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OCCUPATIONAL EFFICIENCY OF  
THE MENTALLY DEFECTIVE

A SURVEY OF THE INMATES OF THE MINNESOTA  
SCHOOL FOR FEEBLE MINDED AND  
COLONY FOR EPILEPTICS  
FARIBAULT

BY  
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Superintendent



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# THE MINNESOTA SCHOOL FOR FEEBLE MINDED AND COLONY FOR EPILEPTICS

## SECTION I

### GENERAL FACTS CONCERNING THE SCHOOL POPULATION

The Minnesota School for Feeble Minded and Colony for Epileptics located at Faribault is the only institution of its kind in the state. It was established in 1879. It receives the feeble minded and the epileptic. Provision has been made by law for the separation of the epileptics from the feeble-minded in a new colony to be built at Cambridge, Minnesota. Chapter 344, laws of 1917, as amended by Chapter 77, laws of 1919, provides the legal machinery for the commitment of the feeble minded to the care and custody of the State Board of Control by the probate courts of the state. Any relative, guardian or reputable citizen of a county in which a supposed defec-

TABLE I

SHOWING LENGTH OF TIME INMATES HAVE BEEN IN THE INSTITUTION

1 year.....	280	16 years.....	22	31 years.....	11
2 years.....	143	17 years.....	34	32 years.....	4
3 years.....	140	18 years.....	34	33 years.....	10
4 years.....	150	19 years.....	43	34 years.....	8
5 years.....	82	20 years.....	31	35 years.....	6
6 years.....	87	21 years.....	30	36 years.....	9
7 years.....	74	22 years.....	26	37 years.....	3
8 years.....	62	23 years.....	25	38 years.....	8
9 years.....	72	24 years.....	25	39 years.....	2
10 years.....	76	25 years.....	29	40 years.....	1
11 years.....	69	26 years.....	41	41 years.....	0
12 years.....	90	27 years.....	15	42 years.....	1
13 years.....	46	28 years.....	13	43 years.....	2
14 years.....	51	29 years.....	24	44 years.....	4
15 years.....	31	30 years.....	4		

In the above table 280 is the number who have been in the institution one year or less; 143 the number who have been in the institution from one to two years; 140 from two to three years, etc., to the last item, forty-three to forty-four years.

Average length of time of the above (now inmates in the institution) 10.24 years.

Average length of time in the institution of all inmates, including those now in the institution and those who have died or have been discharged, 7.2 years.

## SECTION II

THE MENTAL STATUS OF THE SCHOOL  
POPULATION

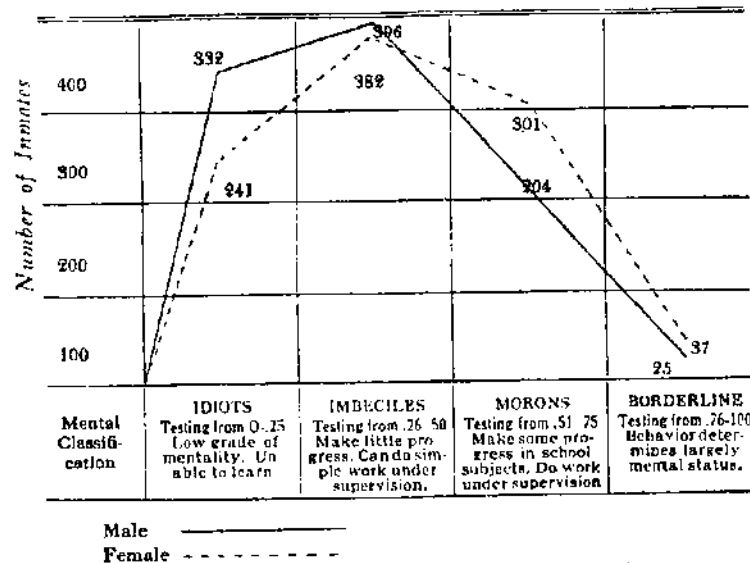
In the summer of 1922 a survey was completed of the mental condition of the entire population of 1918 inmates of the Minnesota School for Feeble Minded and Colony for Epileptics, Faribault. The Binet-Simon tests were used, in the earlier examinations as modified by Kuhlman, and in the later ones as modified by Terman.

The intelligence quotient of children under fifteen years of age was found by dividing their mental age, as determined by the tests, by their chronological age. In examining children over fifteen years of age, all years above fifteen were disregarded and fifteen was used as the denominator of the fraction. If, for instance, an inmate was thirty-five years old and tested three, his intelligence quotient was  $3-15$  or  $.20$ . This system gives a somewhat higher rating to the

population, as the years above sixteen are usually disregarded in tests of this kind. Results obtained in the army tests and elsewhere seem to indicate that the standard in mental testing has been a little too high. Those who tested from 0 to .25 were classified as idiots; those from .26 to .50 as imbeciles; those from .51 to .75 as morons and those above .75 as high grade morons or borderline cases. Only twelve inmates, two males and ten females, tested twelve years or over mentally. On page four is a chart of the mental classifications as shown by the tests.

CHART 3

CLASSIFICATION OF POPULATION ON THE BASIS OF MENTALITY



## SECTION III

INDUSTRIAL SURVEY BASED ON OCCUPATIONAL  
ACTIVITIES OF INMATES OF SCHOOL

In making an industrial survey of the population to see what skill the inmates showed in their tasks at different mental ages, the first question to determine was the method of procedure. One way was to make a study of the skill in all the different activities of the institution without reference to the mental ages and to check results with the mental ages afterwards. The other was to take the names of the individuals testing various mental ages, as the mental 8's, and follow them out into the various activities and industries of the institution. The first method, although involving much more work, was adopted as more scientific and more likely to yield unprejudiced results. The teachers, and others in charge of groups of feeble minded at their daily work were asked to study the individuals as they went about their tasks and grade them on a basis of good (G), fair

TABLE II  
SPECIMEN OF INDIVIDUAL INDUSTRIAL RECORDS OF INMATES

Name	Age	M. A.	Date of Examination	Kind of Employment	Time Spent at Work	Skill
A—E—	24	9½	9/17	General Housework	8 hours	Good
A—A—	23	8	2/16	General Housework	8 hours	Fair
A—E—	15	7	12/21	Hand Weaving—	1 hour	Fair
				Sews Carpet Rags,		
				Hems, etc. —	1 hour	Good
				Irons —	1 hour	Poor
A—J—	20	8	5/16	Sews, Crochets—	1 hour	Good
				Makes Lace, Sews		
				on power machine	3¼ hours	Fair
A—H—	11	5	5/22	Sews —	½ hour	Poor
				Spool Knitting—	½ hour	Poor
A—A—	16	2	1/18	Shakes clothes to get		
				them ready for		
				mangle —	4 hours	Fair

These records were now rechecked as to the chronological and mental ages of the inmates and in all cases where an examination had been made before the person was fifteen years of age, the mental age was recalculated on the basis of the intelligence quotient shown to bring it up to date.

(F), and poor (P). Those grading the inmates did not have access to the records showing their mental standing and could base their grades only on their observation of the work being done. These names and grades were submitted to the principal of the literary schools, who went over them carefully with the instructors and also with the general supervisors. The names and revised grades were then turned in, arranged in alphabetical order, and typed. There were now added in the typewritten record the present age of the individual, his mental age at the time he was examined, and the date of examination. Separate records were made of these data for the males and females. On page six is a specimen of the record as it appeared for the females:

## SECTION IV

## ANALYSIS OF RESULTS BY OCCUPATIONAL TASKS

The data contained 1,353 individual grades, 802 representing females, and 551 males. A great many of the individuals had work for parts of days in more than one department and the alphabetical record contained the names of 942 individuals, 529 females and 413 males. A careful check was now made of all the grades submitted and in all cases where an individual worked in more than one depart-

TABLE III  
DOMESTIC WORK\*  
(Females)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
4	9	0	3	6	0	33	67
5	21	4	17	0	19	81	0
6	30	8	13	9	27	43	30
7	34	19	11	4	56	32	12
8	43	21	18	4	49	42	9
9	31	18	13	0	58	42	0
10	15	9	6	0	60	40	0
11	8	7	1	0	87	13	0
12	1	1	0	0	100	0	0
13	1	1	0	0	100	0	0

G—Good. F—Fair. P—Poor.

\*Under domestic work are included setting tables, waiting tables, dish-washing, window washing, scrubbing, sweeping and dusting, bed making, care of bathrooms, pantry work, floor polishing, washing soiled clothing before sending it to laundry, and any other work growing out of the care of buildings.

ment his final grade was based on his work in a single department, the one that seemed most representative of his efforts. A final recheck was now made of the record and the following classes were eliminated: Those under four years mentally, those under fifteen chronologically, those whose task did not admit of classification, and those suffering from physical handicaps, such as blindness and deafness. This left a total of 746, 445 females and 301 males. In chronological age this group ranged upward from fifteen years, the large majority being from fifteen to forty years. Mentally the group extended from four to thirteen. Immediately accompanying are tables by sexes showing the final results in grading this group of 746 individuals, arranged by occupations and by mental ages.

TABLE IV  
HAND IRONING  
(Females)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
4	3	1	0	2	33	0	67
5	0	0	0	0	0	0	0
6	13	2	11	0	15	85	0
7	10	6	4	0	60	40	0
8	8	3	3	2	38	37	25
9	9	8	1	0	89	11	0
10	3	2	0	1	67	0	33
11	2	1	1	0	50	50	0
12	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0

G—Good. F—Fair. P—Poor.



TABLE V  
VEGETABLE PARING AND PREPARATION  
(Females)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
4	3	0	2	1	0	67	33
5	7	4	2	1	57	29	14
6	3	2	1	0	67	33	0
7	8	4	4	0	50	50	0
8	3	1	2	0	33	67	0
9	1	1	0	0	100	0	0
10	1	0	1	0	0	100	0
11	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0

G—Good. F—Fair. P—Poor.

TABLE VI  
CARPET RAG SEWING  
(Females)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
4	7	3	3	1	43	43	14
5	12	7	3	2	58	25	17

G—Good. F—Fair. P—Poor.

TABLE VII  
MANGLE OPERATION  
(Females)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
5	4	1	3	0	25	75	0
6	3	3	0	0	100	0	0
7	2	2	0	0	100	0	0
9	2	2	0	0	100	0	0
10	1	1	0	0	100	0	0
11	1	1	0	0	100	0	0

G—Good. F—Fair. P—Poor.

TABLE VIII  
HAND SEWING  
(Females)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
7	6	1	4	1	17	66	17
8	8	1	6	1	13	75	12
9	6	2	2	2	33	33	33
10	9	6	2	1	67	22	11
11	4	3	1	0	75	25	0
13	1	1	0	0	100	0	0

G—Good. F—Fair. P—Poor.



TABLE IX  
BASKETRY  
(Females)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
7	4	0	0	4	0	0	100
8	5	1	3	1	20	60	20
9	4	0	1	3	0	25	75
10	2	2	0	0	100	0	0
12	1	1	0	0	100	0	0

G—Good. F—Fair. P—Poor.

TABLE X  
MACHINE SEWING  
(Females)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
6	2	0	1	1	0	50	50
7	5	1	3	1	20	60	20
8	6	3	3	0	50	50	0
9	6	3	3	0	50	50	0
10	8	3	4	1	38	50	12
11	5	3	0	2	60	0	40
12	5	4	1	0	80	20	0

G—Good. F—Fair. P—Poor.

TABLE XI  
RUG WEAVING  
(Females)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
7	2	1	1	0	50	50	0
8	7	5	2	0	71	29	0
9	2	1	1	0	50	50	0
10	1	1	0	0	100	0	0

G—Good. F—Fair. P—Poor.

TABLE XII  
HAND WEAVING, KNITTING, MISCELLANEOUS HANDWORK  
(Females)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
6	13	2	8	3	15	62	23
7	7	1	5	1	14	72	14
8	9	4	3	2	45	33	22
9	1	0	1	0	0	100	0

G—Good. F—Fair. P—Poor.

TABLE XIII  
CLOTHES FOLDING  
(Females)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
6	4	4	0	0	100	0	0
7	12	5	7	0	42	58	0
8	1	1	0	0	100	0	0

G—Good. F—Fair. P—Poor.

TABLE XIV  
COAL HANDLING  
(Males)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
4	6	1	1	4	17	17	66
6	3	0	1	2	0	33	67
7	4	1	1	2	25	25	50
9	2	1	1	0	50	50	0

G—Good. F—Fair. P—Poor.

TABLE XV  
ROPE BRAIDING  
(Males)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
4	1	1	0	0	100	0	0
5	3	1	1	1	33	33	33
6	2	1	1	0	50	50	0
7	2	1	0	1	50	0	50
8	2	0	2	0	0	100	0
9	1	1	0	0	100	0	0

G—Good. F—Fair. P—Poor.

TABLE XVI  
DOMESTIC WORK  
(Males)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
4	10	0	9	1	0	90	10
5	18	7	9	2	39	50	11
6	24	9	15	0	37	63	0
7	22	10	8	4	46	36	18
8	18	9	8	1	50	44	6
9	3	2	1	0	67	33	0
10	5	4	1	0	80	20	0
11	1	1	0	0	100	0	0
13	1	1	0	0	100	0	0

G—Good. F—Fair. P—Poor.

TABLE XVII  
STABLE WORK  
(Males)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
4	3	0	3	0	0	100	0
5	2	0	2	0	0	100	0
6	4	0	2	2	0	50	50
7	6	1	4	1	17	66	17
8	3	1	1	1	33	33	33

G—Good. F—Fair. P—Poor.

TABLE XVIII  
CLOTHES SORTING  
(Males)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
4	1	0	0	1	0	0	100
5	3	0	2	1	0	67	33
7	1	0	0	1	0	0	100
10	1	1	0	0	100	0	0

G—Good. F—Fair. P—Poor.

TABLE XIX  
FREIGHT HANDLING  
(Males)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
4	1	0	1	0	0	100	0
5	1	1	0	0	100	0	0
6	1	1	0	0	100	0	0
7	1	1	0	0	100	0	0
9	1	1	0	0	100	0	0

G—Good. F—Fair. P—Poor.

TABLE XX  
BRUSH MAKING  
(Males)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
4	1	1	0	0	100	0	0
5	8	2	3	3	25	37	38
6	4	3	0	1	75	0	25
7	5	3	2	0	60	40	0
8	6	6	0	0	100	0	0
9	5	4	1	0	80	20	0

G—Good. F—Fair. P—Poor.

TABLE XXI  
NET MAKING  
(Males)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
5	5	4	0	1	80	0	20
6	4	2	2	0	50	50	0
7	4	3	1	0	75	25	0
8	4	4	0	0	100	0	0
9	6	6	0	0	100	0	0
10	2	2	0	0	100	0	0

G—Good. F—Fair. P—Poor.

TABLE XXII  
CHAIR CANING  
(Males)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
5	1	1	0	0	100	0	0
8	4	3	1	0	75	25	0
9	2	2	0	0	100	0	0
12	1	1	0	0	100	0	0

G—Good. F—Fair. P—Poor.

TABLE XXIII  
LAUNDRY WORK  
(Males)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
5	1	0	1	0	0	100	0
6	1	1	0	0	100	0	0
7	2	1	1	0	50	50	0
8	3	1	2	0	33	67	0
10	2	2	0	0	100	0	0

G—Good. F—Fair. P—Poor.

TABLE XXIV  
CINDER HANDLING  
(Males)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
5	3	2	1	0	67	33	0
6	1	0	1	0	0	100	0

G—Good. F—Fair. P—Poor.

TABLE XXV  
GARBAGE HANDLING  
(Males)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
5	2	1	1	0	50	50	0

G—Good. F—Fair. P—Poor.

TABLE XXVI  
GARDEN WORK  
(Males)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
5	7	1	5	1	14	72	14
6	5	0	5	0	0	100	0
7	5	1	4	0	20	80	0
8	2	1	1	0	50	50	0
9	1	1	0	0	100	0	0
10	3	3	0	0	100	0	0

G—Good. F—Fair. P—Poor.

TABLE XXVII  
FARM WORK  
(Males)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
6	2	0	2	0	0	100	0
7	3	1	2	0	33	67	0
8	2	0	1	1	0	50	50
9	4	1	3	0	25	75	0
10	3	3	0	0	100	0	0

G—Good. F—Fair. P—Poor.

TABLE XXVIII  
SHOE REPAIRING  
(Males)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
6	1	0	1	0	0	100	0
7	1	0	1	0	0	100	0
9	1	1	0	0	100	0	0
10	1	1	0	0	100	0	0

G—Good. F—Fair. P—Poor.

TABLE XXIX  
DAIRY WORK  
(Males)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
6	3	1	2	0	33	67	0
7	2	0	0	2	0	0	100
9	3	1	2	0	33	67	0
10	5	3	2	0	60	40	0

G—Good. F—Fair. P—Poor.

TABLE XXX  
GREENHOUSE WORK  
(Males)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
11	1	0	1	0	0	100	0

G—Good. F—Fair. P—Poor.



TABLE XXXI  
LAWN WORK  
(Males)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
6	2	1	1	0	50	50	0
7	1	1	0	0	100	0	0
11	1	1	0	0	100	0	0

G—Good. F—Fair. P—Poor.

TABLE XXXII  
HELPING BLACKSMITH  
(Males)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
8	1	1	0	0	100	0	0
10	1	1	0	0	100	0	0

G—Good. F—Fair. P—Poor.

TABLE XXXIII  
MATTRESS REPAIRING  
(Males)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
8	2	2	0	0	100	0	0

G—Good. F—Fair. P—Poor.

TABLE XXXIV  
HELPING PAINTER  
(Males)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
8	1	1	0	0	100	0	0

G—Good. F—Fair. P—Poor.

TABLE XXXV  
FIRING KITCHEN RANGE  
(Males)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
9	1	0	1	0	100	0	0

G—Good. F—Fair. P—Poor.

TABLE XXXVI  
PRINTING  
(Males)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
10	1	0	1	0	0	100	0

G—Good. F—Fair. P—Poor.

TABLE XXVII  
CARRYING MAIL  
(Males)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
10	1	1	0	0	100	0	0

G—Good. F—Fair. P—Poor.

TABLE XXXVIII  
MENTAL 4's  
(Females)

Kind of Work	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
Domestic Work	9	0	3	6	0	33	67
Hand Ironing	3	1	0	2	33	0	67
Vegetable Paring and Preparation	3	0	2	1	0	67	33
Carpet Rag Sewing	7	3	3	1	43	43	14

G—Good. F—Fair. P—Poor.

TABLE XXXIX  
MENTAL 5's  
(Females)

Kind of Work	Total Number of Cases	Number grading			Percentage Grading		
		G	F	P	G	F	P
Domestic Work	21	4	17	0	19	81	0
Mangle Operation	4	1	3	0	25	75	0
Vegetable Paring and Preparation	7	4	2	1	57	29	14
Carpet Rag Sewing	12	7	3	2	58	25	17

G—Good. F—Fair. P—Poor.

TABLE XL  
MENTAL 6's  
(Females)

Kind of Work	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
Domestic Work	30	8	13	9	27	43	30
Hand Sewing	0	0	0	0	0	0	0
Machine Sewing	2	0	1	1	0	50	50
Hand Ironing	13	2	11	0	15	85	0
Basketry	0	0	0	0	0	0	0
Mangle Operation	3	3	0	0	100	0	0
Vegetable Paring and Preparation	3	2	1	0	67	33	0
Rug Weaving	0	0	0	0	0	0	0
Hand Weaving, Knitting, Miscellaneous Hand Work	13	2	8	3	15	62	23
Clothes Folding	4	4	0	0	100	0	0

G—Good. F—Fair. P—Poor.

TABLE XLI  
MENTAL 7's  
(Females)

Kind of Work	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
Domestic Work	34	19	11	4	56	32	12
Hand Sewing	6	1	4	1	17	66	17
Machine Sewing	5	1	3	1	20	60	20
Hand Ironing	10	6	4	0	60	40	0
Basketry	4	0	0	4	0	0	100
Mangle Operation	2	2	0	0	100	0	0
Vegetable Paring and Preparation	8	4	4	0	50	50	0
Rug Weaving	2	1	1	0	50	50	0
Hand Weaving, Knitting, Miscellaneous Hand Work	7	1	5	1	14	72	14
Clothes Folding	12	5	7	0	42	58	0

G—Good. F—Fair. P—Poor.

TABLE XLII  
MENTAL 9's  
(Females)

Kind of Work	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
Domestic Work	43	21	13	4	49	42	9
Hand Sewing	8	1	6	1	13	75	12
Machine Sewing	6	3	3	0	50	50	0
Hand Ironing	8	3	3	2	38	37	25
Basketry	5	1	3	1	20	60	20
Mangle Operation	0	0	0	0	0	0	0
Vegetable Paring and Preparation	3	1	2	0	33	67	0
Rug Weaving	7	5	2	0	71	29	0
Hand Weaving, Knitting, Miscellaneous Hand Work	9	4	3	2	45	33	22
Clothes Folding	1	1	0	0	100	0	0

G—Good. F—Fair. P—Poor.

TABLE XLIII  
MENTAL 9's  
(Females)

Kind of Work	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
Domestic Work	31	18	13	0	58	42	0
Hand Sewing	6	2	2	2	33	33	33
Machine Sewing	6	3	3	0	50	50	0
Hand Ironing	9	8	1	0	89	11	0
Basketry	4	0	1	3	0	25	75
Mangle Operation	2	2	0	0	100	0	0
Vegetable Paring and Preparation	1	1	0	0	100	0	0
Rug Weaving	2	1	1	0	50	50	0
Hand Weaving	1	0	1	0	0	100	0

G—Good. F—Fair. P—Poor.

TABLE XLIV  
MENTAL 10's  
(Females)

Kind of Work	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
Domestic Work	15	9	6	0	60	40	0
Hand Sewing	9	6	2	1	67	22	11
Machine Sewing	8	3	4	1	38	50	12
Hand Ironing	3	2	0	1	67	0	33
Basketry	2	2	0	0	100	0	0
Mangle Operation	1	1	0	0	100	0	0
Vegetable Paring and Preparation	1	0	1	0	0	100	0
Rug Weaving	1	1	0	0	100	0	0

G—Good. F—Fair. P—Poor.

TABLE XLV  
MENTAL 11's  
(Females)

Kind of Work	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
Domestic Work	8	7	1	0	87	13	0
Hand Sewing	4	3	1	0	75	25	0
Machine Sewing	5	3	0	2	60	0	40
Hand Ironing	2	1	1	0	50	50	0
Basketry	0	0	0	0	0	0	0
Mangle Operation	1	1	0	0	100	0	0
Vegetable Paring and Preparation	0	0	0	0	0	0	0
Rug Weaving	0	0	0	0	0	0	0

G—Good. F—Fair. P—Poor.

TABLE XLVI  
MENTAL 12's  
(Females)

Kind of Work	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
Domestic Work	1	1	0	0	100	0	0
Machine Sewing	5	4	1	0	80	20	0
Basketry	1	1	0	0	100	0	0

G—Good. F—Fair. P—Poor.

TABLE XLVII  
MENTAL 13's  
(Females)

Kind of Work	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
Domestic Work	1	1	0	0	100	0	0
Hand Sewing	1	1	0	0	100	0	0

G—Good. F—Fair. P—Poor.

TABLE XLVIII  
MENTAL 4's  
(Males)

Kind of Work	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
Coal Handling	6	1	1	4	17	17	66
Domestic Work	10	0	9	1	0	90	10
Rope Braiding	1	1	0	0	100	0	0
Stable Work	3	0	3	0	0	100	0
Clothes Sorting	1	0	0	1	0	0	100
Freight Handling	1	0	1	0	0	100	0
Brush Making	1	1	0	0	100	0	0

G—Good. F—Fair. P—Poor.

TABLE XLIX  
MENTAL 5's  
(Males)

Kind of Work	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
Domestic Work	18	7	9	2	39	50	11
Rope Braiding	3	1	1	1	33	33	33
Stable Work	2	0	2	0	0	100	0
Clothes Sorting	3	0	2	1	0	67	33
Freight Handling	1	1	0	0	100	0	0
Brush Making	8	2	3	3	25	37	38
Garbage Handling	2	1	1	0	50	50	0
Net Making	5	4	0	1	80	0	20
Chair Caning	1	1	0	0	100	0	0
Laundry Work	1	0	1	0	0	100	0
Cinder Handling	3	2	1	0	67	33	0
Garden Work	7	1	5	1	14	72	14

G—Good. F—Fair. P—Poor.



TABLE L  
MENTAL 6's  
(Males)

Kind of Work	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
Coal Handling	3	0	1	2	0	33	67
Domestic Work	24	9	15	0	37	63	0
Rope Braiding	2	1	1	0	50	50	0
Stable Work	4	0	2	2	0	50	50
Freight Handling	1	1	0	0	100	0	0
Brush Making	4	3	0	1	75	0	25
Net Making	4	2	2	0	50	50	0
Laundry Work	1	1	0	0	100	0	0
Cinder Handling	1	0	1	0	0	100	0
Garden Work	5	0	5	0	0	100	0
Farm Work	2	0	2	0	0	100	0
Shoe Repairing	1	0	1	0	0	100	0
Dairy Work	3	1	2	0	33	67	0
Lawn Work	2	1	1	0	50	50	0

G—Good. F—Fair. P—Poor.

TABLE LI  
MENTAL 7's  
(Males)

Kind of Work	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
Coal Handling	4	1	1	2	25	25	50
Domestic Work	22	10	8	4	46	36	18
Rope Braiding	2	1	0	1	50	0	50
Stable Work	6	1	4	1	17	66	17
Clothes Sorting	1	0	0	1	0	0	100
Freight Handling	1	1	0	0	100	0	0
Brush Making	5	3	2	0	60	40	0
Net Making	4	3	1	0	75	25	0
Laundry Work	2	1	1	0	50	50	0
Garden Work	5	1	4	0	20	80	0
Farm Work	3	1	2	0	33	67	0
Shoe Repairing	1	0	1	0	0	100	0
Dairy Work	2	0	0	2	0	0	100
Lawn Work	1	1	0	0	100	0	0

G—Good. F—Fair. P—Poor.

TABLE LII  
MENTAL 8's  
(Males)

Kind of Work	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
Domestic Work	18	9	8	1	50	44	6
Rope Braiding	2	0	2	0	0	100	0
Stable Work	3	1	1	1	33	33	33
Brush Making	6	6	0	0	100	0	0
Net Making	4	4	0	0	100	0	0
Chair Caning	4	3	1	0	75	25	0
Laundry Work	3	1	2	0	33	67	0
Garden Work	2	1	1	0	50	50	0
Farm Work	2	0	1	1	0	50	50
Helping Blacksmith	1	1	0	0	100	0	0
Mattress Repairing	2	2	0	0	100	0	0
Helping Painter	1	1	0	0	100	0	0

G—Good. F—Fair. P—Poor.

TABLE LIII  
MENTAL 9's  
(Males)

Kind of Work	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
Coal Handling	2	1	1	0	50	50	0
Domestic Work	3	2	1	0	67	33	0
Rope Braiding	1	1	0	0	100	0	0
Freight Handling	1	1	0	0	100	0	0
Brush Making	5	4	1	0	80	20	0
Net Making	6	6	0	0	100	0	0
Chair Caning	2	2	0	0	100	0	0
Garden Work	1	1	0	0	100	0	0
Farm Work	4	1	3	0	25	75	0
Shoe Repairing	1	1	0	0	100	0	0
Dairy Work	3	1	2	0	33	67	0
Firing Kitchen Range	1	0	1	0	0	100	0

G—Good. F—Fair. P—Poor.

TABLE LIV  
MENTAL 10's  
(Males)

Kind of Work	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
Domestic Work	5	4	1	0	80	20	0
Clothes Sorting	1	1	0	0	100	0	0
Net Making	2	2	0	0	100	0	0
Laundry Work	2	2	0	0	100	0	0
Garden Work	3	3	0	0	100	0	0
Farm Work	3	3	0	0	100	0	0
Shoe Repairing	1	1	0	0	100	0	0
Dairy Work	5	3	2	0	60	40	0
Helping Blacksmith	1	1	0	0	100	0	0
Printing	1	0	1	0	0	100	0
Carrying Mail	1	1	0	0	100	0	0

G—Good. F—Fair. P—Poor.

TABLE LV  
MENTAL 11's  
(Males)

Kind of Work	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
Domestic Work	1	1	0	0	100	0	0
Greenhouse Work	1	0	1	0	0	100	0
Lawn Work	1	1	0	0	100	0	0

G—Good. F—Fair. P—Poor.

TABLE LV1  
MENTAL 12's  
(Males)

Kind of Work	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
Chair Caning	1	1	0	0	100	0	0

G—Good. F—Fair. P—Poor.

TABLE LVII  
MENTAL 13's  
(males)

Kind of Work	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
Domestic Work	1	1	0	0	100	0	0

G—Good. F—Fair. P—Poor.

## SECTION V

## ANALYSIS OF RESULTS BY MENTAL AGES

In the different kinds of employment for females, mental 4's and 5's reached their highest percentage of *Good* in carpet rag sewing. Here, 58% in a total number of 12 attained this grade. These mental ages also did domestic work, hand ironing, vegetable paring and preparation, and work about the mangles in the laundry. In all this work they made a poor showing, except in vegetable preparation, where, under close supervision, 57% in a total number of 7 mental 5's were *Good*. The mental 6's made a good showing at mangle work, which is very simple, and vegetable paring and preparation; 85% out of a total of 13 showed *Fair* in hand ironing; 62% in a total of 13 were fair in simple handwork, such as knitting and hand weaving. The mental 7's made a good showing at mangle work, and at this mental age the females began to make a showing at domestic work. They were poor at hand sewing. The mental 8's were 50% *Good* at domestic work and machine sewing; 71% showed *Good* in rug weaving, but only 7 were involved. In mental age 9, domestic work rose to 58%, and hand ironing to 89%. Machine sewing remained at 50%. Basketry was poorly done by both mental 8's and 9's. At the mental age of 10 and 11 a good showing was made in domestic work, hand sewing, machine sewing, hand ironing, basketry, and rug weaving. The number of mental 12's and 13's was small. They did domestic work, machine sewing, hand sewing, and basketry, well.

The work among the males covered a wider range of tasks, but in many instances involved a very few persons. The mental 4's and 5's made a fair showing in rope braiding, stable work, and brush making. The stable work was of the simplest kind, such as sweeping and pushing a wheel barrow. The mental 6's and 7's were *Fair* to *Good* at rope braiding, freight handling, brush making, net making, laundry work, cinder handling, and the simplest tasks of garden, farm, and lawn work; 17 out of 18 mental 8's were *Fair* or *Good* at domestic work. This age showed 100% *Good* at brush making, net making, and mattress repairing. They were 75% *Good* at chair caning. There were only 30 mental 9's tested of whom 21 were *Good*, 9 *Fair*, and none *Poor*. Their tasks included coal handling,

domestic work, rope braiding, freight handling, brush making, net making, chair caning, garden work, farm work, shoe repairing, dairy work, and firing kitchen range. Practically all of the mental 10's, of whom 25 were graded, were *Good*, a few *Fair*, and none *Poor*. Their tasks corresponded to those of the mental 9's. There were only 5 among the mental 11's, 12's and 13's. Their showing was *Good*, but not more than one was represented in each of the different kinds of employment.

## SECTION VI

## EXPERIMENT IN COOKING AND SERVING

In domestic science, 220 females were placed in classes of 12 to 15 members to the section, meeting once a week in a two-hour period. Of these 187 were above 15 years of age and classed as adult feeble minded. They were included in the analysis of the various occupational tasks described heretofore. In the domestic science classes there was an opportunity to test the children on a set problem, as all the different sections had the same things to do in any one week. The problem, of course, was changed from week to week for all and consisted of simple cooking, involving the preparation of two or three items each class period, serving, and taking care of kitchen and dining

TABLE LVIII  
COOKING AND SERVING  
(220 adults and children—Female)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
Mental 4's	1	0	0	1	0	0	100
Mental 5's	1	0	0	1	0	0	100
Mental 6's	24	3	7	14	13	29	58
Mental 7's	36	13	9	9	50	25	25
Mental 8's	56	41	10	5	73	18	9
Mental 9's	48	38	8	2	79	17	4
Mental 10's	30	26	2	2	87	6½	6½
Mental 11's	17	16	1	0	94	6	0
Mental 12's	5	5	0	0	100	0	0
Mental 13's	2	2	0	0	100	0	0

G—Good. F—Fair. P—Poor.

room equipment. After the class had been meeting for three months the teacher in charge, assisted by the school principal, entered grades on cards furnished for that purpose, a copy of which appears below. Neither the chronological nor the mental age was accessible to those giving the grades. These cards were turned in and all records connected with the grading were destroyed. A month later grades were again recorded without reference to the first set of cards. From the two grades thus recorded, a third or average grade was entered on a third set of cards. The chronological and mental ages were then filled in and from these cards the results of the tests were tabulated. The cards of the children under 15 years of age were separated from the others and the results of their tests are shown in a tabulation following that of the results for the adult feeble minded.

TABLE LIX  
COOKING AND SERVING  
(187 adults—Female)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
Mental 4's	1	0	0	1	0	0	100
Mental 5's	1	0	0	1	0	0	100
Mental 6's	19	2	6	11	10½	31½	58
Mental 7's	32	15	8	9	47	25	28
Mental 8's	48	34	10	4	71	21	8
Mental 9's	39	32	6	1	82	15½	2½
Mental 10's	26	22	2	2	85	7½	7½
Mental 11's	16	15	1	0	94	6	0
Mental 12's	4	4	0	0	100	0	0
Mental 13's	1	1	0	0	100	0	0

G—Good. F—Fair. P—Poor.



## Copy of Card Used in Grading Class in Cooking and Serving

Name \_\_\_\_\_  
 Age \_\_\_\_\_  
 Mental Age \_\_\_\_\_  
 Date \_\_\_\_\_

## Grade

1. Cleanliness of  
     person  
     utensils  
     room and equipment  
     food handling (10%) \_\_\_\_\_  
 2. Neatness (10%) \_\_\_\_\_  
 3. Interpretation of directions (15%) \_\_\_\_\_  
 4. Quality of finished product (65%) \_\_\_\_\_  
 Total grade \_\_\_\_\_

## Rating Used

81-100%      Good G  
 61- 80%      Fair F  
 0- 60%      Poor P

TABLE LX

COOKING AND SERVING

(33 children under 15—Female)

Mental Age	Total Number of Cases	Number Grading			Percentage Grading		
		G	F	P	G	F	P
Mental 6's	5	1	1	3	20	20	60
Mental 7's	4	3	1	0	75	25	0
Mental 8's	8	7	0	1	88	0	12
Mental 9's	9	6	2	1	67	22	11
Mental 10's	4	4	0	0	100	0	0
Mental 11's	1	1	0	0	100	0	0
Mental 12's	1	1	0	0	100	0	0
Mental 13's	1	1	0	0	100	0	0

G—Good.      F—Fair.      P—Poor.

The experiment in cooking and serving differed from the work in the industrial and other departments of the institution in several particulars. The pupils were all of one sex. They were taken from the brighter section of the population, as required by the very nature of the problem, the majority ranging in mental age from 7 to 11 years. None was over 30 years of age and the number in the group was so large that it was possible to have many cases of each mental age represented. The group might be considered fairly homogeneous. There were differences, of course, in the previous experience of the members of the classes, but this might be disregarded, because the experiment covered a period of months and new and different problems were presented from week to week. In these classes the same persons instructed, observed, and graded the members, and all the conditions of the experiment bearing on the problem were controllable. The children under 15 years of age made a little better showing than the adults, although the latter class had the advantage of more experience. This is accounted for by the fact that the I. Q. (intelligence quotient) of the children is higher with a given mental age. In the case of the adults the mental age given in the table stands for a definite I. Q. For example, a mental 9 means 9/15 or I. Q. .60. In the case of the children a given mental age does not stand for a definite I. Q., the latter varying with the chronological age of the child. A mental 9 might mean an I. Q. of 9/10, 9/11, 9/12 and so on up to 9/15, which shows a variation from I. Q. .90 to .60. The tables for 220 adults and children and for the separate groups show an increasing efficiency as the scale of mental ages ascends. Mental 8's, 9's, 10's, 11's, 12's and 13's make a very good showing in the preparation and serving of food. The teachability of the higher grade feeble-minded for this and similar work tends to deceive the public as to their capacity for a full share of social responsibility. It does not follow that a high grade feeble-minded woman who is a passable or even good cook and housekeeper is capable of properly rearing a family, nor does the offspring escape the taint of heredity. Countless thousands of high grade feeble-minded females, both married and unmarried, who appear fairly efficient at their tasks, are bringing their kind into the world and constitute the greatest menace to the social structure.



## SECTION VII

### CONCLUSIONS

An examination of the data, both in the grading of males and females in occupations and in the grading of the domestic science classes, reveals an almost startling confirmation of the intelligence tests. This is best seen in the tables arranged under the heads of the different kinds of employment, where the mental ages are seen in comparison at the same kind of employment. In these tables, under *Percentage Grading* the first column G, *Good*, is ascending, the second and third columns, F, *Fair*, P, *Poor*, are descending. In general, the descending and ascending scales are gradual. In instances where they are not, or where wide variation appears, it is due to the fewness of the persons of that age group tested. Percentages have little value when applied to only one, two, or three persons. Where a considerable number is involved, there is practically no variation in the rise or fall of the percentages in accordance with the mental ages. In grading the classes in cooking and serving, the result is clear cut, for here a large number of individuals were working on the same problem for over a period of several months, under exactly the same conditions.

In cooking and serving, adult females with a mental age of 8 years and up make a very fair showing under supervision. In higher range of ages, from mental 10 to 13, less supervision is required to attain the same degree of proficiency. Initiative is lacking.

The results in these surveys seem to indicate that intelligence tests carefully and skillfully applied would constitute an index to the efficiency that could be expected in industry from adults testing under 13 years mentally.