original designations for Registered Nurse II, Psychiatric Aide I, and Psychiatric Aide II.

Owatonna State School *1)

CS Class Title	No. new pos. needed to replace pts. labor	Cost per pos. one year	Cost per CS class
Custodial Worker I	10	$2664	$ 26,460.00
Stores Clerk	1	3120	3,120.00
Baker I	1	3792	3,792.00
Food Service Supervisor	20	3120	62,400.00
Farmer I	3	3372	10,116.00
Total	35		$105,888.00

Other pertinent information:

Pt. population (end of 1962 fiscal year)	No. pts. assigned to job by I.T.	% of pts. working	Auth. staff comp. (1961-1962)	No. full time jobs to repl pts
361	151	40 plus %	147	35

Total no. jobs: includes staff compliment plus positions needed to replace pt. labor	% of work done by patients
182	18 plus %

*1) It should be noted that the Owatonna State School assigns all patients to their jobs as a part of a pre-planned training program. Most patients work in conjunction with their school program. Therefore vocational training is closely related to education; 1/2 time in school and 1/2 time on the job.

NOTE: [illegible] laundry is done at Faribault State School and Hospital with no [illegible] of patient labor.

Number and variety of class titles by institutions:

CS Class Title	OSS	BSSH	CSSH	FSSH	Total
(Nursing Aide)		24 1/2	86 1/4	313	423 3/4
Custodial Worker	10	75	51 1/2	123 3/4	260 1/4
Cook I		2	3	6	11
Baker I	1	1	1	2	5
Seamstress		3	4	11	18
Clerk Typist I			2 1/2		2 1/2
Clerk I		1		1	2
Barber			1		1
Shoemaker			1 1/2		1 1/2
Patient Activities Assistant I		2	5		7
Laundry Supervisor II		3			3
Laundry Supervisor I		3	2		5
Laundry Worker		23	42 1/2	49	114 1/2
Laborer			7	10	17
Meat Cutter					
Cosmetic Therapist		1 1/2			1 1/2
Food Service Supervisor	20			5	25
Janitor				3	3
Truck Driver				1	1
Groundsman I				2	2
Cabinet Maker				1	1
Painter				2	2
Carpenter				1	1
Farmer I	3			12 1/2	3
Stores Clerk	1				1
Total	35	139	207 1/4	530 3/4 543 1/4	912

Totals	FSSH	CSSH	BSSH	OSS	All institutions
Patient pop. at end of 1962 fiscal year	3,131	1,921	931	361	6,344
Authorized staff compliment (fiscal year 1961 - 1962)	718	552	230	147	1,647
Number of patients assigned to jobs	1,432	763	370	151	2,716
Number of hospital employees working in departments using patient labor (includes supervisor and training)	559	495 1/2	73	43	1,170 1/2
Number of professional Rehabilitation employees responsible for assignment of patients to job (ind. training job)	1	2	1	1/2	4 1/2
Number of Civil Service positions needed to replace patient work	543 1/4	207 1/4	139	35	924 1/2
Minimum annual salary cost; based on 1961 - 1962 fiscal year salary scale (entrance)	$1,407,464.00	$542,890.00	$379,140.00	$105,888.00	$2,435,562.00

Biennium $4,871,124.00