

Outline of
MENTAL DEFICIENCY

*For Social Workers, Teachers,
and Others in Minnesota*

By
F. KUHLMANN
Director, Research Bureau
State Board of Control

1925
Saint Paul, Minnesota

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Preface

THIS pamphlet has three objectives. The first is to give practical suggestions for those who work with mental defectives in Minnesota. These largely take the form of rules of procedure, adapting them to the present laws and provisions for mental defectives as we have them. The second object is to re-state some of the problems of mental deficiency in terms of the facts more recently established in regard to its frequency and its relationships to various other social problems. The facts indicate that mental deficiency is from five to ten times as frequent as was formerly supposed, and that it is responsible for a variety of social ills to a degree heretofore quite unsuspected. As with all startling revelations that upset established habits of thought, they are likely to be discredited for some time to come in some quarters. Some have done so because they are based on mental tests, in which they do not believe because there are some untrustworthy tests. Others have refused to accept them simply because they are so out of harmony with what they have been accustomed to believe. Statistics and argument, which we have in abundance, agreement among the few authorities who are really in position to speak authoritatively, are not convincing, especially not to the great majority of laymen who cannot be expected to master the technical matters involved. Actual firsthand observation of only a few cases would be far more effective with all who can approach the question open mindedly. This is my third objective. Any real progress rests absolutely on its attainment. To those who have mental defectives in charge, and others in possession of the facts, I appeal for an effort to connect the public with its mental defectives. To create sound public judgment on any question is a slow process, and impossible with no more public interest than there is at present. That interest is lacking because the average citizen has seen nothing in which to be interested.

F. K.

January, 1925

I. THE ROLE OF THE SOCIAL WORKER AND TEACHER

OF the several classes of dependents to whom the State has come to give aid none have been discussed as much and fared as badly as have the mentally defective. A brief sketch of the situation as to the lack of progress made and the cause of our failure will prepare the way for a statement of what social workers and teachers can do about it.

A. PROGRESS IN PROVIDING FOR MENTAL DEFECTIVES

1. *State Institutions.*—Three quarters of a century ago Massachusetts established the first school for feeble-minded in the United States. Minnesota's school at Faribault began in 1879. Throughout the history of these institutions, we have heard the cry of the alarming rate at which the number of inmates has been increasing, and of the ever increasing menace of the feeble-minded. Both statements need careful consideration. The following figures¹ show that the increase in number of inmates has taken place at a greater rate than has the increase in the general population.

		1890	1904	1910	1916	1917	1918	1920
U. S.	Number inmates.....	4001	15599	20731	34137	36814	39381	40519
	Per cent of population...	.006	.019	.023	.034	.037	.039	.038
Minn.	Number inmates.....	300	888	1194	1537	1372	1458	1502
	Per cent of population...	.023	.047	.058	.068	.060	.063	.063

In 1890 the United States had six one-thousands of one per cent of its total population in institutions for the feeble-minded. In 1920, this percentage is six times as large. Minnesota's institution shows a lower rate of increase than the United States at a whole, but the same as other states of the Middle West taken by themselves. The greater rate of increase for the United States as a whole is due to the addition of new

¹Quoted from the following articles in *Mental Hygiene*:

Fernald, W. E. The growth of provisions for the feeble-minded in the United States. Vol. I, Jan., 1917.

Pollock, H. M. and Furbush, Edith M. Annual census of the insane, feeble-minded, epileptic and inebriates in institutions in the United States, Jan. 1, 1918. Vol. III, Jan., 1919.

Pollock, H. M. and Furbush, Edith M. Patients with mental disease, mental defect, epilepsy, alcoholism and drug addiction in institutions in the United States, Jan., 1920. Vol. V, Jan., 1921.

Populations between census reports were estimated to get percentages given.

institutions in states that were without any previously. The Minnesota institution reached its maximum relative development in 1916. Since then the per cent of its population that was in its School for the Feeble-Minded has declined.

This does not necessarily mean that the percentage of the total population in the United States or in Minnesota that is feeble-minded has been increasing. There is no proof, or even good evidence, that there is a higher percentage of mental defectives now than there was a century ago. The increasing percentage of the general population found in institutions for the feeble-minded is due to many factors. Any one of the following has probably contributed more to this increase than has any increase in the percentage of existing feeble-minded.

First, the standards of social conduct set up by any community have risen. Poverty, low standards of living, delinquency, immorality, improper bringing up of children, all closely associated with mental deficiency, are no longer tolerated by society, as they once were. The mental defective is discovered by these short-comings.

Second, we have been changing rapidly from a rural to an urban people, and the mental defective fares better in rural surroundings.

Third, the demand for manual and all kinds of unskilled labor has decreased through the introduction of machinery, which has decreased the mental defective's opportunity for employment in work he is able to do more or less satisfactorily.

Fourth, school standards have risen. Children are graded better and mental defectives are recognized by their failure in school work.

Fifth, the use of mental tests has added greatly to the number found to be mentally defective.

Sixth, social agencies have increased much in number and activity, and have brought mental defectives to light in increasing numbers.

These factors have all had one result in common. They have all helped to find the mental defectives that existed and resulted in their being recognized as such, by at least the agencies that have come in direct contact with them. Mental defectives have been found at an increasing rate, and faster than institution facilities for housing them have increased. The relative number may not be larger now than formerly.

At the same time, the contention that their menace to society is increasing at a rapid rate is entirely correct. They have become less and less able to live up to social requirements, because these requirements have

risen. The first four of the six factors just named all involve increased requirements from the mental defective.

2. *Special Classes for Subnormals in the Schools.*—In 1915 the Minnesota State Legislature provided for a state aid to be received by any local school for the maintenance of special classes for certain children, including especially the mental defective. This aid is one hundred dollars per child per year, much larger than any similar state aid elsewhere at the time. Very little had been done with special classes before this date. As the State Department of Education now organizes them, children of idiot and imbecile grade are excluded; morons, and some of borderline intelligence are admitted. The development of these classes has been very rapid as compared with what it has been in other states, and Minnesota easily leads all other states in the percentage of its school population now in these special classes. At the close of the school year of 1923-24, forty-five towns had special classes for mental defectives, with a total enrollment of 2611. But since there are about 20,000¹ school children of moron grade in the State that qualify for these classes, the present achievement still represents only a very small beginning. There is opportunity to increase the present enrollment to a very much larger figure. Most of the towns that maintain a special class have many more children that should be in a special class who are not provided for. But it will be more difficult to provide such classes for rural schools, and smaller towns, because on the whole, there must be a total school population of several hundred before there are likely to be enough mentally defective children to form a special class.

3. *Extra-Institutional Guardianship of Mental Defectives.*—Until about ten years ago, the only accepted method of caring for mental defectives was that provided by the special institution. Recently extra-institutional care for certain selected cases of the higher grades has been practiced successfully by a few institutions, and by some public schools. The details of this method have varied greatly, and much is yet to be worked out. Since 1917 the Minnesota law has committed mental defectives to the guardianship of the State Board of Control instead of directly to the School for Feeble-Minded. A department for mental

¹Throughout this pamphlet estimates of numbers and percentages are based on a total population in Minnesota, of 2,500,000, a total school population of 500,000, and four per cent of both the school and general population are assumed to be feeble-minded, when a feeble-minded person is defined as one with an intelligence quotient of less than .75.

defectives in the Children's Bureau under the Board of Control has been established to have direct charge of this extra-institutional guardianship. On July first, 1924, two hundred and fifty cases were taken care of in this way. The department, however, is not at present equipped with means of handling a much larger number. The present indications are that extra-institutional guidance and control of a large percentage of those of moron grade will become the generally accepted method. If properly brought up and trained from early childhood, probably all of moron grade could be managed in this way.

4. *Material Provisions and Laws.*—The Legislature of 1923 authorized the establishment of the second school for feeble-minded, similar in character to the one at Faribault. This is located at Cambridge on three hundred and twenty acres of land, and the first cottage for inmates will be ready in 1925. The school at Faribault has 1145 acres of land, and buildings to accomodate about 1,900 inmates. In round numbers Minnesota has provided for the housing of about 2,000 cases in institutions. It can give extra-institutional guidance to a few hundred more, and it pays for the training in special classes in the public school for another 2,000. In a word, it has made provisions for about 4,500 cases. This costs the state a little over \$700,000 a year.

The more important laws affecting the feeble-minded are as follows: They will be given in more detail and discussed later. (1) Providing for compulsory commitment of feeble-minded to the guardianship of the State Board of Control. (2) Making the marriage of a feeble-minded person illegal. (3) Permitting extra-institutional guardianship. All three are practically inoperative because a great many more things are needed to make them effective, and all these essentials are lacking.

B. MEANING OF THE PROGRESS MADE

The practical significance of progress made in any endeavor lies not in the mere fact that we are moving ahead, but in the rate at which we are approaching our goal. If we set our goal in providing for mental defectives at adequate provision for apporximately all mental defectives, how long will it take us to reach that end, if we continue at the rate of progress maintained in the past? Seventy-five years of providing for the feeble-minded by the states has placed .038 of one per cent of the general population of the United States in institutions for the feeble-minded. At this rate, it would take the following number of years to get one, two, or four per cent of the general population into these institutions.

Per cent	Number of years
1 -----	2,000
2 -----	4,000
4 -----	8,000

Minnesota's rate of progress since its institution at Faribault was established, would require 635 years for one per cent, and 2,540 years for four per cent. We do not know exactly what percentage of the general population is feeble-minded, that is, needs some kind of outside guardianship, but we know that it is much above one per cent, and probably near four per cent—more likely above than below. Put in another form for Minnesota, the following percentages of the existing feeble-minded are under the guardianship of the State Board of Control, assuming that one, two, or four per cent of the State's general population is feeble-minded.

Per cent of population feeble-minded	Per cent under guardianship
1 -----	6.6
2 -----	3.3
4 -----	1.7

In other words, in forty-five years Minnesota has reached the point where she is placing 1.7 per cent of her feeble-minded under guardianship. For another 1.7 per cent she is providing training in the special classes of the public schools. I have already noted that her important laws concerning the feeble-minded are practically inoperative. This is especially true of the anti-marriage law, the most fundamental and important of all. *This is not progress, but rather convincing proof that something absolutely essential for any real progress is lacking.*

C. THE CAUSE OF FAILURE

A great many things are needed. It requires a complex machinery to solve the problems of mental deficiency. The things needed are of the nature of parts of a machine which will not function as long as any single part is lacking or defective. We have many, perhaps most, of the parts, but no machine. It seems to be peculiarly difficult to learn this fact. As a result, we have had a number of isolated measures, each regarded more or less as an all sufficient remedy. Our institutions are too small. Build them larger and that will solve our problem. Parents refuse to send their mental defectives to state institutions. Get a compulsory commitment law, and there will be no more trouble from that source. Mental deficiency is chiefly hereditary. Get an anti-marriage

law, and most mental defectives will disappear automatically in a generation or two. Special training at the right age will make mental defectives capable of earning their living when grown up. Supply it for them in the public schools. But if the Minnesota institution had been larger, it would at its worst period have received only a few hundred more than it did, for no larger number than this was ever on the waiting list, unable to enter because of lack of room. By a larger institution the 1.7 per cent of the existing feeble-minded in the State that are under guardianship might have been increased to two per cent under guardianship—not a very notable achievement. We, as in other states, have a compulsory commitment law, but the law has resulted in no noticeable difference in the number of commitments. The anti-marriage law has existed for a number of years in Minnesota, but in and by itself, it has probably not yet prevented a dozen mental defectives from marrying. Our special classes provide some training for a few mental defectives in the public schools. Assuming that this training does enable them to earn their living, guardianship is nevertheless needed on reaching maturity. But at this age, the schools withdraw all assistance.

The chief single cause of the failure to make progress has been the absence of an informed public. The average citizen still knows practically nothing about mental deficiency. He does not know anything about the various ways in which the mental defective is a detriment to the community. He does not know that it costs him money to have him about, or that he has been, or is likely to be, a victim of some of the mental defective's delinquencies. Most of all, he does not recognize the mental defective, unless he is of quite low grade, when he sees him about, and thus loses the opportunity to get first-hand information.

Without a knowledge of needs, there is no public demand for provisions. There is always likely to be opposition to state expenditures for which the general public sees no great necessity. On the other hand, costs have rarely been an obstacle in the way of getting things when the public has really wanted them. Of this there are plenty illustrations. Just at present the country is giving hundreds of millions for good roads. Varying in different states, the public is paying from ten to a hundred times as much to get good roads as for mental deficiency. It is doing so because there is a clear knowledge of the fact that good roads are lacking, and that it pays to build them. The country as a whole is also providing much better for the insane than for the feeble-minded. Every layman readily recognizes the seriously insane by their conduct. There

is also the general belief that all insane are dangerous to have at large. Hence, the willingness of the public to pay whatever is necessary to keep them all in asylums. There are relatively very few uncared for. The number of insane is probably less than the number of mental defectives. It is surely not larger. But the percentage of the population in the United States found in insane asylums as compared with the percentage of the population found in institutions for the feeble-minded has been in the following ratios:

Year -----	1890	1910	1920
Ratio -----	19:1	8:1	6:1

That is, in 1920 there were still six times as many insane in asylums for the insane as there were feeble-minded in institutions for feeble-minded.

Adequate provisions for the mental defective will be forthcoming when the public learns the facts about them. But the knowledge of these facts cannot be disseminated by propaganda, lectures, or published statistics. These methods have been tried from the beginning. The facts must be learned by concrete first-hand observation, made not once, but daily. Let the citizens of each community see its defectives grow up from birth to maturity and through later life. This alone will convince them that mental defectives cannot do the school work of the common school grades, and that they are at the same time a serious detriment to the normal children in these grades; that although the higher grade adult cases are bright enough to earn a living they nevertheless need the guardianship to keep them out of trouble, to keep them employed, to prevent their spending their earnings foolishly, and to protect them against the unscrupulous; that they commit the various offenses against society from five to ten times as frequently as do individuals of normal intelligence; that they marry young, have large families, and produce over three-fourths of the mental defectives of the next generation; that, in a word, *we pay for their presence whether we provide for them or not.*

D. WHAT SOCIAL WORKERS AND TEACHERS CAN DO ABOUT IT

To give the people of any community an opportunity to observe mental defectives first-hand and learn of their nature and needs for themselves requires, in the first place, that it be known who the mental defectives in the community are. It is not sufficient to observe the shortcomings of mental defectives when their mental deficiency is not recog-

nized at the same time. It requires a special mental examination to determine the presence of mental deficiency in the higher grade cases. The schools furnish the only possibility of locating all the mental defectives in a community, for in no other place do all the children come together and become available for such an examination. This still omits the adults, but if the schools continued to find their mental defectives among the new admissions each year, the adults would also, of course, be included in the end. This, then is the first thing the teachers, including other school officials can do. They can find all the mental defectives among children of school age, or cooperate with some state agency to find them. The second thing they can do is to furnish the information concerning the training capacities of these mental defectives and the kind of special training that they need.

Locating the mental defectives as they enter the schools makes them available for observation outside the schools, in their homes, on the street, and especially after maturity, when occasion is given to observe their conduct and ability to earn their own living. This gives the social agencies of the community the opportunity to inform and educate the public about mental defectives. The community may not be interested so much in the mere lack of intelligence of some of its members. That in itself is an individual, personal affair. But the conduct of these same members of the community is a quite different matter. Everybody is interested in how his neighbor behaves. It is a social affair.

In a word, the teachers can inform the public on who the mental defectives are. The social workers can inform the public on what they are. The teachers and social workers are the most important factors in any possible progress in providing for mental defectives. For that progress depends on the average voter's knowledge about mental defectives, and this knowledge cannot be imparted without their assistance. No other agency exists that could take their place, and none is likely to be created for just this purpose.

Further details, giving a more concrete plan of procedure will be taken up later under suggestions to the schools, to social workers, and to the courts.

II. MENTAL DEFICIENCY AND FEEBLE-MINDEDNESS DEFINED

A. NEED OF A DEFINITION

IF we were interested only in mental deficiency and feeble-mindedness and not in mental defective and feeble-minded persons, a discussion of exact definitions would not be essential. Any definition because of its necessary brevity never conveys a very adequate idea of what it defines. We are concerned, however, with the answer to the question whether or not certain human beings have the traits that are to be called mental deficiency and feeble-mindedness, and the answers very vitally affect the lives of the persons in question because of the laws we have about them. That makes it quite different from discussing definitions merely from a scientific standpoint. If a concise, practical definition can be devised, we surely should have one. Every state now has some laws about the feeble-minded. But there are only a few states in which the laws define feeble-mindedness. Minnesota is one of the few. Whether or not these definitions have led to greater uniformity in committing persons as feeble-minded is a debatable question for at least some states. Since none of our state definitions are very concise, and are ambiguous, uniformity has had to depend on the interpretation given to the definition by different people in charge of commitments. Some states have had better qualified men in charge than others. In the former, the absence or existence of a definition has probably not affected commitments in any material degree.

It is very difficult to formulate a definition of feeble-mindedness that is specific and concise enough to be easily followed in practice, because feeble-mindedness is a very complex condition. Yet, I believe, the existing state definitions have, on the whole, been a distinct advantage, and all can be improved somewhat. Let us consider Minnesota's definition to see just what it means, how it is to be interpreted and applied. We can use this as an occasion for trying to find out as exactly as possible what matters must be taken into account in deciding on more or less doubtful or borderline cases.

B. MINNESOTA'S DEFINITION OF FEEBLE-MINDEDNESS

1. *The Definition.*—Minnesota's definition is given in the laws of 1917, and reads as follows: "*The term 'feeble-mindedness' in this act means any person, minor or adult, other than an insane person, who is so mentally defective as to be incapable of managing himself and his affairs and to require supervision, control and care for his own or the public welfare.*" This definition naturally raises several questions. Its several terms need explanation or further definition, and ambiguities need to be cleared up.

2. *Mental Deficiency Defined.*—First, feeble-mindedness being mental deficiency other than insanity, what is mental deficiency, insanity being excluded? And what does insanity exclude? Mental deficiency and insanity may be roughly distinguished by saying that mental deficiency is a condition due to lack of mental development, while insanity is a disease involving mental deterioration, usually including illusions, delusions or emotional disturbances. Excluding insane mental defectives, the insane have developed normally but have "gone to pieces" later. The mental defective never was normal. More precisely, I should myself define mental deficiency as follows: "*Mental deficiency is a mental condition due to a decreased rate of mental development of such a degree that the individual affected should have special treatment suited to his condition.*" This does not imply state guardianship, but only such a degree of deficiency as to make special treatment practical.

3. *Incapacity of Managing One's Self and One's Affairs.*—Second, when is a person incapable of managing himself and his affairs? There is, of course, no point in conduct where one can draw the line sharply. We may say that a person mismanages himself or his affairs when he does not live up to the laws of the state or community or does not provide a living for himself and family, so that he becomes dependent. This furnishes some guide, but it is rather inadequate, especially because the proof of inability to manage is then never given until some delinquency has already occurred. It should be possible to extend State guardianship to a mental defective *before* he has become delinquent. This involves prediction, which is likely to be difficult and uncertain. It means giving an answer to the question: When is a person so mentally defective that he will mismanage himself or his affairs? It may be said that most of the argument in the court room in hearings on commitment center around this debatable question. Even when a mental defective has already become delinquent, it is difficult to show that the delinquency was due to

the mental deficiency and that it will occur again because of the mental deficiency. This reveals an ambiguity in the definition, which we may consider next.

4. *This Incapacity Due Partly to Other, Secondary Factors.*—

Third, does "so mentally defective as to be incapable of managing himself and his affairs" mean that this incapacity must be due solely to the mental deficiency, or may it be due jointly to mental deficiency and other factors? The form of expression used would seem to imply that it meant the former. But this interpretation would make the definition quite impractical. Inability to manage one's affairs may be due to bad habits, bad training, temperamental traits, and other factors. The mental defective frequently have these, and would be able to manage themselves well enough if their moral training, for example, had been better. The incapacity to manage himself and his affairs may then be partly or indirectly due to any factor other than mental deficiency so long as mental deficiency is the main outstanding trait.

5. *How "Requiring Supervision, Control, and Care" is to be Interpreted.*—Fourth, what is "and to require supervision, control, and care for his own or the public welfare" supposed to add to "incapable of managing himself and his affairs?" Undoubtedly, the definition does not mean to set up a distinction between two classes of persons, one class being unable to manage itself and affairs, but does not require supervision and control, while the other class does require supervision. That is, we may assume that if a person is unable to manage himself then he requires supervision. That being so, the clause about supervision must be regarded either as merely explanatory of the clause about inability to manage himself, or as referring to children, while the other about inability to manage refers to adults. I think the latter is the correct interpretation. Otherwise, the definition could apply only to adult mental defectives, with no provision for committing mentally defective children. For all children, normal as well as defective, are unable to manage themselves and their affairs, and require supervision. Further, for "supervision" we must read "state supervision," as this is evidently implied.

6. *Need of Supervision Dependent on Kind of Supervision.*—Fifth, whether or not a mental defective, having perhaps other detrimental traits secondary in importance to the mental deficiency itself, requires supervision, control and care evidently depends on what kind of supervision, control, and care are meant. Before this definition was formed, State supervision of mental defectives meant commitment to the State

institution. With the 1917 law, however, extra-institutional supervision of certain classes of feeble-minded that had heretofore been regularly committed to state institutions is introduced into Minnesota. This extra-institutional supervision may vary from very close daily guardianship to a few minutes a year from some state agent. There is a marked general tendency for the courts in Minnesota to interpret our definition so as to mean commitment to the State institution whenever a case is found feeble-minded. Consequently, cases are often found not feeble-minded by the court, when mental deficiency and need of some guardianship are granted, because it is felt that commitment to the institution is unnecessary. This interpretation is not warranted by the definition and the 1917 Law, and it creates a most serious defect when it is given. It eliminates all special supervision and guardianship for a large proportion of the defectives of moron grade, who are by far the most numerous, and likely to develop into cases who need guardianship most of all, even commitment to the institution.

7. *A Revised Statement of the Definition.*—On the basis of these explanations and interpretations, the definition of feeble-mindedness may now be restated so as to cover some of these points more clearly. This revision is as follows:

Feeble-mindedness is such a degree of mental deficiency that a person so affected requires permanent care and guardianship for his own good or that of the State, either because of the severity of the mental deficiency alone, or because of the combined influence of the deficiency and other associated traits of secondary importance, together with the circumstances of his environment. This needs to be supplemented with the definition of mental deficiency already given above. It is not offered with the idea that it is entirely adequate and free from any difficulty of application. It also needs some explanation and interpretation. The points it especially intends to bring out are, first, applicability alike to children and adults, by use of the term *permanent* care and guardianship.

Second, the necessity of considering traits other than mental deficiency, so long as the latter is the chief, most prominent one. There must be need of permanent guardianship, and mental deficiency must be the main cause of this need. Bad habits, blindness, paralysis, or even poor environment may be the secondary trait or factor. The nature of the case and guardianship needed is not specified, not even that it must be direct State guardianship. Thus it is quite possible that the State's share in direct guardianship might end with causing merely a change in the

environment of a case committed to its guardianship as feeble-minded, for there are many mental defectives who would be unable to manage themselves in bad sections of large cities, but could do so in a rural community. The State's function would consist only of seeing to it that at all times a case committed as feeble-minded would receive the care that that particular case needed.

C. APPLICATION OF THE DEFINITION IN MAKING COMMITMENTS

1. *Determination of Mental Deficiency.*—The first question to be decided in a hearing on feeble-mindedness is whether there is any mental retardation in the case in question. Is his mind developed as far as it should be for his age? Mental tests should be used to decide this question, unless the mental retardation is so great as to be obvious to ordinary observation. The mental test method is so superior to any other procedure we might follow as to make the failure to use it quite inexcusable. Furthermore, we should not try to supplement the result of the mental tests with any other observations in arriving at a conclusion as to the existing grade or level of mental development. That would be an attempt to correct the results of the known good method with the results of a method known to be much poorer. If we wished to determine the exact length of a building, and had an accurate steel ruler and a more or less elastic cloth tape line with which to do the measuring, we would not think of using both and then average or in some way combine the results. We would use the steel ruler alone as carefully as possible and perhaps repeat the measuring with the steel ruler, if there were any doubt about the first result. It should be obvious that the same reasoning applies to mental measurement, but somehow this seems not to be the case. There is a very general tendency to try to supplement the mental test result with other observations and to use these observations either to corroborate or to partly set aside the results of the mental tests¹

2. *Use of Some Knowledge of the History of Mental Development.*—The results of the mental tests, however, show only what the present mental level is. They give us the present mental age. They do not indicate whether this mental age was reached by a decreased rate of mental development, supposing that we are dealing with a case whose

¹I have known a judge to be quite unconvinced that a case is question with an intelligence quotient in the sixties was feeble-minded, but who readily became convinced on hearing testimony on some bit of foolish conduct of which anyone of average intelligence might occasionally be guilty.

mind is at present subnormal—or by a mental deterioration after the mind had reached a higher, perhaps normal level. Now it is true that mental ages are very frequently low in different forms of insanity, so that the mental age alone does not distinguish these insane from mental defectives. Usually this distinction can be made by the regularity or irregularity of the passes and failures in the series of tests given, or by the conduct or manner in which the case goes about doing the tests. But this is by no means always so. There is a small number of cases with a normal mental development up to a certain point, followed by a regression or deterioration, which cannot be detected by our present tests. Consequently, the mental age should never be accepted alone as proof of mental deficiency when we are dealing with older children and adults. Some knowledge of the history of the child's development is required in addition. The most valuable information here is the school history. Compare the present mental age with the highest school grade the case attained, and the school marks he got in different grades. If this comparison shows a very large discrepancy, as, for example, a mental age of ten or less for a case who is reported to have done about average work or better in the high school, it is quite certain that the case is not one of mental deficiency. When all the history obtainable still leaves the matter in doubt, the case should be referred to a psychiatrist, a specialist in nervous and mental diseases.

3. *Intelligence Quotient Limits for Feeble-Minded.*—Having found that a case is mentally defective, the next thing to decide is whether he is so mentally defective as to require permanent care and guardianship, irrespective of any other unfavorable traits or factors. Attempts have been made to draw a line in the intelligence quotient (mental age divided by age) below which all mental defectives may be regarded as requiring this guardianship. I have placed this at an I. Q. of .75, because there were not many cases in the institutions for the feeble-minded with an I. Q. higher than this at the time mental tests first came into use. Subsequent observation has verified the substantial correctness of this. In accepting this, it must be remembered, however, that many with an I. Q. of about .60 to .74 can be given sufficient guardianship outside the institution. Need of commitment to an institution is not implied.

In a similar manner we may draw the line in I. Q. at a point above which we may regard a mental defective as not feeble-minded, irrespective of other traits and factors, favorable or unfavorable. This may be

placed at .84. If the I. Q. is over .84, we may assume that whatever need of guardianship exists is not due chiefly to mental deficiency. This leaves a range in I. Q. of .75 to .84 inclusive, as debatable ground, where the "other associated traits of secondary importance" mentioned in the revised statement of the definition are to be taken into consideration to determine whether a mental defective case is to be classified as feeble-minded.

III. IMPORTANT FACTS ABOUT MENTAL DEFECTIVES

A. THE NUMBER OF MENTAL DEFECTIVES

1. *Past and Present Estimates.*—Most of the earlier estimates of the number of feeble-minded likely to be in any given area placed the figures at or near one-half of one per cent of the general population. These estimates were based on the number found by rough surveys, in which the method consisted chiefly of asking the different persons in a community who were most likely to have come in contact with mental defectives to report the number of cases they knew of. We know now that this was a very ridiculous procedure in so far as the aim was to determine the really existing number. In one way these surveys have done much harm by creating such an erroneous impression, which it is now very difficult to eradicate. One can hardly get a hearing now for the real facts as we know them today. Present day estimates are based on the complete surveys of school systems, in which surveys every school child is given a group mental test, followed by individual mental examinations of all children who did poorly on the group tests. In this way all the mental defectives in the schools are really found. This method obviously cannot be used on the adult population. But the higher death rate among mental defectives than among normals is the only factor that might decrease the percentage of defectives in the adult population below the existing percentage among children of school age, and this is offset by the fact that in a school survey the mental defectives not attending school escape enumeration. We may take the percentage of mental defectives existing in the general population as substantially the same as the percentage found in the school population.

2. *Percentage of School Population Found Mentally Defective.*—We have surveyed the total school population in a number of towns in Minnesota, using the group and individual test method just mentioned. These towns were selected for survey because they were regarded as representative of the State. The following gives the percentages of the total school population that had an intelligence quotient below .75. These were defined above as feeble-minded and requiring permanent guardianship.

Town	School population	Per cent with I. Q. below .75
I	163	8.0
II	593	6.7
III	832	5.5
IV	1025	3.7
V	1220	5.5
VI	587	4.4
VII	588	4.4
VIII	966	2.4
Average		5.08

Rural schools that have been surveyed show a higher percentage of mental defectives. At least five per cent of the general population of the state must have an I. Q. of less than .75 according to our results so far. Similar surveys in other states give similar figures. The population of Minnesota is nearly two and a half million. Four per cent of this is 100,000.

3. *Number of Persons in Minnesota of Different Grades of Mental Deficiency.*—The number of individuals of a given grade of intelligence increases very rapidly as the grade of intelligence increases. If children of the lower grades of intelligence were not eliminated from the schools more readily than the higher grade defectives, fairly accurate figures might be given on this, based on what is found in the surveys of schools. But those of idiot grade are never, and those of imbecile grade are but rarely found in the public schools. In terms of intelligence quotients, idiots may be defined as having I. Q.'s from 0-.24, imbeciles from .25-.49, and morons from .50-.74. Surveys of the general population, with the older methods probably find most of the idiots, the majority of the imbeciles, but fail to find the vast majority of the morons. An English survey of this type classifies seventy-five per cent of all defectives found as morons, twenty per cent as imbecile, and the remaining five per cent as idiots, in round numbers. Assuming four per cent of a general population of 2,500,000 to have an I. Q. of less than .75, would give the following number belonging to the grades of idiots, imbeciles, and morons, in Minnesota, when the ratios in the English survey are taken as a basis.

Morons	Imbeciles	Idiots	Total
75,000	20,000	5,000	100,000

The true relative numbers would show much fewer imbeciles, and more morons, with the number of idiots probably not changed very much. It is evident that the total number classed as defective would be much reduced if the line were drawn at a lower point than an I. Q. of .75.

Lowering the I. Q. only a few points would decrease the total number quite out of proportion to the amount the I. Q. is lowered. Imbeciles, as defined, would reach a maximum mental age at maturity of seven to eight years. Nearly all these require the close and permanent guardianship of intelligent parents, or of others willing to take them into their homes as dependents, or permanent commitment to the institution. A small per cent of them, who have been well brought up and properly trained, might be cared for by the method of extra-institutional guardianship.

B. THE CAUSES OF MENTAL DEFICIENCY

There are a great many things that can arrest or check the development of the brain before relative maturity is reached during later childhood. It would take too much space to give even a brief review of them here. But we are interested in really only two questions, those of prevention and cure. From this standpoint the most helpful brief account is an enumeration and classification of the causes according to the time when they are operative, with a few explanations as to their nature and relative importance.

1. *Time When Causes are Operative.*—*a.* Before Conception. The germ plasm of either parent may be defective in one of two ways. First, it may lack some elements necessary to normal mental development because the parents have failed to inherit them, this absence of the necessary element being an hereditary trait not due to disease or other extraneous factor. Second, the germ plasm may be defective through disease, drugs, or other poison, resulting in mental deficiency of the offspring or other nervous or physical disorder.

b. During Gestation. Infectious diseases, drugs, malnutrition, and mechanical injury may be regarded as causes of mental deficiency.

c. During Birth. Mechanical injury, and various degrees of asphyxiation through prolonged labor, premature birth, or other cause.

d. After Birth. Infectious diseases, toxins from chronic local infections, severe and prolonged nutritional disorders, mechanical head injuries.

2. *Relative Importance of Causes Operative at Different Times.*—Defects or disorders of the germ plasm are responsible for not less than three fourths of all cases of mental deficiency. On this there has been practically complete agreement for some time. Authorities still differ more or less on the relative importance of the two kinds of germ plasm

defects named,¹ and whether or not heredity in the first follows Mendel's law. The majority of authors attribute the greater importance to the first, according to which mental deficiency is directly inherited from mentally defective parents. There is evidence also that Mendel's law holds here.² Mendel explained the inheritance of certain traits in plants with which he experimented by assuming that these traits were the result of certain "determiners" in the germ plasm of the two immediate ancestors. The germ plasm of an individual, male or female, may contain a determiner of a given trait from both his parents, or only from one parent and not from the other, or from neither. Let us represent the presence of a determiner in the germ plasm of an individual by *p*, and its absence by *a*. The germ plasm of a given individual with reference to the determiners for a given trait may then be labelled *pp*, meaning that this individual has inherited a determiner for the trait in question from each of his parents; or it may be labelled *aa*, meaning that he has not inherited a determiner from either of his parents; or *ap*, meaning that he has inherited the determiner from one of his parents but that he has not inherited it from the other. Now let the determiner, *p*, be the determiner for normal mental development. If a person inherits a determiner from only one of his parents, he will still have normal mental development, unless, of course, some non-hereditary cause makes him mentally defective. That is, *ap*, and *pp*, individuals are normal, possess the trait of normal development. Only *aa* individuals, those who have not inherited the determiner for normal mental development from either parent, are mentally defective. One thing more must be kept in mind. That is that a parent does not transmit his inheritance on any trait from *both* parents to his offspring, but only from one. For example, if he is an *ap* individual he may transmit the *a* element of his germ plasm or the *p* element to his offspring. Each germ plasm cell goes through a process of maturing, and in this process the inheritance from one of the parents is eliminated. It is entirely a matter of chance as to whether the inheritance from the mother or the father will be eliminated in the case of any particular germ cell.

¹Tredgold and a few others believe that the insane and neuropathic in general are responsible for quite as many mental defectives as are parents who are mental defectives themselves.

²See especially Goddard, H. H. *Feeble-Mindedness: its causes and consequences*. McMillan, 1914.

We may now state the different ways in which the elements of the germ plasm of the two parents containing the determiner, *p*, may combine to give the different types of offspring.

	Parents				Possible Offspring			
	Father		Mother		a	b	c	d
	G.F.	G.M.	G.F.	G.M.				
A	----	(p ¹ p ²)	+	(p ³ p ⁴)	-----p ¹ p ² -----p ³ p ⁴ -----p ² p ³ -----p ² p ⁴			
B	----	(a ¹ a ²)	+	(a ³ a ⁴)	-----a ¹ a ² -----a ³ a ⁴ -----a ² a ³ -----a ² a ⁴			
C	----	(a ¹ a ²)	+	(p ³ p ⁴)	-----a ¹ p ³ -----a ¹ p ⁴ -----a ² p ³ -----a ² p ⁴			
D	----	(a ¹ a ²)	+	(a ³ p ⁴)	-----a ¹ a ² -----a ¹ p ⁴ -----a ² a ³ -----a ² p ⁴			
E	----	(a ¹ p ²)	+	(a ³ p ⁴)	-----a ¹ a ³ -----a ¹ p ⁴ -----p ² a ³ -----p ² p ⁴			
F	----	(a ¹ p ²)	+	(p ³ p ⁴)	-----a ¹ p ³ -----a ¹ p ⁴ -----p ² p ³ -----p ² p ⁴			

The A to F give the six possible types of parents with reference to their inheritance from the grandfather, G. F., and the grandmother, G. M. Thus in the F type the father has not inherited the determiner for normal mental development from the grandfather, G. F., but he did inherit it from the grandmother. The mother in the F type of parents inherited the determiner from both the grandfather and grandmother. Under a, b, c, d, are given the four possible types of offspring for each type of parents. The numerals 1, 2, 3, 4 are added simply to aid in showing all the possible combinations. "1" and "2" always refers to inheritance from the father, and "3" and "4" to inheritance from the mother. Or, to take the inheritance back one generation further, "1" means inheritance from paternal grandfather, "2," paternal grandmother, "3," maternal grandfather, and "4" maternal grandmother. Thus, for the F type of parents, the first or "a" offspring has inherited from the paternal grandfather and the maternal grandfather. The "c" offspring has inherited from the paternal grandmother and the maternal grandfather.

If the inheritance follows Mendel's law as explained here, it is seen that several very important rules can be deduced from it. First, in the A type of parents all the offspring will be normal and untainted, a tainted individual meaning an ap individual. Second, in the B type of parents, all the children will be mentally defective, both parents being mentally defective. Third, in the C type all the children will be normal mentally, but tainted in heredity. From this type it is seen that the offspring will all be normal so long as one of the parents is a pp individual. Fourth, in the other three types of parents, D to F, we can make no prediction about the offspring for any particular pair of parents, because there is more than one type of offspring possible, and the type of any

particular one is a matter of chance. Thus, for the E type of parents all the offspring might be aa, ap, or pp. For the D, E, and F types we can give statistical rules that will hold true on the whole for the total number of offspring from a large number of families. Thus in the long run, half the offspring of the D type of parents will be aa individuals, that is, mentally defective, and the other half will be ap individuals, normal mentally but tainted in heredity. For the E type, one-half will be ap, normal but tainted, and one-fourth will be pp, normal and untainted, and one-fourth of the offspring will be aa, mentally defective. For the "F" type one-half will be ap, and one-half pp.

To deduce practical rules of conduct from this becomes more difficult. Such rules depend on how much risk is to be permitted in matings, and on the possibility of determining to what type each individual belongs. The following, however, is a reasonable minimum. First, no mentally defective person should be allowed to marry. We need not make any exception to individuals whose mental deficiency is not hereditary. For any child should be entitled to mentally normal parents for his rearing. Second, type E marriages should be prohibited, when it is fairly certain that both individuals are of the ap type.

The germ plasm may become defective through disease or drugs and result in a mentally defective offspring. This is, of course, not heredity, strictly speaking. Possibly insanity and psychopathic conditions in parents are second in importance only to mental deficiency itself as regards the number of mental defectives resulting. The effect of drugs depends, of course, on how much the drug has been used. Alcohol seems not to be a sole cause of mental deficiency except in quite extreme instances.

A relatively very small number of mental defectives seem to owe their deficiency to causes present during gestation and during birth. This gives third place in importance to the various factors operative during infancy and early childhood, to which considerably less than twenty-five per cent of all mental deficiency is due. Here the distinction must be kept in mind, however, between a factor that is present in many children but causes only a low percentage of mental defectives, and the factor that is present in only a few children but causes a high percentage of mental defectives. Thus, cerebro-spinal meningitis causes mental deficiency in very many children who have the disease, but the disease is fortunately not prevalent enough to result in a large total number of mental defectives. Another important distinction is that between sole

cause and contributing or exciting cause. Undoubtedly many children would escape mental deficiency, although born of parents with defective germ plasm due to disease or drugs except for these further, though by themselves, minor factors appearing during infancy.

3. *Prevention and Cure.*—Many parents have the idea that mental deficiency can be cured. This would mean that a mentally defective child's rate of mental development could be sped up to a rate above the average rate, so that he would make up what he had fallen behind. That this can at present be done in any material degree is very doubtful. Mentally defective children in very rare instances do make up lost ground, but usually not because of any treatment given them. Just how often this occurs is still unknown. This does not mean that minor improvements can not be obtained by treatment in some cases, if taken young enough. But if a child is seriously defective by the time he reaches the school age of five or six years, his chances of ever becoming normal again are surely considerably less than one in a hundred, and possibly not more than one in a thousand.

This brings us to two important conclusions. First, mental deficiency, once established, cannot be cured. Much effort, time and money is often wasted by parents in the vain hope that somehow a cure, or at least some improvement, may be attained. The result is bitter disappointment, neglect of other children and many other duties, instead of a prompt adjustment to the facts, the right training for the defective child that will fit him into a place in the world not beyond his capacities. Second, prevention must for the most part be prevention of parenthood of the mental defective and tainted individuals. Prevention is chiefly a sociological, and only in a small measure a medical problem.

C. MENTAL TRAITS

1. *Rates of Mental Development.*—The use of mental tests to determine mental ages and intelligence quotients has made possible a fairly accurate measurement of the rates at which different mental defectives develop. The rate of development is given in the intelligence quotient, since it tells simply what per cent the mental age is of the age of a case. Thus, it is seen that a mentally defective child will fall behind a little more each year in proportion to how much his rate of development is decreased. This is illustrated in the following figures, neglecting the fact that the I. Q. itself has a general tendency with the mental defective to decrease a little each year.

Important Facts About Mental Defectives

Age -----		2	4	8	12
I. Q. -----	.25	1.5	3	6	9
I. Q. -----	.50	1	2	4	6
I. Q. -----	.75	.5	1	2	3

The figures under the ages 2 to 12 give the number of years the child's mental age is below his age, for the I. Q.'s given on the left. Thus, a child with an I. Q. of .50 will be one year behind at the age of two, two years behind at the age of four, and so on.

Not every mentally defective child, however, follows this general rule of maintaining a given rate of development, or I. Q. Any particular child may develop at various changing rates. Some develop at a normal rate, that is, maintain an I. Q. of about 100, until the age of about eight or nine when development stops abruptly.¹ In others the I. Q. decreases markedly but regularly from early childhood. The mental age itself even may decrease instead of increase at a subnormal rate; these are deteriorating. In a few instances the I. Q. increases; they improve. In a study the writer once made of 639 cases in the Minnesota School for Feeble-Minded, who were examined from two to five times each at about two year intervals, 4.8 per cent gained twelve months or more in mental age in one year. Of these, two-thirds gained more than twelve months and were thus making up some of what they had fallen behind. Sixty-eight per cent gained from one to eleven months a year. Eleven per cent neither gained or lost as much as a month in a year. Sixteen per cent lost from one to seven months a year.¹ In considering these figures it should be noted, however, that a good many of these cases had only two examinations, some of which showed a considerable gain or loss for this particular period, which they undoubtedly did not continue to do. That is, very much less than two-thirds of the 4.8 per cent, who actually made up lost ground, will continue to do so until the age is reached when mental development stops normally. What the observations do show is that there may be considerable irregularity in the rate of mental development in any particular mental defective, and that the final mental age that will be attained cannot be predicted very closely or with great certainty in young children, say before the age of ten years.

¹Doll seems to hold that a considerable number belong to this class. See Doll, E. A. Preliminary note on the diagnosis of potential feeble-mindedness. Training School Bulletin, 1916. Also, Growth of Intelligence, Princeton Contribution to Psychology, 1920.

¹Kuhlmann, F. The results of repeated mental re-examinations of 639 Feeble-Minded over a period of ten years. Journ. Applied Psychology, Vol. V, Sept., 1921.

2. *Duration of Development.*—It has been stated by some that mental defectives stop developing at a much earlier age than normals, and in proportion to the degree of deficiency.¹ Mental test results show only a small difference in this respect between idiots, imbeciles, and morons. On the whole the mental ages of idiots increase to the age of about fifteen. Morons continue to develop possibly a year or two longer, according to test results.² This means that the brain, like every other tissue or organ of the body, has a certain period for development to which it adheres rather closely. But it is a rule that works both ways. An organ will not develop after its period is passed, even though it is still more or less undeveloped. Applied to the different stages of brain development, it explains why mental deficiency can not be cured, even in young children. When the time has passed for a given stage without it having reached that stage, nothing can be done to develop what has failed to develop.

3. *Lack of Attention, Voluntary Effort, and Will Power.*³—Lack of voluntary attention was one of the first mental traits observed in the mental defective. His mind flits about easily from one thing to another, and he fails to concentrate on any given task. He is a poor observer, and from infancy up, fails to pick up as much information about things and activities in his everyday surroundings as does the normal child. Later, when definite school and other tasks are met, he fails to learn because it requires more application than he is able to give. Some aspects of these traits have been carefully tested in psychological laboratories, and the results have made our knowledge much more definite

¹See Stern, W. The psychological methods of testing intelligence (Trans. by G. M. Whipple), 1914.

²See my study on re-examination of 639 cases.

³For this and other mental traits, see following:

Woodrow, Herbert. Brightness and dullness in children. Chapter VIII-XI. J. B. Lippincott Co., 1919.

Hollingsworth, Leta. Psychology of Subnormal Children. McMillan Co., 1920.

Goddard, H. H. Psychology of the normal and subnormal. Part 1 Chapter V-XIII. Part II, Chapters III-V. Dodd, Mead and Co., 1919.

Binet and Simon. Intelligence of the feeble-minded. Trans. by Elizabeth Kite. Part I, Chapter II-XIII. Publication of the Training School at Vineland, New Jersey, No. 12, June, 1916.

Ordahl, G. and Louise. Qualitative differences between levels of intelligence in the feeble-minded. Journal of Psycho-Asthenics. Monograph supplement, June, 1915.

Wylie, A. R. T. Taste and reaction time in the feeble-minded. Journal Psycho-Asthenics, Vol. IV.

Kulmann, F. Experimental studies in mental deficiency. American Journal of Psychology, 1903.

and concrete. They have shown how almost completely lacking even the moron is in voluntary effort, and how completely all his activities and conduct are reduced to following the interest, inclinations, and impulses of the moment. In muscular power, in speed of movement, in quickness with which he reacts to a given signal, and in the rate of his mental processes, the best he can do shows a speed but little above that of the normal person doing the same things without any effort at speed at all. In fact, there is sometimes but little difference between the speed with which a moron does a thing when urged to his utmost and his speed when he is not requested to go fast.

This lack of voluntary effort, the basis of attention and will, is a fundamental trait. It has a very important bearing on his lack of learning capacity and on conduct. Learning is of two types, acquiring more or less disconnected bits of information, and acquiring skill and efficiency in a continued activity. Failure to make progress in the latter type is due oftener to a lack of effort and perseverance than to the absence or inadequacy of some other mental function necessary for the task in question. Normal children and adults engaged in any task, occupation or profession probably rarely attain the very highest point of efficiency of which they are capable, because they have reached a point of efficiency where their performance is all that is required, is asked of them, or where it is equal to that of most other people doing the same thing. When this point is reached, interest and effort lag, and they progress no further. When a goal is reached there is no more left to do. With mental defectives the necessary interest and effort is lacking in the beginning. One of the essential factors in learning is almost entirely absent. For the defective, there is no goal to attain.

The control of conduct is dependent in part on will power. The inability to control themselves and their affairs is another prominent trait of mental defectives. As adults, they possess a number of habits, natural impulses and instincts, which if followed under all circumstances lead to misconduct and trouble. It takes effort, will power, to resist them, and the mentally defective person becomes delinquent often because he lacks this resistance.

4. *Memory.*—The psychologist analyzes what we ordinarily call memory into several distinct functions, only one of which is properly called memory. These other functions determine what we can do with our memory more than does memory itself. In the first place, memorizing and recalling both require close attention and effort. The mentally

defective memorizes poorly more because he does not try hard enough than because of poor memory. Likewise, he recalls poorly or incorrectly because he does not stop to think, or to distinguish between what he really remembers or only fancies.

Thus second, he confuses the really remembered and the merely imagined. He is very prone to relate anything that comes to mind as something he actually experienced. This is chiefly why his testimony on the witness stand is so unreliable.

Third, forgetting the irrelevant and useless in our every day experience is quite as important as is holding on to what fits in with our tasks, aims, and purposes. We see and hear a thousand things a day that we forget the next minute, because it would be less than useless, if we remembered them. This means that we more or less subconsciously pass judgment on every sensation and experience and give it the attention necessary to fix it in mind or pass it by. The mental defective is lacking in this kind of judgment, and fails largely to distinguish between the useful and the useless in what he remembers. The irrelevant and useless constantly crop out when he relates his experiences, or gives an account of what he knows about things.

Fourth, much of what we say we recall is not really recalled, but reconstructed with the aid of our knowledge of how things must have been. We recall a bit here and there and then fill in the rest by reasoning. Were it not so, we would contradict ourselves, and "remember" quite impossible things much oftener than we do. Here again the mental defective falls short. He fails much more in thus rationally reconstructing from what he remembers than in what he does really remember. For the same reason he is frequently inconsistent in his recall.

Fifth, when we are particularly anxious to remember something for future use we try to keep it in mind in the meantime, that is, we recall it frequently, and before we have forgotten it beyond recall. While memorizing a list of things, a verbal account or something of that sort, this process of recalling immediately, and repeatedly as much as we can of it and then going back to memorize more, alternating the two, is much more valuable for fixing it in mind for some future date than spending all the time on just reading over the list or account would be. Once completely memorized, repeated recalls will fix it in mind indefinitely. This procedure the mental defective hardly ever employs. He does not on his own initiative bother about keeping a thing in mind. Consequently he is undependable in following instructions or

commands that do not call for immediate action. And it is another factor entering to make him a poor learner.

Sixth, psychologists are accustomed to distinguish between rote memory, and associative memory. Rote memory is what we use in memorizing by mere mechanical repetition, as for instance, in learning the multiplication table. Associative memory is what we use when memorizing more or less complex matters which we can first more or less analyze, arrange, or connect up by associations. Associate memory comes into play, for example, in trying to remember complicated instructions, a conversation, or a speech. Rote memory cannot be improved, and changes only with health and age. Associative memory depends more on a person's general mental equipment, both in native endowments, and in acquisitions and method of memorizing what he has learned. From this we would expect that mental defectives would differ from normals much more in associative memory than in rote memory. This is very markedly the case. It appears that the moron's rote memory is not far from normal, but he is very far behind the normal in associative memory.

This trait explains many things about his learning, as well as indicating what is best to try to teach him, and something about the method of teaching best adapted to the trait. In a word, he does well in the mechanical things that can be learned by repetition and drill. In such things he will learn relatively fast, and may often be made to excel normals by prolonging the drill.

5. *Abstract Thinking.*—The mind of mental defectives is almost entirely limited to the concrete. They cannot generalize. Abstract terms are practically absent from the vocabulary of even the best, with mental ages of ten or eleven. They do not learn the meaning of even very simple abstract words, although in other respects their vocabulary may be relatively extensive for their mental age. This inability to get away from the concrete is abundantly and strikingly illustrated in their actions. They may do a thing very well and satisfactorily so long as it requires no change in any detail from the way in which they have become accustomed to do it. But they fail in making any slight adaption to a new situation. They react to every situation with the concrete idea or experience they happen to have had. This is the reason why they so often fail to apply what they have learned. For example, a moron may know the multiplication table perfectly but be quite unable to tell you how much money he would earn in six days at three dollars a day. His train-

ing to be effective must involve exactly the same activities as does the actual job in which he is to use it.

6. *Judgment and Reasoning.*—The lack of common sense or good judgment is another of the prominent traits of mental defectives. Many of the higher grade cases seem to ordinary observation quite normal except in this respect. They reveal their deficiency through repeated foolish behavior in situations more or less new to them, or through chance remarks that reflect the course of their mental processes. This is, of course, closely related to their inability to get away from the concrete, from the exact experiences and reactions to which they are accustomed, which has a good side to it. In matters of everyday life our conduct is ruled chiefly by ready-made judgments, habits of thought and action, that have been acquired in childhood, or have been accepted later from among the traditions of the race that have long ceased to be, or have never been questioned. Real judgment does not enter. We do not stop to think or reason about them. One of the most fortunate things about mental defectives is the fact that under the same training and influences they acquire these ready-made judgments about as well as do normals. They can be taught without special difficulty to act and conduct themselves in ordinary circumstances as normals do. They are not by nature immoral or vicious. If so taught, their conduct will show apparent good sense and judgment, and they can be depended on just because that conduct is a matter of fixed habit instead of being determined by real judgment and reasoning. They will fall short in their conduct only when they meet situations in which these fixed habits are not adequate.

Mental defectives, with a mental age of less than eleven years, never reason, in the strict sense of the term. They have not the capacity to consciously set themselves a problem, get together the facts relative to the problem, and come to a logical conclusion. Each of these three steps alone involves more than they can do. Each involves the control or directing of one's mental processes, and the mental defective fails probably more in this than he does in controlling his actions. As his acts are determined by his habits and impulses, so his thoughts are determined by the uncontrolled flow of associations in a passive imagination or fancy.

D. TRAINING CAPACITY

1. *In School Work.*—The mental age is the best single guide for determining what a mental defective can learn to do. Roughly, this

tells us how far he will be able to go in the school grades, remembering that on the average normal children of the first grade have a mental age between six and seven, of the second grade a mental age between seven and eight, and so on. Thus, on the whole, mental defectives with the following intelligence quotients and corresponding final mental ages at the age of fifteen would be able to finish the school grades given in the bottom row of figures:

I. Q. -----	47	53	60	66	73
Final M. A. -----	7	8	9	10	11
School Grade ---	I	II	III	IV	V

To this there are many individual exceptions, both because the I. Q. does not remain constant in all cases, and because of other special traits. The I. Q. decreases much oftener than it increases with age. Again, they do relatively poorer in some school subjects than in others. With but few exceptions, the mental defective falls behind in number work much more than in anything else;¹ no true moron can learn to do fifth grade arithmetic. He may exceed what could be expected of his mental age in subjects depending largely on memory and more or less "mechanical" learning, but will fall correspondingly short of expectation in subjects calling for the abstract.

2. *In Occupations.*—There are occupations in practically every community that require a mental age no higher than four or five, or even less, for fairly satisfactory performance. There are therefore, relatively very few mental defectives unable to learn an occupation whereby they could earn their living. It is not in this to any great extent, that they fail to "manage themselves and their affairs." The following few illustrations will suffice to make this clear.

An adult mental defective with a mental age of three can: shovel dirt, load and unload dirt, coal, etc.

One with a mental age of four or five can: dig for trenches and excavations, scrub floors, do several laundry tasks, as sort clothes, and feed mangle, assist in kitchens, as cleaning and paring vegetables.

One with a mental age of six to eight can: pack boxes in factories and stores, do most rough farm work, wash dishes, clean windows, sweep streets, do chambermaid work.

¹This is almost the universal experience of teachers having mental defectives in their classes.

See also, Merrill, Maud A. The ability of special class children in the "Three R's." *Pedagogical Seminary*, XXV, March, 1918.

One with a mental age of nine to eleven can: cook and serve ordinary meals, wait on table, do hand and machine sewing and mending, house-cleaning, operate elevators, serve as messengers, teamsters, do any unskilled to semi-skilled labor.

E. CONDUCT

The conduct of mental defectives is below par not alone because of the mental traits just described but often quite as much because of their training and environment. Since their parents are themselves mentally defective in most instances, their home training is usually very poor. The mental defectives are also most frequently in the poorest environments. Their standard of living is low, their financial means are small, and they consequently congregate in environments where living is cheapest.

1. *Nature of Delinquencies.*—We will consider only adult mental defectives. a. *Economic Dependency.* This is their most frequent shortcoming. A very large proportion of them do not leave the parental home after they have grown up. These are either not employed outside the home at all, or at quite irregular intervals. Of those that do venture on an independent career, the majority soon fall into the hands of charities. This economic failure is partly due to the unsatisfactory service they give while on the job and their consequent frequent discharge. But this is not the main cause. They give up jobs on their own initiative. A month or two is often about as long as a moron, trying to manage his own affairs, will stay in one place. Periods of idleness are frequent and prolonged, they do not plan ahead, but live from "hand to mouth." They usually spend all their earnings immediately and largely foolishly.

b. *Immorality in Females.* Naturally, sex delinquency is not so much a problem with mentally defective males, but the mentally defective girl easily falls prey to unprincipled men. Yet even here there is evident a strong tendency for mental defectives of the two sexes to associate rather than with normals. The illegitimate children of mentally defective, unmarried mothers have mentally defective fathers very much more frequently than would be the case were this not so. They are easily induced to lead a life of immorality, and are the chief source of commercialized vice. They are probably also the main factor in the dissemination of venereal disease.

c. *Stealing, Burglary, Robbery.* Thieving is common with mental defectives who have lacked moral training. Their tendency to burglary

and robbery is apparently less marked, probably because the elements of courage and ability to plan a little are lacking. But while they do not so often plan and initiate the bolder hold-ups, and robberies, they are frequently the associates and accomplices of the more intelligent criminals. The latter are probably not aware of the mental deficiency of their associates, and thus choosing them purposely, but it is because the mental defectives are the more easily persuaded and are therefore found more frequently in these roles.

2. *Frequency of Delinquency.*—Since it has never been possible to keep all mental defectives in any given locality under observation for a generation, the tendency of mental defectives to become delinquent, as compared with normals, cannot be stated in very exact figures. We can, however, approximate such a statement by noting what percentage of delinquents are mentally defective, and compare the percentage with the percentage of the general population that is mentally defective. The difference between these two percentages will represent what mental deficiency, and what goes with it, contributes to delinquency. We can do this in a few instances.

In several instances, groups of unmarried mothers, and of prostitutes were given mental examinations. In every case over fifty per cent were found feeble-minded by the Binet intelligence tests.¹

All the inmates of a reformatory have been mentally examined in a considerable number of instances. We have done this for the Minnesota reformatories, and for all the new commitments every three months during the past three years. The results have been so uniform and have agreed so closely with similar results in other states,² that a sample will suffice to show the main facts. The following gives the per cent of cases

¹See the following:

McCord, C. P. One hundred female offenders. Training School Bulletin, 1915. Third Annual Report.—Adult Probation Officer, Cook Co., Ill.

Report of Massachusetts "Commission for the Investigation of the White Slave Traffic, So-called."

Norton, J. K. The mental ages of a group of 127 prostitutes. Journal of Delinquency, Vol. V, May, 1920.

²See the following:

Williams, J. H. The intelligence of the delinquent boy. Journal of Delinquency, Monograph No. 1, June, 1919.

Burmeister, Marie E. Delinquents. Printed by State Training School for Boys, Red Wing, Minnesota.

Miner, J. B. Deficiency and Delinquency. Warwick & York.

Fernald, Mabel R., Hayes, Mary H. S., and Dawley, Almira. A study of women delinquents in New York State. The Century Co., 1920.

found in Minnesota reformatories belonging to the different grades of intelligence:

	Imbecile	Moron	Border-line	Dull	Average	Bright	Very Bright	Superior	Very Superior	Precocious	No. of Cases
Red Wing, %	.3	33	28	23	12	4	.2	0	0	0	610
St. Cloud, %	.3	24	27	21	9	6	5	5	2	1	648
Sauk Centre, %	.1	30	25	26	13	3	3	1	.2		704

In these classifications, cases with an I. Q. from .50 to .74 were called morons. It is seen that about thirty per cent of reformatory inmates are feeble-minded. If four per cent of the general population is feeble-minded, they contribute seven times as much to the number of delinquents as do the same number of normals. Assuming different per cents of the general population as feeble-minded gives the following ratios between the feeble-minded and normal as regards the frequency with which they become reformatory inmates.

Per cent feeble-minded in general population	Feeble-minded	Normal
4	7	1
2	15	1
1	30	1
.5	60	1

Likewise, if fifty per cent of unmarried mothers, or prostitutes, are feeble-minded, the following ratios are obtained for these particular classes of defective delinquents.

Per cent feeble-minded in general population	Feeble-minded	Normal
4	12	1
2	25	1
1	50	1
.5	100	1

IV. THE PROBLEMS OF MENTAL DEFICIENCY

THE specific problems that arise in connection with individual mental defectives when considered in detail are so numerous and varied as to almost defy classification. I shall consider only the main groups of problems without going into the details of further sub-classifications. Attempt will be made to state the magnitude and significance of each problem as it exists in Minnesota.

A. PROBLEMS OF CUSTODIAL CARE

Cases too low in intelligence, or handicapped by physical disabilities, as paralysis, to be capable of taking any useful training are called custodial cases. In the strict sense of the term, there are no cases so lacking in intelligence as to be entirely untrainable. But below a certain point the time and effort involved no longer gives returns that are worth while either from the standpoint of the case or the guardian. On the whole the idiot grade, with adult mental ages from 0 to 3 years, belongs to this class. These never get into the schools. They can not learn anything ordinarily classed as an occupation. They need the care almost of infants, and are thus a very severe burden on any home. Permanent placement in an institution for mental defectives is the only solution to their problem. There are probably 5,000 of this grade in Minnesota, about 4,500 of whom are still with their parents or other relatives. It would not be far from correct to say that to give them the care they are entitled to would take most of the time of 4,500 other persons in these homes. Of course, they are not getting such care. In many instances they probably suffer considerably for lack of it, because of the parents themselves being mentally defective. The problems here are humanitarian and economic. The cases are neglected and should have better care. The homes are heavily burdened and should be relieved. It now is taking the time of many to care for them, while if they were collected in any institution it would take relatively very few, and the care would be much better. Outside this, the State has no interest. They do not become delinquent, and they do not reproduce. They are the least in number, and should cause the least concern, even if they were as numerous as cases of higher grade.

B. TRAINING PROBLEMS

All imbeciles, with adult mental ages of 4 to 7, and morons, with adult mental ages of 8 to 11, are capable of taking useful training. The nature of the training must vary over a wide range to fit the range of mental levels. Imbeciles can not profit by any of the regular public school training. The higher imbeciles can learn simple occupations. Not many of them can be given adequate care and guardianship outside an institution. Imbeciles on the whole, therefore, require permanent commitment to the institution, and training in occupations that the institution can supply. There are probably about 20,000 of imbecile grade in Minnesota. A few hundred only are in the institution. A small number of the adult imbeciles are employed, mostly at quite irregular intervals, outside their homes. The great majority of them are with their parents or other relatives, without training, and much more of a burden than a help in the home. Some of them become delinquent, and quite a number, especially female, reproduce. The main problem, then with imbeciles is a very specialized training in an institution for occupations that the institution can supply. Minnesota has made only a slight beginning on solving it.

The training problems of morons are more complicated. The majority of morons can profit by some regular public school training in the three R's. This becomes of doubtful value with those whose adult mental age will not exceed nine years. Probably the majority of the morons could be so trained as to be able to make their way in the world outside the institution under proper extra-institutional, but permanent, guardianship. This possibility together with the fact of the very large number of moron grade make the right training of the morons the central and most important of all mental deficiency problems. Outside a minimum of the three R's, that training should be occupational and moral. The occupations should be carefully selected with reference to the level of intelligence required in them and the possibility of remunerative employment in them in the environment of the case. The public schools at present make practically no provision for the kind of occupational training morons should have, not even in the special classes for mental defectives. Since the home contributes most to the moral training of a child, the control of home conditions is implied in the moron's moral training. Home conditions of morons are likely to be poor, so that the proper moral training of the moron often presents the chief difficulty. Home conditions usually cannot be sufficiently reformed, leaving the

removal of the child from the home as the only alternative. This, again, requires commitment to the institution in most instances. In this case, however, the commitment would be only for the training period.

There are probably about 75,000 morons in the state; their final, adult mental age does not or will not exceed eleven years. A few hundred of these are in the School for Feeble-Minded. A few hundred more are temporarily in the four reformatories. 1,700 are in the special classes for mental defectives in the public schools. The remainder, that is, nearly all, of those of school age are in the regular grades. Where the remainder of the adults are is more or less of a question. A very large portion of them are with their parents, entirely or mostly dependent on them for a living. Another large portion is temporarily making an independent living, with frequent relapses to support from parents, other relatives, or the charities. Probably a small number, through continued and unusually favorable circumstances and personal traits other than the intellectual manage themselves and their affairs throughout their lives. The problem is to increase this small number to the maximum possible and to reduce the guardianship required by the others by occupational training that will make it easier for them to get remunerative employment; and by a moral training that will keep them out of trouble.

C. PROBLEMS OF HOME RELIEF

The burden of caring for cases of idiot and lower imbecile grade in the home has already been mentioned. But there are other home relief problems. In a good many instances the parents are, of course, of entirely normal intelligence. To the degree in which they comprehend the mental condition of the child, the parents are likely to suffer more than the mentally defective child. There are many instances in which a mother's time and energy is almost completely spent on a mentally defective child, who is in addition taken from one specialist to another, vainly seeking for causes and cures. Special tutors, and private schools for defectives are supported mostly through these cases. They demoralize the home from every standpoint and present a home problem that is exceedingly difficult to solve.

The normal brothers and sisters of a defective child suffer from the presence of the latter in the home. They receive less care and attention, and may have to do without many things because of depleted savings that are spent on treatment and training of the defective. Besides this, probably the worst of all is the atmosphere of depression, loss of am-

bition in life, effect on social relationships, and a diminished effort in every normal endeavor that the presence of a defective produces more or less on every adult member of the family.

Defectives left in the home often become incorrigible. This multiplies the trouble they cause in a home many times. An unusually aggravating situation arises when the parents, realizing the danger of the case becoming more seriously delinquent, are nevertheless unwilling to have him committed to an institution. Such cases, of course, require specially close guardianship, which the parents have lost the capacity to give.

The very large number of adult mental defectives who remain at home partly or entirely dependent on their parents for a living present an economic problem of a serious magnitude. The cost of their maintenance individually at home must necessarily be higher than it would be if they were in an institution. The relatively few families in which there are defectives pay these direct costs instead of the State as a whole. The help they can and do give the home is usually not required, and is more than offset by the extra trouble they cause, and guardianship called for. From an economic standpoint, the great majority of them are a liability, not an asset to the home. That liability to the parents of mental defectives in Minnesota must be many million dollars a year. The economic problems in general of mental deficiency will be considered further in a moment.

D. PROBLEMS OF DELINQUENCY

The fundamental problem here is the prevention of delinquency in mental defectives. This has already been considered indirectly in discussing problems of custodial care and of training. Let us turn to the questions that are raised by the defective delinquents that we have. There are between five and six hundred defective delinquents among the 2,000 inmates of the four reformatories and State prison. We can make only a rough guess at the number of defective delinquents there are outside these corrective and penal institutions. The number of defective delinquent inmates of these institutions at the present time is, of course, only a small per cent of those who have been there, but have been discharged. Not one in ten who are seriously delinquent and come to court are sent to a penal institution, while those that get into court are again only a small portion of a still larger number of offenders who escape apprehension or court trial. Again, we do not know whether the percentage of defectives among delinquents in general is as high as among

reformatory inmates, although we have no reason to suspect that the difference here, if any, is very significant. But we can at least make a suggestive estimate and statement about this question. Multiplying the above number of defective delinquent inmates of penal institutions by ten gives us five to six thousand defective delinquents in Minnesota; multiplying it by twenty, which probably is still no exaggeration, gives us ten to twelve thousand. Of course, not all of these are habitual criminals or even criminally inclined. Many have been misled into committing an offense through some unusual influence or circumstance, and the danger of their repeating is not so great. On the other hand, the defective who has become habitually delinquent is probably nearly always unreformable by any method in use at present. Some may cease to repeat in time, because the adolescent and post adolescent instincts and impulses that so frequently lead defectives into trouble decline with increasing age. But it is not reform. We can safely say that there are several thousand defectives in Minnesota who are habitually delinquent, and who will repeat their offenses in varied form for years to come.

Among the special delinquencies of defectives, those of sex are the most serious and difficult to handle. We have no means of determining how much sex immorality in general and venereal disease is increased through mental deficiency. More definite information is available about unmarried mothers. Of these the Twin Cities report about eight hundred a year, and probably half of them are mentally defective. This indicates that for the State as a whole there are at least a thousand mentally defective unmarried mothers a year.¹

The illegitimate children of these unmarried mothers become State dependents in many instances. Of those coming to the attention of the Children's Bureau a little over fifty per cent were left with the mothers. Such dependents are a special problem, because there is no special provision made for them. The State cannot very well offer them for adoption through its State Public School for dependent children at Owatonna, because they may turn out mentally defective. This can not be determined with any great degree of certainty during the first two or three years. For the same reason they cannot be committed as feeble-minded.

¹During the biennium ending June, 1924, 2394 illegitimate children were reported to the Children's Bureau.

E. ECONOMIC PROBLEMS IN GENERAL

The statement has been frequently made that it costs the State much more to neglect its mental defectives than it would to furnish adequate provisions for all. It is very difficult to determine just how much neglect costs each year. Exact statistics are lacking. But we can at least enumerate the ways in which neglect costs money, and make some suggestive statement again in each instance. I shall try in this way to give as concrete evidence as is possible of the correctness of this generalization about the costs of neglect.

1. *Costs to Relatives.*—The first item is one chiefly of waste, the cost of misdirected effort to cure, and to give a training beyond the capacity of the case, usually the regular school work, through special tutors or private schools. This applies to a small minority only, and may not represent a large total. Private tutors and private schools probably get about 50,000 dollars a year from Minnesota relatives of mental defectives. Of course, this cannot all be classed as waste. The satisfaction of a sentiment alone may be worth more than this to those who pay it. The extra advantages the cases receive are also worth something. But the State could do as well for them for much less than half the cost. The second, and chief item, of expense to relatives is that of maintenance at home for cases giving little or nothing in return, and the time devoted to care at home when this reduces the earning capacity of the family, as a whole. This may easily amount to several hundred dollars a year per case. Considering the very large number of cases to whom this applies, the annual costs to relatives for this may possibly reach 30,000,000 dollars. This assumes 300 dollars a year for 100,000 cases. Under an adequate State provision, these cases might on the whole about double their earning capacity, thus increasing the returns for their maintenance; the cost of their maintenance would be less, and the large number of relatives engaged in caring for them would be released for other service. A very large part, possibly nearly all, of this figure is therefore a direct loss under the present practice of neglect.

2. *Costs to the Schools.*—The costs to the schools appear in two forms. One is the per capita cost of maintaining them in the schools, the same as for normals. The other is the cost of loss of efficiency of teachers in teaching the normal children. If the mental defectives could profit more or less fully by the regular school work, their maintenance in the schools could not be classed under costs of mental deficiency. But the fact is that they profit by this only in a limited measure, some not at all

in any degree, none for the full period up to the age of sixteen years. The mental defective in the regular classes in the schools of Minnesota number about twenty thousand. The cost of their maintenance in the schools is over 1,500,000 dollars. Most of this is waste, because no useful returns are obtained. This waste at least must be charged to the costs of mental deficiency.

But this is not the main expense. The chief cost lies in the diminished returns for the expenditures for normal children. The mental defectives get the time and energy of the teachers quite out of proportion to their number. On the average, every teacher has between two and three mental defectives in her class. Could these be replaced by five to ten normal children the whole class would get more from its teacher. This cost of mental deficiency cannot be stated definitely in terms of dollars, and it does not show in the accounts. But it is there, and must be a very large item. If all the mental defectives were segregated into special classes from ten to fifteen per class, the number of children in the regular classes might be increased, with a saving more than equal to the extra expense of the special classes, and at surely no detriment to the normal children.

3. *Costs to Employers.*—Most of the adult morons are employed off and on outside the home. Their efficiency while on the job, ranges from zero to one hundred per cent of that of the normal person. But they get normal wages in most instances. This difference is only one part of the cost of mental deficiency to employers. The other part comes through the more frequent change in employees that results. A moron does not usually inform his employer as to when he will quit. There will be intervals when the employer is short a hand. And a new hand must be "broken in" more or less for most jobs.

There are about 75,000 adult morons in Minnesota. Let us assume their employment amounts to an equivalent of 30,000 being employed steadily throughout the year, and that they are paid on the average a thousand dollars a year. They would then receive 30,000,000 dollars a year. If they earned as much as seventy-five per cent of what the normal person does on the same jobs, the annual loss to employers would still be 7,500,000 dollars for their services while on the job. We are inclined to believe that if we had the actual facts they would show that employers lost several times this amount annually through mental deficiency, for we should take into account not only the inefficiency while

on the job, but also the cost involved in frequent changes of employees, and occasionally actual damages mental defectives do.

4. *Cost to Courts.*—Under direct costs to the court in trying a case comes the salaries of the judge, an attorney, a clerk, fees for several witnesses, and the cost of maintaining the court room and offices. The average cost of a trial would depend chiefly on the average length of time it takes, and this we do not know, especially not when the hearings on more or less minor delinquencies are included. A day's trial would probably cost about fifty dollars on the average. Let us assume a definite figure again as a basis for an estimate, and place the cost to the court of a trial at twenty-five dollars as the average. I suggested above that ten to twelve thousand defective delinquents probably come to court a year. This would give over 250,000 dollars a year as the average direct cost to the courts of trials of defective delinquents. To this must be added the cost of keeping some of them under probation, and other forms of guardianship by the court.

5. *Costs to the Charities.*—Under "Charities" we can include only the organized charities, excluding all individual and other irregular contributions made to help mental defectives. Even when this is done, the known facts furnish but a very inadequate basis for an estimate. The main assumption is that at least half of all aids and expenditures by the charities is for mental defectives. It is indeed hard to conceive of a family that has enjoyed ordinary health and a normal intelligence standing in need of charity. Poor health might be a reason, but as a matter of fact those of poor health who receive aid from the charities constitute a very small minority. Loafers and other unprincipled persons used to ask for and often receive aid, but modern methods of the organized charities more or less effectively eliminate these now-a-days.

The organized charities of the Twin Cities spend considerably over 2,000,000 dollars a year. The charities of the whole state surely spend twice this amount. This indicates that the mental defectives get at least 2,000,000 a year from the organized charities. How much they get a year from individual relatives and friends we have no means of knowing.

I have enumerated the costs of mental deficiency to (1) relatives, (2) the schools, (3) employers, (4) the courts, and (5) the organized charities. In (2) and (4) the general public obviously pays these costs in direct taxes for the support of the schools and courts. The minimum estimate for these two items is 1,750,000 dollars.

The amount spent by the charities is a voluntary tax, and of course, is not so generally distributed. It is important to realize that the costs in the remaining two instances, (1) and (3), are also paid by the general public, in the form of an indirect tax. That parents and other relatives should pay 30,000,000 a year for the maintenance of mental defectives, is, in the last analysis, just as much an expense to the general public as it would be if the general public paid it as a direct tax. For in the first place it is wealth and income that pay taxes, not individuals, and these parents and relatives have that much less on which to pay taxes. But chiefly, this maintenance is a waste, and means just as much to the general public as would a wheat crop failure on the farms. The costs of mental deficiency to employers is also an indirect tax on the general public. Employers must operate on a certain margin of profit. If labor is inefficient and costly more must be added to the price of the products that the general public buys. In a word, the public pays, not a part of, but the whole bill. The minimum estimate on the whole bill surely reaches 50,000,000 dollars a year. This is more than the total of all state expenditures and appropriations a year for all branches of the state government. State appropriation for mental defectives is now about 700,000 dollars a year, including state aid for special classes.

V. MINNESOTA LAWS AND PROVISIONS

THE laws and provisions made by the state for the care, guardianship, and training of mental defectives were already touched on in the first chapter in discussing the progress the state has made. I shall add the details now, the knowledge of which is necessary for those dealing directly with mental defectives.

A. PROVISIONS

Let us consider first the agencies the state has furnished to deal with mental defectives.

1. *Under the State Board of Control.*—The Board of Control has legal guardianship over all mental defectives committed to its care, for whom it may make such provisions as in its judgment the case requires and its means permit.

a. *Institutions for Feeble-Minded and Epileptics.* The old institution at Faribault, and the new one at Cambridge may admit feeble-minded and epileptics. The law makes no restrictions in admissions as to sex or age. But on account of the limited capacities of the institutions, about 2,000 for the two, discriminations must be made in favor of cases for whom admission is the most urgent.

b. *Children's Bureau.* The Board maintains this bureau to assist in the administration of the various laws concerning children, with which the board is charged. This involves placement and guardianship outside institutions. The Department of Mental Deficiency of the bureau has charge of such placement and guardianship of mental defectives, serves in their commitment to the guardianship of the Board, and assists in determining the best form of guardianship of cases not sent to institutions.

c. *County Child Welfare Boards.* On request of the County Board of Commissioners the Board of Control appoints three residents of the County two of whom must be women, on the County Child Welfare Board, or five members, if the County has a city of the first class. These, together with the County Superintendent of Schools, and one other person from the County Board, constitute the County Child Welfare Board. They serve without pay, but they may appoint a secretary and assistants, paid by the County. Nearly every County now

has a County Child Welfare Board. It performs such duties as are required of it by the Board of Control, including matters concerning the commitment of mental defectives, investigation of homes, placement of children, and guardianship.

d. *Research Bureau.* Since 1909 the Legislature has appropriated a small sum each biennium for "Scientific Research and Clinical Work," to be used as the Board of Control directed. This work was begun by a study of the family histories of mental defectives in the School for Feeble-Minded at Faribault, under the direction of Dr. A. C. Rogers, then superintendent of the school. But the need for clinical work, mental examination and diagnosis, has made it necessary to discontinue all research work as such, except what was called for in the methods used in making examinations. The examinations made at present include the following: (1) New admissions in the four reformatories. Selected cases at, (2) the State Public School for Dependent Children; at (3) the State Hospital for Indigent, Crippled, and Deformed Children; (4) cases brought to court for a hearing on feeble-mindedness; problem cases suspected of feeble-mindedness for (5) the Children's Bureau, (6) County Child Welfare Boards, and (7) relatives of cases, and over thirty different social agencies of the twin cities. By arrangement between the Board of Control and the State Department of Education, the Bureau also examines (8) all candidates for special classes for subnormals in the public schools throughout the state, except in the twin cities and Duluth.

2. *Under the State Department of Education.*—Any local public school may receive a state aid through the State Department of Education of a hundred dollars a year for every mentally subnormal child it places in a special class for subnormals, when this special class is organized and maintained according to the regulations of the State Department. These regulations are as follows.

(1) The class room to be used must be approved by the State Department.

(2) The teacher must have special training beyond what is required of the regular grade teacher, consisting of two years of teaching and special courses for special class teachers, equivalent to what is offered at the University of Minnesota Summer School.

(3) The maximum number of children in a special class for subnormals is fifteen. None not recommended by the State Department can be placed in it, even though no state aid is to be received for such a child.

(4) Candidates for special class must be given a medical examination by a licensed physician furnished by the local school, and the results reported on a blank furnished by the State Department.

(5) School records and other information for the candidate must be furnished on a blank furnished by the State Department.

(6) Each candidate must be given a mental examination by someone sent or approved by the State Department.

(7) Cases qualifying for special class must have an intelligence quotient, as determined by mental tests, between .50 and .85, and the mental age must be not less than four years.

B. COMMITMENT

1. *Procedure.*—Any reputable citizen, residing in the same county with the case, may petition the Probate Court for a hearing to determine the mental condition of the case in question. If the judge finds the petition sufficient, and the case is obviously feeble-minded, he may, with the consent of the County Attorney, himself hear and determine the matter. Otherwise, he shall direct the case to be brought before the court for an examination, notify the County Attorney to appear in behalf of the case, and designate two licensed physicians resident in the state, who, together with the judge, shall constitute a board of examiners. The judge shall notify the State Board of Control ten days in advance of the hearing, and the Board may designate someone skilled in mental diagnosis to attend the hearing, examine the case, and advise the board of examiners. If the case is found feeble-minded, the court shall commit him to the guardianship of the Board of Control.

2. *Kinds of Guardianship Under Commitment.*—The Board of Control determines how a case shall be managed and provided for after his commitment to their guardianship. He may be sent to the institution, (1) permanently, or (2) until such a time when management outside the institution seems feasible. Extra-institutional guardianship takes on varied forms. (3) Placement in a small group of others, housed together somewhat similar to the colony of an institution, but the cases are regularly employed outside in various occupations available in the community and fitted to their capacity. (4) Placed in separate, private homes selected for their fitness for this purpose. (5) Left with relatives or friends who agree, under a bond of five hundred to five thousand dollars, to give the case safe and adequate care, and that they will indemnify and hold harmless the state for any expense arising from any act of the

case while in their care. (6) Leaving the case at home, or wherever found, and cooperating with the home in giving necessary guidance and care.

C. TRANSFER

A superintendent of a hospital for the insane or other institution of which the Board of Control has charge may select mental defectives from among his inmates, and with the consent of the Board of Control, transfer them to the School for the Feeble-Minded, but the Board of Control prefers court commitment before transfers are made in order to put them definitely under the guardianship of the Board as with all other feeble-minded. Likewise, inmates of the School for Feeble-Minded may be transferred to a hospital for the insane, if according to expert and professional advice this is the appropriate institution.

D. DISCHARGE FROM GUARDIANSHIP

1. The superintendent of the School for Feeble-Minded, after study and observation of an inmate, may report to the Board of Control that in his opinion guardianship is no longer required, whereupon the Board may discharge that inmate from further care and custody.

2. Any parent, guardian, relative or friend of a person committed as feeble-minded to the guardianship of the Board of Control may file a petition for a hearing in the probate court that originally committed the case to establish that further guardianship is no longer required. The court may then (a) leave the guardianship as before, or (b) sustain the contention of the petitioner and discharge the case from further guardianship by the Board of Control, or (c) permit him to remain in the custody of a relative or friend, who will give security for his safe care and custody, and his appearance in court whenever required.

E. MISCELLANEOUS LAWS

1. *Marriage.*—Marriage of a feeble-minded person is prohibited. The penalty for knowingly and wilfully solemnizing any marriage contrary to law is a sum of not over five hundred dollars, or imprisonment not over one year.

2. *Rape.*—Sexual intercourse with a feeble-minded female other than the wife of the perpetrator is defined as rape in the law. The penalty is imprisonment from seven to thirty years.

3. *Abduction.*—Abduction, enticing or carrying away an inmate from the School for Feeble-Minded is a felony. The penalty is a sum not over one thousand dollars, or imprisonment over three years, or both.

VI. SUGGESTIONS FOR THE SCHOOLS

A. THE SCHOOLS' OBJECTIVE FOR MENTAL DEFECTIVES

THERE is a fair agreement on what the public schools should aim to do for the normal child. Though differently worded and different phases of the central aim emphasized at different times, we are agreed that the schools should aim to fit and prepare the child for the life he is to live. The public schools have accepted the mentally defective of moron grade at least for training. Preparing him for life calls for a very special kind of training. It follows then that the schools should be prepared to give this special training, or else renounce the responsibility they are now accepting. The parents of mental defectives, and, in a measure, public opinion in general prevents their doing the latter. But the demand that mental defectives be received in the schools and taught as others are comes only from the misinformed portion of their parents. This alone is not sufficient grounds for denying special training to defectives.

The state as such also accepts duties and responsibilities in regard to mental defectives, through its state aid for special training from the State Department of Education, and the State Board of Control, the legal guardians of all feeble-minded committed to their care. To carry out a program that is consistently in the interests of mental defectives and the general public requires close coöperation between the different agencies that deal with them. Minnesota has this coöperation to some degree, but much is still lacking, and none is called for by any state law or provision. My "suggestions for the schools," while given chiefly from the standpoint of the schools, will involve a coöperative program in which the schools might be willing to participate voluntarily, to the interests of all agencies as well as of the mental defectives themselves. This program will call for (1) a continuative name and address census of all mental defectives, to be secured and maintained through the schools; (2) special training for all mental defectives of moron grade in the schools; coöperation of the schools with (3) the homes of mental defectives, and with (4) the state agencies dealing with mental defectives.

B. A CONTINUATIVE NAME AND ADDRESS CENSUS OF MENTAL DEFECTIVES

The aim is to get a complete list of all the mental defectives in every community. This is to include the names and addresses, revised at least yearly by the addition of new cases, and removals through death and change of address, so that at all times there will be definite and complete information on who are mentally defective, and where to find them. It is obvious that this is the necessary first step towards doing anything at all for or about mental defectives.

1. *Way of Getting Census.*—If we are to get this census, it must come mostly through the schools. It requires a special examination to determine the presence of mental deficiency in the higher grade cases, and nowhere except in the schools do cases become available for such an examination. Where the local schools have a competent psychologist to make these examinations, the schools might very well maintain this census, and keep local and state agencies concerned with mental defectives informed. Where the local schools employ no psychologist,—and they do not in Minnesota excepting three or four instances—they should coöperate with other agencies when these latter wish to get the census. The census should be as valuable to the schools as to the state.

To keep up this census for a school all the children entering the first grade each year would have to be examined. A group test would suffice for making out a preliminary list of cases to be given an individual examination. The group test should be given towards the end of the school year, when the children have become accustomed to group work. Occasional re-tests, and examination of older children coming in from the outside would have to be made. In time this would give a complete census of mental defectives in the whole general population.

2. *Uses of the Census.*—Many things besides the census are needed. But the census must precede everything else, and much could be done with little or nothing more than we now have if we had the census. Briefly enumerated, the following could be accomplished in varying degrees.

(1) Special provision for all mental defectives, instead of for a negligible fraction of their number, as now.

(2) Early special training. About fifty per cent of the small number that do get this training now get it after the training period is mostly passed.

(3) Early correction of home conditions. This is of the highest importance because of the moral training involved.

(4) Commitment of cases when danger signs appear and before they become delinquent, instead of after.

(5) Enforcement of the anti-marriage law. This is almost entirely inoperative now because license clerks and those performing marriage ceremonies do not know who are mentally defective, outside the very small percentage of existing cases whom the courts have committed as feeble-minded and whose names are sent to license clerks by the Children's Bureau.

(6) Education of the community on the nature and needs of mental defectives, through first-hand observation of the cases as they grow up, and later.

(7) A good deal of voluntary assistance from employers, friends and associates who know and understand them. This would be many times more effective than assistance through any state agency ever could be.

C. ESTABLISHMENT OF SPECIAL CLASSES

Most schools with an enrollment of three hundred children have enough mental defectives to organize a special class. In many other instances enough could be brought together if transportation were supplied. A special class should be organized and maintained wherever there are ten or more children that need special training. There are sometimes apparent difficulties in the way of starting a special class. All can be readily overcome if foreseen and met by the right procedure.

Extra costs cannot be an obstacle in Minnesota, for the state aid received equals or nearly equals the total expense of maintaining a class. Instead of extra costs, there is a direct saving to the local school, for if left in the regular grades the direct cost would be the same as for normal children.

Lack of an extra room in which to place the special class is not a good reason. A regular class room can usually be vacated by crowding the children into other class rooms, to the advantage of all, if thereby the mental defectives can be eliminated from the regular grades. When this cannot be done, a "portable" class room can be built for about half the state aid for a special class for a single year.

Objections from parents may sometimes arise. But they will arise as readily if the mentally defective child is not promoted in the regular grades beyond his capacities. Actual experience has shown that the ob-

jecting parent is quite exceptional in the first place, and that the majority of objectors can be won over to the special class idea if they are approached in a sympathetic manner and the facts about the class and the children presented plainly. In any case, since the local school decides only whether it shall have a special class or not and the State Department of Education determines who shall be placed in it, the responsibility for any particular child being in a special class does not lie with the local school.

The stigmatization of the children placed in a special class is sometimes regarded as sufficient reason for not having one. Such stigmatization is never greater than the community makes it. And this depends very largely on how teachers and others handle matters. Everybody should be instructed never to speak to outsiders of the special class children as mental defectives, subnormals, or as having certain mental ages or I. Q.'s, and especially not in the presence of other children. The attitude of the other children is most likely to be the chief source of trouble, if there is any. As a matter of fact, however, this difficulty with the special class is almost entirely imaginary. So far as I know, no serious situation of this sort has ever arisen over any special class in Minnesota, or elsewhere, although I have known of some instances where there was considerable lack of discretion in guarding against it.

In Minnesota a special class teacher must have the same preparation as the regular grade teacher, plus two years of experience in teaching and a special training in mental deficiency equivalent to the courses offered for this purpose in the six weeks of Summer School in the University of Minnesota. Superintendents of schools have repeatedly failed to get their special class because no qualified teacher was available. They have depended on getting one "on the market" at the last moment. Very few are successful in this. The only sure way of getting a qualified special class teacher is to select a volunteer from the local teaching staff, and have her take the necessary special training to qualify. An adequate increase in salary must be offered as an inducement.

Delay in getting a special class organized often occurs through the inability to get a mental examiner from the State Department of Education more or less immediately on request. This is chiefly because all who are planning to have a special class want it to begin at the opening of the school year in September, and usually make their request for an examiner late in the preceding Spring, or even in September. These re-

quests should be sent in not less than six to eight months preceding the date when the special class is to begin.

The procedure in getting these examinations made and the children recommended for special class by the State Department of Education so as to receive the state aid was described in the preceding chapter on Laws and Provisions.

D. TRAINING FOR SPECIAL CLASS CHILDREN

If mental defectives could not be benefited at all by any special training the special class can give, their segregation into the special class would still be well repaid by the advantages gained for the teaching of the normal children. But special training can be of the highest value to mental defectives and to the community, if of the right kind and if given at the right time. For morons it can be made to mean the difference between a life spent in an institution after failure and delinquencies outside and a happy useful life in the community with a minimum of outside guardianship. To attain this latter end, however, the present special class curriculum, as followed in most schools, needs drastic revisions. A large part of it is copied from the institutions where they are concerned, on the whole, with children of much lower intelligence, and especially where training and fitting for outside guardianship has in the past not been much thought of. This does not fit the special class child. Two things should always be kept in mind in making out a curriculum. First, the mental traits in mental deficiency. Second, the future needs of mental defectives.

1. *Mental Traits as a Guide.*—*a.* Training for Improvement. Intelligence is relatively fixed and constant. As was noted before, we know of no cure for a defective intelligence. We cannot materially improve it by training any more than by drugs or by surgery. Whether or not a very slight improvement is possible by training is still a debatable question. This is equally true of any special mental function. Training can only increase information, knowledge, and skill, but not the mental functions themselves involved in acquisition. If this is accepted as substantially correct, we should eliminate from our present curriculum all activities whose aim is to improve general functions, as training of the senses, memory, attention, or judgment, as such.

b. The Final Mental Age. The final, or adult mental age of children in the special class ranges roughly from eight to twelve years. The intelligence quotient is the best indication of what this final mental age will be, and should be used to determine the training each child should

be given. A child should not be started on a task in which he is not likely to become proficient enough to be of practical value to him when he grows up. To make this adjustment in training tasks effectively requires some knowledge of the minimum mental ages required for success in different tasks. This knowledge is as yet rather fragmentary and uncertain. But at present the average curriculum does not take this into account at all, and a big improvement at least in this respect is possible.

c. Relatively Well Developed Functions. The adult mental defective is nearer the normal in some traits than in others. His training while a child should take advantage of this. In general, his sensory, motor, and rote memory functions are relatively good. His capacity for skill in manual tasks is especially marked for this reason, for this calls for a combination of senses, muscle coördination, and drill, or mechanical repetition, which becomes effective through a relatively good rote memory. Hand work has always been recognized as particularly well adapted to mental defectives. Likewise, they acquire miscellaneous information relatively easily, and learn extended tasks so long as rote memory is more or less the sole function called for. A striking illustration of this is the high grade moron's ability to learn the multiplication table, though he is usually unable to apply any of it in the simplest manner.

d. Relatively Poorly Developed Functions. These are associative memory, voluntary attention and will power, judgment and reasoning. In about every task that has to be learned these functions enter during the learning. For tasks, however, that finally become quite mechanical the teacher can in a measure take their place. Extended drill and practice may finally accomplish with mental defectives what less time and better effort and application will do with normals. Careful analysis of the task, teaching it step by step with close supervision on the part of the teacher may accomplish what better judgment and a little reasoning on the part of the learner will do. In selecting tasks for training morons the question is, therefore, not so much whether with normal children these functions play a part during the learning, but whether when well learned these tasks are quite mechanical, these higher functions being no longer much called on in the performance of the tasks. The consideration of this question will eliminate a great many things that morons might otherwise do satisfactorily. There are hundred of such tasks, especially with machinery in factories, that are quite mechanical, but require a little and constant attention. The moron fails in the con-

stancy of the attention. Other tasks are mechanical enough as a rule, but occasionally call for a little judgment or adaptation. The moron readily learns to drive an automobile with facility, but it would be risky to employ one regularly as a driver.

2. *Future Needs as a Guide.*—The moron is likely to require permanent guardianship throughout his life. This is best left with parents or other relatives while they live, if competent. Special training should fit in with this fact. What can the mentally defective child learn to do that he can apply in his own home? If there is such a home task for him, this is the first thing to teach him. This applies, of course, more to girls than to boys. Next, is any member of the family engaged in any regular occupation outside the home in which the defective child might be trained to be a helper? Third, what occupations are there in the community in which the family resides in which the child can be trained with profit?

Bearing in mind that morons fail to make good, not so much because there is not enough that they can do satisfactorily, as because of the lack of moral traits and inability to manage their affairs with earnings that would suffice for a normal person, their training should first of all aim to correct these defects. This can be done in some measure in the special class, but the home must be made to coöperate.

3. *Subjects to Be Taught.*—In the foregoing I have tried to give some general suggestions as a guide in selecting training tasks for special class children. *There is no difficulty whatever in finding things that morons can learn to do satisfactorily, and in which they will have an opportunity to find employment on reaching maturity. The difficulty lies all with the schools in making the innovations of teaching things out of the ordinary and for which they are not equipped.* The following will give a few illustrations of things that should be in the special class curriculum. First, let us consider how much of the regular grade work should be included.

a. *Regular Grade Work.* A good deal of time now is wasted on this in special classes, because children do not get far enough to make what they learn of any practical value. This may be seen from the following table of I. Q.'s, final mental ages, and the highest school grades children with the corresponding I. Q.'s may be expected to be able on the whole to finish.

Present I. Q. -----	53	60	67	73	80	87
Final mental age-----	8	9	10	11	12	13
Highest school grade--	II	III	IV	V	VI	VII

These figures represent general rules. There are more or less marked exceptions, both with individual children and with the school subjects. The main exception with the latter is in number work. Mental defectives usually do not get as far in this as might be expected of their I. Q.

If a child cannot finish third grade at least in any school subject, it is hardly worth while to try to teach that subject at all. This means that children with an I. Q. of less than .60 should not be given any three "R" work. The reading and writing they will learn by taking these subjects until they are sixteen will be of no practical advantage to them. For those with a little higher I. Q. modified three "R" work should be given. Ability to read names, labels, signs, and so on, count, and do very simple number work, is of considerable value in everyday life and in some occupations.

b. *Moral Training.* Moral training is to be taken in the wide sense. Much can be done in the special class, especially if a considerable part of the special class training takes place, as it ought, outside the schoolroom, in shops, stores, and on jobs. The coöperation of the home should be secured on some matters of moral training. Good manners, politeness, consideration and respect for others, and obedience can be taught in the class room and on play grounds. Neatness, cleanliness, hygienic and regularity of living, especially regularity of meals and of sleeping hours, might be obtained through coöperation with the home. Faithfulness towards employers, industriousness, the habit of sticking to a job instead of frequent changing, and saving of earnings might be taught somewhat to the older children while enrolled in special class and in vocational guidance after that. Could these things be done in any considerable measure, the moron would need very little else to make him independent of outside guardianship later. They can be done without any difficulty so far as they concern class room and play ground activities only. Where they affect employers it is not so easy to follow a set program without compromises. The chief difficulty is always in getting the coöperation of the home, for it involves changing some of the fixed habits and ideas of the parents about bringing up children.

c. *Pre-vocational Training.* For want of a better term, I shall use this one to cover the training to be given that is to lead up to vocational or job training, before the necessary age and physical maturity

for the latter is attained. The amount of three "R" work to be given as suggested above is not sufficient to fill this interval for even the higher grade morons. It is the most difficult part of the curriculum to provide for in a satisfactory manner. The present program of various kinds of "hand work" is as good as any so far suggested, but most of it should not be continued as it now is, beyond the age of about ten or eleven. I refer to such things as net, and rug weaving, basket making and caning, brush making, simple sloyd and wood work, toy making, and so on. As occupational training it has no great value, except in rare individual instances. The children have no opportunity to get employment later in this kind of work. It serves the purpose, however, of developing sensory-motor coordinations and other associative functions that normal children acquire in everyday activities outside of the school room. It has also been a good way of winning approval and cooperation of parents concerning the special class in general.

d. Vocational or Job Training. Next to moral training as described above, this should be considered the most important. There is no such thing as entirely unskilled labor. But there are many kinds of work where the skill involved is so slight that the normal adult readily acquires it on the job, without any preliminary training. To make the moron the equal of the normal person in unskilled and semi-skilled jobs requires special training in these jobs.

Because of the variety of household tasks, it is much easier for the special class to give girls appropriate training than is the case with boys. The following is a list of things that should be taught to every special class girl of sufficient intelligence.

1. Plain cooking—meals for average family.
2. Family laundry work, washing and ironing.
3. Dusting and sweeping.
4. Cleaning woodwork and windows.
5. Plain sewing and simple garment making.
6. Mending.

It may seem that some of these tasks should require no special training even for a moron. But, granting that a trained moron will do these things satisfactorily, the following is what an untrained moron is likely to do in dusting, for example. This is about the simplest of the tasks in the list. She will leave the dust in the corners and angles of furniture, and dust only the main surfaces. She will not know when and where to use a dry cloth, wet cloth, oil cloth, or feather duster. She is likely to

use the oil cloth to dust the upholstery as well as the wood on the furniture, and so on. Such details, which common sense would take care of in the normal person, need to be taught step by step in the case of the moron.

Housemaid service is the best field for moron girls, not only because the work is well adapted to their abilities, but especially because it offers better conditions for necessary guardianship later. But there are innumerable tasks outside the home for which they might be trained. Among such tasks the following are a few suggestions.

1. Dishwashing in restaurants and other large kitchens.
2. Preparing vegetables in large kitchens.
3. Work in bakeries.
4. Canning factories—preparing vegetables and fruits, filling, sealing, labelling cans, and packing.
5. Waiting on table in restaurants, and so on.
6. Power machine sewing and other work in garment factories.
7. Work in steam laundries.
8. Packing boxes, labelling, sorting, etc., in factories and stores.
9. Any other simple, routine work in factory or store in which the task does not vary.

It is more difficult to give boys proper vocational training, because there are fewer jobs training for which the schools can readily equip themselves. More of it must be obtained outside. The following would be appropriate jobs.

1. Janitor service for small apartments and stores.
2. Elevator operator.
3. Bell boy.
4. Waiters in restaurants and hotels.
5. Messenger boy service.
6. Teamsters.
7. Auto truck driver—Heavy slow moving trucks, and outside of traffic.

Helpers to following:

8. Delivery man.
9. Carpenter.
10. Plumber and steam fitter.
11. Mason and plasterer.
12. Blacksmith.
13. Dairy or general farmer.
14. Auto repair man, and in tire shop.

It is obvious, of course, that the schools cannot furnish work in all of these various lines in order to give special class children vocational training. But they can in some of these I have listed and in a great many others. Where the work cannot be brought to the class room, the children can be taken to the work outside, to homes, factories, and stores. This applies to the older children while still enrolled in the schools. It involves arrangements with and the coöperation of employers. But this is possible. Employers will coöperate if coöperation pays. They should not be expected to do so if it doesn't pay. Since the children will give their service free in return for the opportunity to learn a job and the instruction they may get from employers, there will be no question about it being worthwhile for the employer. The special class teacher should make these arrangements, and where possible and necessary closely supervise the child on the job. In some instances the employer would become the instructor and supervisor on the job. Inasmuch as the work is done for training and not for pay, it will violate no child labor law.

E. CO-OPERATION WITH THE HOME

This is quite as essential for the success of the special class as is what is done in the class room. When parents object to the special class an effort should be made to show them what the child's limitations are, and that it is hopeless to try to put him through the regular grades. Then acquaint them with the work of the special class, and show them the greater and more useful capacities of the child in what he is doing there. In any case, whether parents object or not, they should be instructed in the need of special moral training, of the permanency of the child's mental deficiency, and that some outside guardianship will always be required.

The special class should assist the parents in the home training of the child. It should give the parents a detailed program of daily procedure, if necessary, and make frequent visits to the home to inquire how matters are getting on, and to advise further where further advice is indicated. The main things the special class should help to regulate are regularity of daily habits, especially as to meals and sleeping hours, associates, recreation and amusements in unoccupied hours. If a child is brought up with thoroughly fixed, good habits with reference to these matters alone, the chances of delinquencies later even with mental defects are small.

The kind of vocational or job training given the child should be determined only after carefully taking into account the home and the parent's wishes, as well as the child's special inclinations and abilities. The social and economic status of the family should be a factor in deciding on the training of the child. Parents may object strongly to having their child trained for housemaid work, but consent readily to training for some factory or office job that may require less intelligence and give less pay.

Lastly, the special class should coöperate with the home in giving vocational guidance for some time after the child has left the schools and is employed. This should consist of helping to find the right kind of jobs, instructing the employers in whatever way may appear necessary or advisable, and advising the child about his job and relationship to his employer.

Attempt at such coöperation may sometimes cause resentment and the feeling that the schools are attempting to interfere with private matters of the home that are quite outside their realm, unless the coöperation is sought with unusual tact. The family itself must be studied with reference to the possibility and kind of coöperation likely to succeed. In no case should antagonisms be allowed to arise. When they do appear it is better to withdraw entirely, until a situation arises calling for legal interference. A family is more likely to work out its own problems alone than with the attempted help of outsiders whose assistance is undesired.

F. CO-OPERATION WITH SOCIAL AGENCIES

It is not a good plan to have more than one party or agency try to help a family. The special class should select the cases that are best handled by other social agencies, by the County Child Welfare Board, and refer these cases to them for supervision. Into this class should be put (1) children with delinquencies or evident marked tendencies to delinquency; (2) grown up cases two or more years after they have left the schools; and (3) cases where the home conditions call for radical treatment because of serious neglect of the children, or other very bad influence on them.

VII. SUGGESTIONS TO COUNTY CHILD WELFARE BOARDS AND SOCIAL WORKERS

COUNTY Child Welfare Boards and social workers in general know how large a portion of their work concerns mental defectives. It is therefore *apropos* to consider those special phases of social work that mental defectives give rise to.

A. ATTITUDE AND POINT OF VIEW

Occasionally even the trained social worker of years of experience fails to help her case because of the antagonism of the latter or of his relatives instead of their coöperation. This is much more likely to happen with mental defectives than with normals. Failures are due to the inability on the part of the case or his relatives to see that the social worker is trying to help him instead of forcing something upon him not in keeping with his best interests. It, therefore, becomes of special importance in working with mental defectives to maintain the attitude and point of view of service to the case presenting a social problem or likely to do so in the future, instead of the point of view of serving the state, community or particular social agency employing the social worker.

In the last analysis, there should be and is no difference between these two points of view. The interests of the individual and the state are not antagonistic. But the attitude and manner of work resulting from the one point of view or the other may make a world's difference in how a case reacts and in the success of the social worker's efforts. The first thing that should be done, therefore, is to make a special effort to convince the family and the case in question that you are coming to help them out rather than to bring them to account for some shortcoming. Success in this may really solve a social problem through coöperation and self-help, where law enforcement without coöperation fails to solve it about as often as it succeeds. This is all the more necessary in cases where no delinquency yet exists, for in such instances the social worker's visits are more likely to appear to the family visited as meddling and uncalled for.

B. PREVENTION VS. SOLUTION OF SOCIAL PROBLEMS

Minnesota makes no legal provision for preventive social work with mental defectives. The activities of state agents are limited to those

who have already become social problems. But social workers not employed by the state are not so limited. They could probably accomplish more in the field of preventive work than in trying to solve social problems after they have arisen. The time when the mental defective or his parents can be helped most is before he has become a problem. Laws cannot in any great degree regulate the mental defective's life so as to prevent the formation of bad habits, eliminate the influence of bad associates, and of detrimental factors in the environment so long as he is breaking no laws, but the private person or social agency can, if his coöperation can be secured voluntarily.

C. HOW TO LOCATE THE MENTAL DEFECTIVES IN A COMMUNITY

1. *Schools.*—The schools are the best single source of information. Where a special class for subnormals exists and the schools have already been surveyed to establish the class, the social agency should go over the enrollment, inform itself about each child and family and select those that need and are likely to be benefited by a social worker's efforts. Where there is no special class, such a working list of cases should be made up from studying the teacher's reports and school records. A good rule to follow for older children is to divide the school grade the child is in by the number of years he has been in school, using fractions of a year in both instances. For example, suppose it is near the first of December, and the child is in the third grade. This is his fifth year in school, so that he has attended school $4\frac{3}{4}$ school years. He has finished only $2\frac{3}{4}$ school grades, assuming that he is doing passing work in third grade. Dividing $2\frac{3}{4}$ by $4\frac{3}{4}$ gives .54. This figure may be regarded, roughly as the equivalent of an intelligence quotient. It becomes unreliable chiefly when the child is not placed properly in the grade, according to his ability, and the figure obtained is often too high because mental defectives are promoted beyond their abilities to do the work.

2. *Churches.*—In the smaller communities, and especially in the case of some denominations or particular ministers, the churches can give much valuable information, and many mental defectives can be located through the coöperation of ministers.

3. *Courts and Police Departments.*—Probate courts and police departments can furnish the names of delinquents or troublesome cases. Their conduct records may be used as a point of departure for getting further information.

4. *Clinics.*—Whenever possible, the County Child Welfare Boards should arrange for a mental clinic, to be held periodically as often as a sufficient number of cases accumulate. The Research Bureau of the State Board of Control can hold a limited number of clinics each year. The procedure is as follows. The local Board or agency selects fifteen to thirty cases and arranges for them to appear for examination. If there is no delay in bringing in the cases for the examiner, twenty to thirty cases can be examined in a week, depending on their ages, grade of intelligence and other matters. The Research Bureau will send one examiner and one social worker at the beginning of the week. The local worker should collect all the social and family history data possible about the cases. The Bureau will furnish a brief outline to follow in gathering this data. When our social worker arrives she will go over this data and help the local worker supplement and complete it where necessary. The director of the Research Bureau or of the Department of Mental Defectives of the Children's Bureau will arrive after the mental examinations are completed. All will then meet together to go over the cases for diagnosis and recommendation.

Since there are no state provisions for making these clinics free, the County or other local organization has to pay. This will amount to about one hundred twenty-five dollars for a full week, outside of railroad fare.

The clinic will probably result in the classification of the cases as follows:

First, cases recommended for commitment to the guardianship of Board of Control and to be sent to the School for Feeble-Minded, temporarily or for an indefinite period.

Second, cases recommended for commitment to the guardianship of the Board of Control for extra-institutional supervision.

Third, cases recommended for assistance and voluntary supervision, but not for commitment at present.

Fourth, cases of too high intelligence to be committable as feeble-minded but requiring some attention for other reasons.

Fifth, cases of too high intelligence to be committable as feeble-minded and needing no further attention for any other reason.

From this classification will be derived a list of the cases to be prepared for a hearing in Probate Court for commitment as feeble-minded. After these hearings have been held a final list may be made up of the cases to be supervised in the community.

D. PREPARATION FOR COURT HEARINGS ON FEEBLE-MINDEDNESS

There is no need of having a hearing on a case of mental deficiency so long as he can be properly taken care of at home, and presents no immediate problem. This applies especially to many younger cases who have good homes. For the others, the petitioner for a hearing should be prepared to answer two questions. First, is the case mentally deficient? Second, does he need state guardianship?

The evidence will be somewhat different for adults from what is needed in the case of children.

1. *Evidence in the Hearing for Children.* a. *Mentality.* A mental test examination should always be given, except where the mental deficiency is quite obvious from the other evidence to be presented. The tests used should be either the writer's or Terman's revision of the Binet-Simon tests. The tests should be given by one fully qualified to do so, and should not be used in abbreviated form.

The school record should be the second line of evidence. For the court hearing this should give the time the child has attended school, and what grade of school work he can really do. The child's present teacher, if available, should give this testimony, provided that her opinion on this agrees with the more or less obvious facts. Sometimes a teacher has a very erroneous opinion. This can be determined roughly in younger children by a brief test in reading, writing, spelling and number work. When the child is quite obviously much retarded in school work a very brief demonstration test of this sort might be given in court for the judge and examining board to witness.

Third, when the child is of pre-school age, and sometimes with older children, the development and medical history should be given. It is necessary in this to eliminate all matters that are obviously not of considerable importance, but should always include the following questions.

1. Was birth normal?
2. Any convulsions?
3. Paralysis?
4. Severe illness, especially, cerebro-spinal meningitis?
5. Age when child first walked unsupported. (Average is 14 months.)
6. Age when child first fed itself with spoon or fork. (Average is 18 months.)
7. Age when child first used several words. (Average is 2 years.)

Evidence of hydrocephalus, cretinism, and Mongolianism should be noted.

b. Home conditions. If mental deficiency is established as a fact, the next question is that of need of state guardianship. This may be necessary because home guardianship is inadequate, the home being broken up by death, separation, or absence from home of parents. Or, the guardianship may be improper because of bad influences in the home. Or, the presence of the defective child may be an unusual burden on the home.

2. *Evidence in the Hearing for Adults.*—a. *Mentality.* Mental test results and school records should be presented as in the case of children. His occupational history and history of his conduct should be given both as evidence of intelligence and as evidence of need of state guardianship. In the occupational history the kind of jobs he held, how long he held each, the reasons for quitting, and the length of intervals between jobs are of much more importance than testimony on the quality of work he did in any. Employers usually know very little about this and will testify that his work was satisfactory or average when as a matter of fact this is nothing more than a guess, because they have no information on which to make a comparison.

The history of his conduct should be obtained with the greatest care and thoroughness, for the result of a court hearing is, in most instances of high grade defectives, determined more by this than by anything else. It should cover his conduct at home, in school, away from home, and while on jobs. Make sure that you get as complete a list of delinquencies, with ages, as possible.

b. Home conditions. Consider the same matters as in the case of children, remembering, however, that the adult mental defective requires a guardianship different from that of children. A home may provide adequately for a child, but later fail to do so when the child reaches maturity.

An important matter in presenting evidence in a court hearing is to know definitely beforehand just what testimony witnesses are going to give. They should be interviewed to determine just what they know firsthand about the case, always keeping clear the distinction between opinions or conclusions they have formed and their real observations as to the concrete facts. This applies especially to evidence on conduct and quality of work on jobs.

E. SUPERVISION IN THE COMMUNITY

The first essential for success in supervising mental defectives in the community is a definite system of procedure. The chief cause of failure is letting things go until something happens. For in most instances this something is the result of more or less established habits of the case in question or of chronic conditions at home—both equally incurable, as a rule.

Make out the list of cases to be supervised. Study the traits of each case, his parents and his home, and decide on a mode of action. Make out a schedule of visits, and keep detailed records to guide you in the future. These visits in themselves will at best not afford much guardianship, but they will keep you informed on what is needed and enable you to instruct parents more intelligently. The real guardianship must come from those who have the case daily under observation, that is from the parents. There are a few things of a general nature that should be regarded as essential for parents to understand before their guardianship should be accepted as adequate. The social worker's first duty with the parents should be to see to it that they do understand and are trying to act accordingly. Parents should know that a child in question is not like ordinary children, that he can't do what others can, and that he needs special training and permanent guardianship. It is better to tell them in concrete terms what the child may be expected to be able to do, instead of telling them that he is mentally defective, or feeble-minded. These latter terms are more likely to arouse resentment, simply, than to convey any definite idea about the child's needs. It is especially important for them to know that the child will probably (or surely, if it is evident that his final adult mental age will not exceed ten years) never be able to make his own living and manage his affairs independently of any outside care. They should know, also, in case of definite feeble-mindedness, that it will be illegal for the case to marry after reaching maturity. Make plain to the parents that the child is much more likely than normals to get into bad habits, and that his moral training, taken in the wide sense, needs special attention. No mentally defective child, or adult, should be permitted to run the streets without the parents knowing where he is, what he is doing or with whom he associates. There should be absolutely regular hours about meals and sleeping, and no late hours at night.

In the case of adults, the additional matters to be looked after are employment, the spending of earnings, and conduct relative to sex.

Decide what kind of employment is best fitted to the case and help him find it. Instruct the employer in whatever seems necessary or advisable. Coöperate with the parents and case in getting good habits of saving and spending established, remembering that the failure to accumulate savings is in itself not as bad as indiscreet spending. Defectives should not be allowed callers and associates of the opposite sex. This is the only way of really preventing marriage of the feeble-minded, at present. It is an absurd procedure to do nothing to prevent love affairs and then tell them they cannot marry.

VIII. SUGGESTIONS TO THE COURTS

IN the hearing for feeble-mindedness the court's task is to determine whether the case in question is "so mentally defective as to be incapable of managing himself and his affairs." So far as this is related to the interpretation and application of the definition of feeble-mindedness the matter was discussed in the chapter on definitions. I shall take up here some of the other phases of the court hearing. My own experience in attending these hearings as advisor to the examining board sent by the Board of Control has led to certain definite conclusions, which are given in what follows.

A. THE EXAMINING BOARD

The law requires that this board shall consist of the Judge and two physicians appointed by the judge. That physicians should be specified is undoubtedly based on the popular idea that physicians as such have a special qualification for such a board. The idea would be well founded if feeble-mindedness were a disease, but it is not, usually not even the result of disease, and medical training does not give them much helpful knowledge nor does medical practice give sufficient experience with the feeble-minded to increase their abilities to distinguish mental defectives from normals. It is usually the custom of the courts to appoint these two physicians on the day of the hearing, choosing any two most convenient, who then hear evidence and question the case in court. As a result this examining board, if unassisted, usually fails to find anyone feeble-minded who is above imbecile grade.

This situation and procedure could be improved, even without any change in the law. First, the court might select certain physicians whom he thinks could give the best service on the boards, instead of appointing them haphazardly. Second, the same two physicians might be called in to serve in every hearing, giving them a chance to improve through experience, and an occasion to prepare themselves a little for it, as well as arousing more responsibility for the work. Third, they might be informed of each hearing some time in advance, giving an opportunity to make some investigation before reaching the court room. The court room and court surroundings and circumstances makes the poorest setting imaginable for a mental examination. Fourth, if the Board of Control cannot send someone to make a special examination and to advise the

examining board, an effort should be made to get someone else to at least give the Binet-Simon tests to the case, if a more or less experienced mental tester is available.

B. MENTAL TESTS AND MENTAL TESTERS

Space cannot be taken here to discuss this in general or systematically. I will limit remarks to giving answers to questions repeatedly asked in the court hearings.

There are over a hundred different groups or systems of mental test published by as many different authors. Less than a dozen of these systems are designed for or adapted to making examination individually. All the others are for examining a group, such as a class of school children, together at a time. The tests for individual examinations are, with an exception or two, all revisions and extensions of the original Binet-Simon scale, appearing first in 1908. The result of an individual examination is much more reliable than the result of a group test for any particular case examined. Results of the two kinds of tests, group and individual, should not be compared, for the reliability or lack of it of one kind does not indicate anything about the reliability of the other. Only the results of an individual examination should be considered in a court hearing. The earlier revisions of the Binet-Simon tests are out of date and not the best to use.

For several years after the World War, the writer never attended a court hearing without the army test results about the average mental age of the American Soldier, or the absurdly large number of persons who according to the results would be mentally defective, being brought up to discredit the Binet test result with the case having a hearing. The army tests were entirely inadequate to give any evidence on these two questions, and besides were given under extremely unfavorable conditions.

Lack of schooling, or foreign parentage (provided the case speaks English well enough to carry on ordinary conversation) does not affect the result with the Binet-Simon tests in any material degree.

The mental age of a case represents his general mental ability which ordinarily increases with age up to mental maturity. The intelligence quotient is mental age divided by age, and on the whole remains about the same from birth to maturity. It has a general tendency to decrease a point or two a year with morons and borderline cases, and less than one point a year for imbeciles and idiots.

It is not essential to know what particular mental traits or functions as memory, judgment, will, etc., each test in the Binet-Simon system measures, so long as we know that a case with a given mental age as found by the tests, has in general the abilities of the average normal child of the corresponding chronological age.

The reliability of the results with the Binet-Simon test depends a good deal on the examiner. Both technical scientific training and experience in using the tests are usually required to make an examiner reliable. A few without the former but with extensive practice in using the tests get trustworthy results. Graduation in psychology from a good college or university and the examination of about a hundred cases should be regarded as a minimum for qualifying an examiner. Physicians, the same as others, testifying on the results they obtained with mental tests should be questioned as to their qualifications as mental testers. Ability to manage cases so as to get their full coöperation in the tests is an essential trait for an examiner.

All Binet-Simon test scales can be used in abbreviated form, by using only part of the tests in each age group of tests. An examination should not be regarded as complete, if less than six tests in each age group tried, have been used, or if the testing has not been carried to the point where all, or all but one test in the lowest age-group tried, have been passed and all or all but one or two in the highest age-group have been failed in.

Partial deafness or blindness, paralysis, speech defects, difficulty with English, lack of effort in the tests and disturbances during the tests make the results less reliable, but the experienced examiner can estimate their influence and give lower and upper limits between which the correct result surely lies. In any case the mental test result is the best evidence on the intelligence of a case in question that can be obtained.

Arrangements should always be made to have the mental test given entirely in private, with no third person present. It takes from one to two hours to give the test.

C. THE TESTIMONY OF WITNESSES

Assuming that the case in question has been given a mental test examination and that there are no special reasons for discounting the trustworthiness of the results, and further that this result shows that the case is mentally defective, the question that may remain to be decided from the testimony of other witnesses is that of the need of state

guardianship. It is customary in most courts to use part of this evidence as a further means of determining the *grade of intelligence*. This is a mistake. *The test result alone should be used to answer this question.* But lack of intelligence alone does not always determine the need of State guardianship. Some individuals get along in the world better or worse than others who have the same intelligence. I have in other chapters already discussed the questions on which testimony should be sought, and will limit myself here on how the testimony usually given by witnesses in a hearing on feeble-mindedness is to be evaluated and used.

The first important matter is that of keeping a clear distinction between statements of actual facts of observation and statements of opinion, and various inadequacies of questions used. Most of the testimony given that can have any bearing on questions to be decided is statement of opinion; opinion that is wrong about as often as right. This is due to the interrogator sometimes as much as to the witness, because the question calls for a generalization instead of an observation of a fact or because it is inadequate in some other way. I shall try to make this clear with a number of illustrations of questions, answers, and comments. The following are typical questions selected from the different lines along which the questioning may be directed.

1. "What kind of school work does he do?" (Asked of teacher.) Answer: "About average." This information as it stands is worthless. The work may be average for the grade he is in, but it might be the second grade, for example, while he is twelve years old. Also, the statement is the teacher's opinion, the result of her own subjective comparison of his work with that of other children. Unless his work has been measured by objective tests and his score was found to be near the average score for other children, the teacher's opinion is often wrong by two grades.

2. "Does he read the newspapers?" Answer: "Yes." "Reading the papers" may vary from looking at the pictures of the comic sections with the bare ability of making out some of the accompanying comments to reading all the news and articles with interest and comprehension.

3. "Can she do housework satisfactorily?" Answer: "Yes." Housework is varied. A low grade imbecile could scrub a rough board floor so as to be satisfactory to most housekeepers having such, but the best moron would fail to cook the Thanksgiving Day dinner satisfactorily

in the bank president's home. Neither the question nor the answer indicates what either has in mind.

4. "Can he do farm work satisfactorily?" Answer: "Yes." Same kind of comment as in three.

5. "How much did he get a week?" (Referring to some particular job.) Answer: "Eighteen dollars." The only possible object of the question is to show earning capacity. But no isolated instances can show anything on this. Wages are gauged by the nature of the job, and employees are assumed to have the capacity to earn them, otherwise they would not be employed. Only a more or less extended work history could decide earning capacity.

6. "Was his work satisfactory?" (Referring to some particular job.) Answer: "Yes." The employer answering, probably oftener than not does not really know just what kind of work the case in question did, having observed him on the job but little or not at all. He assumes that the work was satisfactory so long as he has discovered nothing to the contrary. He employed him with that assumption in the beginning. If he has made observations and comparisons, his answer is on a par with that of the teacher testifying on the quality of school work a child has done.

7. "Has her conduct been objectional in any way?" Answer: "No." The question implies that the witness has been in position to know at all times what the conduct has been. Then it asks for an opinion on that conduct.

8. "Tell what you know about his moral character." This way of procedure might be very good, if the witness were entirely unbiased and if he had a mind trained to distinguish between first hand observation and hearsay, and between actual observation and inference and opinion. But such a witness is a very rare exception, and the testimony is nearly always a more or less worthless mixture from which it would take a long time to sift his own and actual observation on what he has heard the case say and has seen him do that would indicate anything about moral character. Besides this, prejudice or erroneous judgment on what is important would cause the witness to omit things he does know.

9. "What are the home conditions?" Comment similar to that in "8," and the additional fact that this again asks for opinion as much as for facts.

10. "Are you able to give her proper care and guardianship?" (Asked of parent about case.) It is an exceptional parent who thinks

he cannot, and is willing to admit it in court, unless he is anxious to get the case committed. His testimony is not likely to give any evidence on this question. The question asks for an opinion from a very biased witness.

The above are typical questions. The writer has heard them and similar ones many times in Probate Court hearings on feeble-mindedness. Undoubtedly the greater restrictions practiced in the higher courts would rule out most of them in the beginning. But they illustrate the difficulty of making an investigation and finding the facts that are essential to know in court by the procedure the court is obliged to follow.

D. WHAT CONSTITUTES NEED OF STATE GUARDIANSHIP

Assuming that the facts have been established in a hearing, including the fact that the case is mentally defective, how are they to be interpreted in regard to the question of need of State guardianship? State guardianship is needed when, in addition to mental deficiency as the main contributing cause, the following is found.

1. When the case because of low grade of intelligence or other accompanying trait or circumstances of the family is a severe burden to his home.
2. When the case is a serious delinquent or shows that he is in danger of becoming seriously delinquent.
3. When the case has reached maturity and there is no reasonable assurance that his or her marriage will be prevented.
4. When the case has no legal guardian.
5. When the care and guardianship is not adequate.

IX. SUGGESTIONS FOR A STATE PROGRAM FOR MINNESOTA

MINNESOTA has some excellent provisions for the training and guardianship of mental defectives. But, as in most states, there is no consistent, coherent program, designed to bring together and co-ordinate the different activities and agencies. The good measures and provisions we have stand more or less isolated, without relationship to each other. Again, everyone of them lacks details essential to real success. The following is an attempt chiefly to suggest supplementary provisions aimed to overcome these defects.

1. *A Continuative Name and Address Census.*—The average citizen does not recognize the moron as mentally defective. But the state depends on him entirely to initiate proceedings to determine when a case is feeble-minded, that is to call for hearings in the Probate Court. We must know who our mental defectives are before we can do anything for or about them. This is the absolutely necessary first step to take. The State should provide for the maintenance of a census of mental defectives, giving the names, addresses, and other necessary information about every case in the State.

This census should be secured through the mental examination of all children in the first or second grade in the schools each year, supplemented by the examinations of others as found necessary. This would make possible the application of the laws and provisions for mental defectives that we have. But its chief value would probably be in the resulting education of the general public in regard to the nature and needs of mental defectives. The provisions for the census should include means of getting all cases found feeble-minded legally committed as such, so that the initiative in this would not be left to citizens in the community.¹ Legislation for special classes for subnormals in the schools should be brought into harmony with these provisions. I have discussed the methods, results and uses of this census in detail elsewhere.¹

2. *Revision of the Commitment Law.*—The present law leaves the hearings on feeble-mindedness entirely in the hands of a local examining board, consisting of the Probate Judge and two physicians he appoints.

¹Kuhlmann, F. A. A State Census of Mental Defectives. *Journal of Delinquency*. Vol. VII, 1923.

Aside from the impossibility in most counties to get local persons who because of their experience or training can pass on feeble-mindedness intelligently, this results in just that lack of uniformity of action on the part of local communities that makes any law necessary. Under the present condition X county may breed mental defectives at will, let them become the worst social problems at will, and then let them and their descendents pass on into neighboring county Y. Neither County Y nor the State can prevent it.²

To aid in securing uniformity, the state should have a voice in the hearings on feeble-mindedness. The following is a suggestion. Let the examining board in hearings on feeble-mindedness consist of the Probate Judge, one person sent by the State Board of Control, and one from the local community appointed by the judge and approved by the Board of Control, who will serve at all hearings during the term of his appointment. This third person is then more likely to be chosen with reference to qualifications, and being the same person for all hearings, will have an occasion and opportunity to improve in fitness as an examiner on such a board. This arrangement still leaves the main authority and majority vote with the local community.

3. *Separate Institution for Morons.*—The law commits feeble-minded to the guardianship of the Board of Control instead of to the institution, and the Board may then provide whatever form of guardianship the nature of the case and the circumstances require. This is an excellent provision, based on the recognition that feeble-minded are not all alike in nature and needs. But, like the law forbidding the feeble-minded to marry, further provisions required to vary this guardianship as called for in different types of cases are almost entirely lacking. In "3," "4," "5," and "6" I will suggest the further provisions that are needed and seem to me practical at the present time. Specializing in types of institutions and forms of guardianship does not necessarily involve greater direct costs for a given total number of inmates. From the standpoint of service given, the wisdom of increasing an institution beyond a certain size has often been questioned. When large numbers are involved, varying the kind of institution to fit different types or classes of inmates would probably *reduce* operating costs as well as improve the service.

²See Rogers, A. C. and Merrill, Maud A. "The Vale of Siddem," which describes just such a situation in a certain locality in Minnesota.

The aims of a special institution for morons should be as follows. It would admit morons of all ages and both sexes. The younger cases would consist of children without homes, or homes improper or inadequate for their rearing. The older cases should consist of those who, likewise have no proper home, and those who because of some mental or physical trait or their conduct require closer supervision than the other forms of guardianship can give. It would include the seriously delinquent, or so-called defective delinquent class, for whom separate cottages should be maintained.

The institution should be equipped with means of giving various kinds of industrial training, and "training on the job." Its aim should be to train every inmate for guardianship outside the institution. Certain selected adult cases should be remunerated for the work they do in the institution, and life for the inmates should by graded steps be made as nearly as possible like living and earning a living outside. Each case should be paroled to the next form of guardianship as soon as advisable.

Commitment of morons to such an institution would be much easier than to the present type that admits cases of all grades of mental deficiency. One of the chief objections now met in parents is that of associating their children with idiots and imbeciles. The courts also frequently fail to commit a moron as feeble-minded because it is felt that the type of institution and guardianship does not fit the case in question.

4. *Boarding Home Guardianship.*¹—The term does not fit what I have in mind very closely, but is used for want of a better one. It should be for adult morons only, either boys or girls alone. They should include both the cases paroled from the larger institutions and certain selected cases sent there directly when first committed as feeble-minded. Fifty should probably be about the maximum number in one cottage or home. The inmates should be regularly employed outside, and return to the home daily for meals and sleeping quarters. Their earnings should belong to them or their natural guardians after certain deductions for maintenance costs. The home should combine the functions of parental guardianship, vocational guidance, and the employment agency. The locations of these homes should be determined by the local demand and opportunity for the kind of employment that is best fitted to morons. They could be in either temporary, rented buildings, or permanent. A

¹For this type of guardianship see the following:
Bernstein, C. Rehabilitation of the Mentally Defective. Proc. Am. Assoc. for the Study of the Feeble-Minded, 1919. Pp. 126-155.

matron or supervisor should be in complete charge. The cases should be allowed as much freedom and independence as possible, with the view of training them to the point where they could be passed on to the next form of guardianship.

5. *Guardianship in Private Homes.*—Paroling inmates from institutions and placing them in private homes selected by State agents has been practiced by a few Eastern institutions for a number of years,² and was done in Minnesota on a small scale since 1917. It is adapted to moron adults who can manage their affairs with a certain minimum of supervision which they have not been receiving in their own homes, or who have no homes of their own. The nature of the home receiving them is as important as the traits of the case so paroled, for this home must accept some responsibility for the guardianship required. There is occasion to extend this form of guardianship to a much larger number than is now receiving it. It applies better to girls, employed in the home itself as housemaids, than it does to boys. Cases so managed should come chiefly from the boarding homes just described, but also direct from the institutions or be placed in this way at once at the time when committed to the guardianship of the Board of Control. The success of this form of guardianship depends on an adequate staff of trained field agents who must find suitable homes, and make frequent visits to them to get information on how the cases are getting along, and to advise in matters as they come up. This is what Minnesota has as yet failed almost entirely to provide for.

This plan of several forms of guardianship, including specialized institutions for different classes of mental defectives, is required if the real needs of these different classes are to be met. *The time when all feeble-minded were treated alike by commitment to one and the same kind of institution has passed.* The plan also provides for a gradual release or return to society of the highest grade cases, by letting them pass through several stages of decreasing restrictions in guardianship.

6. *Separate Institution for Epileptics.*—Sending feeble-minded and epileptics to the same institution is a remnant of a rather distant past when all the badly mentally abnormal, including the insane, were housed together in one asylum. No reason remains at present for the association of feeble-minded and epileptics, except the fact that many epileptics are mentally defective. Practically all epileptics now sent to institutions for

²Wallace, G. L. Parole of the Feeble-Minded. Proc. Am. Assoc. for the Study of the Feeble-Minded, 1918. Pp. 60-82.

feeble-minded are of moron grade or a little lower. If the State aims to really help the epileptic as such, it defeats that aim by not having a separate institution for epileptics, because epileptics with normal or about normal intelligence, of whom there are undoubtedly many more than of the mentally defective epileptics, evidently do not go to institutions that are primarily for feeble-minded. There are more than enough epileptics of normal intelligence in the state to call for a separate hospital and training school for epileptics. It would involve little or no extra costs to have the two separate. Mentally defective epileptics should be left with the feeble-minded where they are now.¹

7. *Means of Enforcing the Anti-Marriage Law.*—We have a law forbidding the feeble-minded to marry, and absolutely nothing to enforce it. Marriage license clerks must have the list of names of those who have been adjudged feeble-minded and means of identifying them before they can refuse to issue licenses to them. Means must be provided for keeping this information on record and up to date in the offices of license clerks. A heavy penalty should be attached to issuing a license to anyone on this list.

But even with these necessary provisions, the law would be of very little value as long as the list of cases adjudged feeble-minded by the courts is limited to what we have at present. It would affect only a few hundred individuals, leaving the many thousands to marry and transmit their defects to the next generation. Without the continuative census of mental defectives suggested above we would still be left in about the same situation as now.

¹I have discussed the need of such an institution for epileptics in the following: The Epileptics. What should be the attitude of the State and Community towards them? Quarterly Representing the Minnesota Educational, Philanthropic, Correctional and Penal Institutions under the State Board of Control. May, 1918. Pp. 150-160.

X. SELECTED READING REFERENCES

THERE are several thousand books and articles published on mental deficiency. A great many people in different professions and walks of life have written about it, because the subject itself is many sided and touches life interests at many points. Our actual knowledge about mental deficiency, however, is very much less than the quantity of literature might lead one to suppose. There is much casual observation, opinion and generalization, and but little exact science. This is often a considerable handicap in our practical dealings with mental defectives. One can find authority for almost anything one wants to believe. The following references are selected to supplement the present brief outline. A few more are given in foot-notes to indicate the sources for some particular statements. References to quite technical articles have been omitted entirely. The references below are grouped according to topic as much as possible, and under each topic are arranged roughly in order of importance when read in connection with this pamphlet.

EUGENIC ASPECTS

Guyer, M. F. *Being Well-Born. An Introduction to Eugenics.* Pp. 1-374. The Bobbs-Merrill Co., 1924.

Has chapters on: Heredity; the bearers of the heritage; Mendelism; Mendelism in man; are modifications acquired directly by the body inherited?; pre-natal influences; responsibility for conduct; mental and nervous defects; crime and delinquency; race betterment through heredity.

A quite readable and clear discussion. A very good book.

Holms, S. J. *The Trend of the Race. A study of Present Tendencies in the Biological Development of Civilized Mankind.* Pp. 1-396. Harcourt, Brace & Co., 1921.

Discusses such factors as heredity, mental defect, disease, birth-rate, natural selection, and industrial development. Book should be read to get a good perspective of the eugenic phase of mental deficiency.

PHYSICAL AND MEDICAL ASPECTS

Tredgold, A. F. *Mental Deficiency.* Third Edition. Bailliere, Tindall and Cox (London), 1920.

A general treatise covering nearly all phases of the subject, stressing the medical and physical. Read especially chapters on Causation, Pathology, and Clinical varieties.

PSYCHOLOGICAL

Woodrow, H. *Brightness and Dullness in Children.* Pp. 1-322. J. B. Lippincott Company, 1919.

Selected Reading References

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Chapter headings are: Measurement of intelligence; brightness and dullness; brains; physical defects; anatomical age; pedagogical age; simple mental processes; association, memory and attention; complex mental processes; mental organization; heredity; the organization of education; educational methods.

Hollingworth, Leta S. *The Psychology of Subnormal Children.* McMillan Co., 1920.

Chapters on: Individual differences; scientific study of mental defectives; definition of mental deficiency; identification; are defectives a separate species?; arrested development; are the feeble-minded equally feeble in all respects?; physical traits; instincts and emotions; how do the mentally defective learn?; can mentally deficient be made normal by any system of education?; causes and pervention; secondary causes; nervous and mental disorders which may complicate mental deficiency; special classes and special schools.

Binet, A., and Simon, Th. *The Intelligence of the Feeble-Minded.* (Trans. by Eliz. S. Kite.) Publications of the Training School at Vineland, New Jersey. No. 12, 1916.

This is a collection of articles that appeared in *L'Année Psychologique* in 1908 and 1909. Part I of 158 pages deals with different aspects of intelligence in the feeble-minded. Part II, with fifty pages, is on language of the feeble-minded, and Part III with thirty pages, is on feeble-mindedness and dementia.

Goddard, H. H. *Psychology of the Normal and Subnormal.* Pp. 1-349. Dodd, Mead & Co., 1919.

Largely an attempt to explain the traits of mental deficiency in terms of brain structure. See especially for comparison between brain structure of normals and mental defectives.

Kuhlmann, F. *The results of Repeated Mental Re-examinations of 639 Feeble-Minded over a Period of Ten Years.* *Journ. Applied Psychology*, Sept. 1921. Pp. 195-224.

Gives results showing the general tendency of the intelligence quotient to decrease a little with age in mental defectives.

DIAGNOSIS AND CLASSIFICATION

Kuhlmann, F. *A Handbook of Mental Tests. A further Revision and Extension of the Binet-Simon Scale.* Warwick & York, 1922. Pp. 1-208.

Terman, L. M. *The Measurement of Intelligence. An Explanation of and a Complete Guide for the Use of the Stanford Revision and Extension of the Binet-Simon Intelligence Scale.* Houghton Mifflin Co., 1916. Pp. 1-362.

Fernald, Walter E. *Standardized Fields of Inquiry for Clinical Studies of Borderline Defectives.* *Mental Hygiene*, April, 1917. Pp. 1-25.

Gives the old clinical method of diagnosis at its best.

Doll, E. A. *Clinical Studies in Feeble-Mindedness.* Pp. 1-232. Richard G. Badger, 1917.

Gives an excellent discussion in the first two chapters on: criteria and definitions; diagnostic methods and values. The remaining chapters are taken up with illustrative cases.

Anderson, Rose G. *Methods and Results of Mental Surveys.* *Journ. Applied Psychology*, March, 1922. Pp. 1-28.

Compares the old methods of surveys on mental deficiency with the new mental test methods, and reviews results.

Porteus, S. D. A Study of Personality of Defectives with a Social Rating Scale. Publ. of Vineland, New Jersey Training School, No. 23, Dec., 1920. Pp. 1-24.
Gives a rating scale to rate character traits of mental defectives.

Pitner, R. Intelligence Testing. Methods and Results. Henry Holt & Co., 1923. Pp. 1-406.

Gives a historical summary of the development of mental tests, describes a number of test scales, and gives results of their application in various fields. A comprehensive treatment of the subject, and a quite readable book.

TRAINING

Anderson, Meta L. Education of Defectives in the Public Schools. World Book Co., 1917. Pp. 1-104.

Contains many practical suggestions. All special class teachers should read it.

Goddard, H. H. School Training of Defective Children. Pp. 1-97. World Book Co., 1915.

Chiefly a report on the "ungraded classes" in New York City, rewritten to appeal to wider interests. See for a discussion of the more general problems of the special class for subnormals.

The Boston Way. By special class Teachers of Boston. Pp 1-142. The Rumford Press, 1921.

Gives detailed plans and programs for special class teaching, arranged under the following headings: Sense training; object and information lessons; motor training; physical training; games; folk dancing; music; reading; spelling; language; manners and social reactions; penmanship; arithmetic; geography; history; hygiene; drawing; modeling; domestic science; gardens and farm work; seat work; paper work; cardboard construction; weaving; kindergarten bead work; chair covering; reed work; raffia work; leather work; woodwork; cobbling; brush making; sewing; millinery; knitting; crocheting; printing program; bibliography.

Gesell, A. Exceptional Children and Public School Policy, Including a Mental Survey of the New Haven Elementary Schools. Pp. 1-66. Yale University Press, 1921.

Discusses mental hygiene and the public schools; subnormal mentality; superior and atypical mentality; school provisions for mentally deficient children; exceptional school children and State policy.

Merrill, Maud A. The ability of the Special Class Children in the "Three R's." Pedagogical Seminary, March, 1918. Pp. 88-96.

Compares school abilities of feeble-minded at given mental ages with abilities of normals.

Mitchell, David. Schools and Classes for Exceptional Children. Cleveland Education Survey. Pp. 1-122. Cleveland Survey Committee of the Cleveland Foundation, 1916.

Chapters on: Provision for exceptional children in Cleveland; why we have special classes; the socially competent; the socially incompetent; selection of feeble-minded children; what should be done for the feeble-minded; summary and recommendations.

Anderson, V. V. Education of Mental Defectives in State and Private Institutions and in Special Classes in Public Schools in the United States. Mental Hygiene, Jan., 1921. Pp. 85-122.

Gives results of a statistical inquiry.

CONDUCT

Rogers, A. C., and Merrill, Maud A. Dwellers in the Vale of Siddem. Pp. 1-80. Richard G. Badger, 1919.

A popular write-up of some mentally defective and delinquent families found by field-workers in a certain area in Minnesota. Gives a very vivid picture of the mentally defective family at its worst.

Williams, J. H. The Intelligence of the Delinquent Boy. Journ. of Delinquency, Monogr. No. 1. Whittier State School, Whittier, Calif., Jan., 1919. Pp. 1-198.

Gives detailed report of results of mental examinations of all the inmates of the Whittier reformatory, the relation of delinquency to grade of intelligence, to race, to heredity, and to home and neighborhood conditions.

Fernald, Mabel R., Hayes, Mary H., and Dawley, Almena. A study of Delinquent Women in New York State. Publication of the Bureau of Social Hygiene. Pp. 1-542. The Century Co., 1920.

This book reports the results of six years of study by the staff of the Laboratory of Social Hygiene at the State Reformatory for Women at Bedford Hills. The first six chapters deal with methods of investigation and the material. Chapters XIII to XV deal with the mental capacity of delinquents.

Miner, J. B. Deficiency and Delinquency. An Interpretation of Mental Testing. Pp. 1-355. Warwick and York, 1918.

Has chapters on: The functions of a scale in diagnosis; the percentage definition of intellectual deficiency; what percentage is feeble-minded; adapting the percentage definition to the Binet scale; delinquents testing deficient; checking the Binet diagnosis by other methods; school retardation among delinquents; comparison of the school test with the Binet test; bad school adjustment as a cause of delinquency; deficiency as a cause of delinquency; theory of measurement of mental development; quantitative definitions of the borderline.

A thorough and critical analysis of the problems discussed. See for relationship between mental deficiency and delinquency.

Burmeister, Marie E. Delinquents. School print of State Training School at Red Wing, Minnesota. Pp. 1-20.

Gives results of mental test survey of the school, and data on home conditions of inmates.

Wooley, Helen T. & Hart, Hornell. Feeble-Minded Ex-School Children. Studies from the Helen S. Trounstone Foundation, Cincinnati, April, 1921. Pp. 237-264.

Reports on the occupations and success of feeble-minded after leaving schools. An excellent study.

MISCELLANEOUS

Kuhlmann, F. A State Census of Mental Defectives. Journ. of Delinquency, Sept.-Nov., 1923, Pp. 247-262.

Describes the needs of a continuative name and address census, the method of getting it, costs, and uses.

Hastings, G. A. Registration of the Feeble-Minded. Special print from Committee on Mental Hygiene, State Charities Aid Association, New York City. Pp. 1-15.

Makes a plea for the registration of all existing feeble-minded.

Fernald, Walter E. The Growth of Provision for the Feeble-Minded in the United States. *Mental Hygiene*, Jan., 1917. Pp. 34-59.
An excellent historical summary.

Proceedings of the American Association for the Study of the Feeble-Minded. B. W. Baker, Editor. New Hampshire School for Feeble-Minded, Laconia, N. H. From 200 to 350 pages per annual volume.

This contains the papers and discussions on the programs of the annual meetings of this association. They cover all phases of the subject. See these volumes especially for several papers on extra-institutional care and guardianship of feeble-minded.