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CENSUS OF HANDICAPPED CHILDREN

Department of Public Instruction
Research Bulletin No. 4

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RESEARCH. HANDICAPPED CHILDREN

CHAPTER 114, ACTS 43 G. A.

AN ACT to direct the superintendent of public instruction to make research study of certain features of the public school system, and as to the number of physically and mentally handicapped children of school age in the state, and to make an appropriation to defray the expense of such survey.

Be it enacted by the General Assembly of the State of Iowa:

SECTION 1. That the superintendent of public instruction be authorized to employ a statistician and such clerical help as may be needed to make a fact-finding survey as hereinafter provided.

The said superintendent shall also appoint one member from the school's committee of the senate and one member from the school's committee of the house, to act in the advisory capacity to said superintendent, and who shall be paid their actual and necessary expense in attending all meetings.

SEC. 2. Said survey shall be a research study embracing the administration, supervision, and the instruction of the public school system and the costs thereof with data to show the financial ability of the various districts to meet such costs and to secure data as to the types and number of each type of handicapped children of school age in the state.

SEC. 3. Said superintendent of public instruction shall make a report of such findings.

SEC. 4. There is hereby appropriated, out of any funds in the state treasury, not otherwise appropriated, the sum of eight thousand dollars, to defray expenses incurred under the provisions of the act.

ACKNOWLEDGMENT

Whatever degree of success this project has attained has been made possible through the sympathetic cooperation of a number of organizations in the state of Iowa. The universal interest in it has been such that, without exception, every group to which an appeal was made responded willingly and generously. Without them the value of this census would have been much depreciated.

Assistance in organizing for the survey and giving publicity to its plans and methods came from the Iowa Tuberculosis Association, Iowa State Medical Society, Iowa Congress of Parents and Teachers, Iowa Federation of Women's Clubs, Iowa State Teachers Association, Iowa Farm Bureau Federation, Farmers' Union, State Department of Health, State Board of Education, Commission for the Blind, State Board for Vocational Education, Rotary, Lions, Kiwanis and other service clubs, and many similar organizations. The actual reporting of handicapped children was done by the teachers and superintendents of schools. They were aided by school and public health nurses and physicians whose training and observation proved of value. Members of boards of education, local officers of parent-teacher associations, farm organizations, women's clubs and other community groups, helped by checking over the lists assembled. The program in each county was in direct charge of the county superintendent of schools, who assumed responsibility for distributing the materials, gathering and rechecking the replies, and forwarding the data to Des Moines.

For the special survey made in Washington county, Mrs. Winnie Palmer, county superintendent of schools, assumed responsibility. She was actively assisted by Dr. C. A. Stewart, Miss Leona Allen, and Miss Alice Owen, of the Washington County Health Unit, physicians and dentists, parent-teacher associations, women's clubs, the county health committee and many others.

The limited funds available for this survey eliminated the possibility of basing the entire report upon a complete medical examination of every child in the state. We acknowledge our appreciation of the cooperation of all who have participated in making the census complete and accurate. As the state of Iowa anticipates

a program of educating these neglected children in connection with the public schools, we hope that those who have so far aided us will derive satisfaction from the realization that they have paved the way for constructive action, and will lend their support to a set-up which will bring equality of opportunity to those for whom provision is not yet made.

We express our appreciation also to Mr. R. C. Williams, director of the research division, for his painstaking and valuable services in connection with this survey. Since it is believed to be one of the first of its kind, he has pioneered in a field that must not be overlooked in any state program of equalizing educational opportunity.

AGNES SAMUELSON

Superintendent of Public Instruction

CENSUS OF HANDICAPPED CHILDREN

THE PROBLEM

Compulsory school attendance and the ideal of universal education have been commonly accepted. The increased attendance of pupils at school, economy in cost of operation and failure to recognize the significance of differences in the capacity of children to profit by school attendance, have developed a program of education based upon the group. The needs of the child whose physical or mental characteristics vary from that of the average child have been subordinated and in many schools have been lost. Teachers have been trained from the viewpoint of subject matter units rather than pupil characteristics. School furniture and instructional materials have become standardized for normal boys and girls rather than individualized for the exceptional.

In this movement many children have been overlooked. School corporations containing large numbers of abnormal children have recognized the problem and are now making some provisions for them. Where the population is sparse and school facilities meagre, little or nothing has been done. In every instance where special facilities have been made available, the cost has obviously been much greater than that of regular instruction.

There are some who feel that this problem is so vast that no practical solution can be provided. Before the possibilities of solution can be determined, several phases must be studied. How extensive is the problem in our state? How many children are there who cannot profit by attendance upon regular classroom instruction and need special care? What types of handicaps are prevalent and to what extent? In what proportion are these underprivileged children found in communities of varying size? What per cent are now attending school? What provisions must be made to adequately care for them? What would be the cost of an educational program planned for these unfortunates? These and many similar angles of the matter need careful consideration before the construction of any remedial program can be inaugurated. The 43rd General Assembly took the first step in contemplating this problem by making possible a survey "to secure data as to

the types and number of each type of handicapped children of school age in the state," under the direction of the superintendent of public instruction. The findings of this survey are herewith submitted.

THE ATTACK

To make such a survey it would be necessary to give every person in Iowa 5 to 21 years of age a complete physical and mental examination. Funds provided for this project and other conditions make such a plan impossible. Consequently it has been necessary to use such facilities as were available. It was decided to use the local school district as the basis for securing data and begin with such resources as they provided.

A number of difficulties have limited the accuracy and completeness of the study. Very few school systems provide the services of physicians. At present but 12 of the 99 counties of Iowa have nurses employed on a county-wide basis, some of which do not work in conjunction with the county superintendent. Thirty-eight counties have no public health nurses under any auspices. School teachers, and especially those in rural communities have neither the training nor experience to detect various types of handicaps. The indifference of a number of school administrators to the importance of this problem has lowered both the percentage of returns received and the thoroughness of reports from their own districts. Varying interpretations of definitions submitted are largely unavoidable. Some localities made an effort to have their reports rechecked before forwarding them, while many gave the matter little thought. These and other conditions would naturally produce much variation in reports from counties as well as individual school systems.

For some years past data similar to that involved in this census were a part of the annual reports made by county superintendents to the state department of public instruction. These have been very unsatisfactory and incomplete and the resultant information has not been advantageously used. For the year ending June 30, 1929, the total number of handicapped children reported to the state department was 1,333. The present survey has been made a unit of the annual reports of the past year.

CLASSIFICATION OF HANDICAPS

To secure uniformity of practice in locating and listing those who are handicapped, a manual was prepared. This manual included directions on how to make up the report, suggestions on securing the cooperation of local groups known to be interested in the project, including the physicians, and a group of definitions which endeavored to set up a workable basis for determining the meaning of each classification of handicaps and how to recognize them.

Preliminary study suggested a number of classifications to be followed in listing and grouping those found eligible for this census. A number of defects whose frequency was thought to be insignificant were not included. The grouping decided upon included blind, partially blind, deaf, partially deaf, speech defects, mentally deficient, crippled, cardiac, and tuberculous. As returns came in, a separate listing of epileptics seemed desirable, and a number of others were grouped together under "miscellaneous."

It is evident that the criteria to be used in recognizing defects must consider the ability of those who are to make the observations. Since school teachers, principals and superintendents were to compile the major part of this census, their need for statements that would lend themselves to uniformity of interpretation and at the same time be reasonably accurate, was apparent. After conference with a number of physicians who are specialists in the fields covered by this survey, and those who were to participate in the project, the following series of statements was prepared:

Blind—One who is unable to see

Partially blind—One who is not totally blind, but whose sight is so impaired or defective that he cannot, with the aid of glasses, read ordinary print at a distance of 14 inches, or read from the blackboard while sitting in regularly placed seats

Deaf—One who is unable to hear

Partially deaf—One who is not totally deaf, but whose hearing is so defective that he cannot hear ordinary conversation without the aid of some amplifying device or at an unusually short distance to the source of sound

Speech defect—One whose speech is unintelligible to a stranger

Tuberculous—One who has disease of any part of the body due to tuberculosis germs

Cardiac—One whose heart is so defective that he is unable to attend and engage in the regular work of the school classroom

Mentally deficient—(a) One whose mental ability is such as to make it impossible for him to profit by regular group classroom instruction, or (b) One whose intelligence quotient as determined by a standardized intelligence test is 75 or lower

Crippled—One whose body is so crippled as to limit his normal capacity for education or self-support

THE PROCEDURE

There are two possible procedures for arriving at the number of handicapped children in Iowa. One method would be to make a statewide canvass of every school district. The other method would involve the selection of areas such as are representative of the state as a whole, make an intensive study of these selected areas and then, on the basis of returns from such places, determine the probable number for the state as a whole. The first of these two plans is the one to which previous reference has been made. Four counties, three of which employed county-wide public health nurses, were chosen as the territory for intensive surveys, and one of these, Washington county, may be used as the basis for estimating the number of handicapped children in Iowa.

After determining upon the local school district as the unit for making the survey, the county superintendents of schools were designated as agencies for gathering and assembling data for the schools under their administration, since they are legally the avenue of contact between the department of public instruction and the schools. To these people was sent information concerning the procedure to be followed.

A manual of directions and a report sheet, a facsimile of which is shown later in this bulletin, were sent by the county superintendent to each school under his jurisdiction. Reports were returned to the county seat where they were assembled and forwarded to the department of public instruction. Upon receipt at Des Moines they were checked for errors and omissions and, when necessary, additional data to make the returns from each county complete were requested and, in most cases, submitted. With reports from local districts made on separate sheets, it is possible to classify the information in a number of ways between rural and urban communities, a matter of vital significance to any remedial program. The actual tabulation of the data submitted was done by the Mathematics Statistical Service of Iowa State College.

NUMBER REPORTED

The total number of different individuals actually reported as being handicapped is 11,083. Grouped according to the number of defects per individual, this number is distributed as follows:

TABLE I

	Number Reported	% of Total
Individuals having one handicap.....	9,905	89.4
Individuals having two handicaps.....	1,129	10.2
Individuals having three handicaps.....	42	.4
Individuals having more than three handicaps..	7	
Total	11,083	100.0

SCHOOL RESIDENCE

The reports have been classified to show the type of school district from which each individual was reported. In this classification, "rural" refers to rural independent districts and school townships, practically all of which maintain a one-teacher school; "town and village" refers to districts including incorporated towns under 2,000 population, villages and consolidated districts, which usually maintain a twelve-year public school; "second class cities" are districts including a city with a population of 2,000 to 15,000; "first class cities" include cities of 15,000 population and over.

Grouped according to this classification, the data appear as below:

TABLE II

Type of District	Number of Individuals Reported	% of Total
Rural Districts	4,408	39.8
Towns, Villages and Consolidated.....	2,428	21.9
Second Class Cities.....	1,703	15.3
First Class Cities.....	2,544	23.0
Total	11,083	100.0

These figures indicate that about forty per cent of all those reported reside in the open country where a one-teacher rural school is provided. Including towns and villages with a population under 2,000 with the rural districts, more than sixty per cent are found in territory which is usually interpreted as rural.

EDUCATIONAL STATUS

An effort was made to ascertain the progress made in school by those reported as handicapped. The data as collected are:

TABLE III

	Boys	Girls	Total
In school, or graduated.....	4,851	3,093	7,944
In institutions	72	56	128
Not in school.....	1,773	1,238	3,011
Total	6,696	4,387	11,083

The facts from which the above table is made include 290 children who are in school and receiving instruction in ungraded rooms. The weakness of the method followed is illustrated here by the fact that but 128 children are reported as in institutions, whereas the population of the state schools for blind, deaf, and feeble-minded children is over 2,000. This would naturally be expected, as it is difficult to ascertain what children from a community are being cared for in state institutions.

HANDICAPS REPORTED

TABLE IV

Handicap	Number	% of Total	No. with Single Handicap	% of Total
Blind	119	.966	68	.686
Partially blind	1,072	8.704	897	9.056
Deaf	306	2.484	217	2.190
Partially deaf	760	6.170	618	6.239
Speech defect	2,420	19.649	1,725	17.415
Mentally deficient	5,172	41.994	4,315	43.563
Crippled	1,560	12.666	1,252	12.640
Cardiac	417	3.385	371	3.745
Tuberculous	183	1.485	157	1.585
Epileptic	77	.625	62	.625
Miscellaneous	230	1.867	223	2.251
Total	12,316	99.995	9,905	99.995

It is apparent that an individual may have more than one handicap. The above table shows the number of each type of handicap which has been reported and also the number of individuals with but a single handicap, grouped by types. A total of 12,316 handicaps were listed, of which number 2,411 represent handicaps found on individuals with more than one defect each.

This table also indicates that the greatest number are found to be mentally deficient. It should be understood that the term mentally deficient does not indicate those who are feeble-minded. It will be remembered that the purpose of this survey is to reveal the number of children needing special types of instruction, and the definition of this term as given on page seven, and as followed in this study has been built upon that criterion. Educators who have made special study and investigation of these problems will not be surprised at this number. School work and school progress are to a great degree limited by mental capacity.

There are several factors which might affect the number of each type of handicap reported. School people are undoubtedly more conscious of defects among those in school than those not in school. Some defects are more apparent than others. Many cannot be detected without a careful physical examination. It is difficult to prescribe a statement of what shall be included under each type which will be uniformly interpreted by so large a number of assistants. In some localities, those now being cared for by institutions were reported, while others omitted them.

Conditions not due to native characteristics may retard a child in school so that an incompetent observer would consider him as not having normal mental powers. Reports based upon mental tests should show different results than those made up from personal opinion. Furthermore, the reliability of a single mental test, particularly of the group type, may be called into question in connection with this phase of the survey. The large number of mentally deficient reported and also estimated may to some seem out of proportion to the other classifications. And yet when a total of 714,000 people, 5 to 21 years of age, are included, it is not unreasonable to believe that out of that group the number estimated as mentally deficient are in need of special types of training.

Regardless of these and other elements this report is submitted as a statement of actual information received, and a conservative estimate based upon a careful, intensive study in a favorable locality.

REPORT ON SPECIAL SURVEY IN WASHINGTON COUNTY

As has been previously mentioned, a special survey was possible in Washington county. The nature of the county and its population, together with the local resources available, made this a desirable locality from which to derive accurate data. Furthermore, it presents a splendid illustration of the possibilities of such a survey when certain conditions obtain. It is the first county of the state to establish a county health unit and the staff of this organization very willingly offered to cooperate in making a careful canvass of the county. Fortunately, the health physician has been a resident of the county for a number of years and has a large acquaintance throughout the territory. To insure a complete survey a special committee of the Parent-Teacher Associations of the county met

and checked the reports. They were again gone over by the county health committee. Each of these committees added a number of children to the records until it is believed that the final report is a reasonably accurate picture of the situation in this county.

Competent observers who are familiar with the state of Iowa from several points of view agree that this county is in some ways a typical Iowa county. It is predominantly rural, with 57% of its population living outside cities and towns, while for the state as a whole 43% live in similar localities, based on the state census for 1925. It has no large cities, but one city, the county seat, having a population over 2,000. The unofficial figures of the 1930 census give the population of the county as 19,815, or less than the average sized county in Iowa. The percentage of tenantry in this county is lower than for the state as a whole, and rural conditions are considered such as to attract and retain a high type of people. There is no evidence to indicate that conditions here are not up to the standard for the state as a whole and it is believed that any estimate for the state based upon conditions found in Washington county would be very conservative.

The data from school districts of this county originated with the school teachers and superintendents. Reports submitted by them to the county superintendent were turned over to the staff of the county health unit. The physicians and nurses who, in addition to their professional training, have had special training and experience in public health work, verified or corrected the reports from their own records or by individual examinations, which in a large number of cases involved home visits. The Otis Self-Administering Intelligence Test was given all the pupils of the rural school above the third grade and in all but two of the graded town schools.

Observers in this county have listed 313 individuals 5 to 21 years of age as being defective either physically or mentally, according to the criteria established for this survey, with a total of 345 handicaps reported. The handicaps are distributed as follows:

TABLE V

	Number
Blind	2
Partially blind	34
Deaf	4
Partially deaf	16
Speech defect	56
Mentally deficient	177
Crippled	40
Cardiac	7
Tuberculous	6
Epileptic	1
Miscellaneous	2
 Total	 345

ESTIMATED NUMBER IN THE STATE

To many an estimate for the state based upon an intensive survey of a certain selected area, will appear to be of greater value than data actually submitted, in view of the method necessarily followed by and large over the state, and the great variations in county reports submitted. Some counties report over ten times as many defectives as other counties of similar size and school population or smaller. In some counties the cooperation of local groups was much easier obtained than in others. These and other evident variables indicate that a conservative estimate will perhaps be a more accurate picture of conditions than the total number actually listed. The estimated number of physically and mentally handicapped people in Iowa of school age (5 to 21 years) as defined for this study is 40,270. It indicates that there are 56.4 of each one thousand people of the state 5 to 21 years of age who are physically or mentally handicapped and in need of special educational considerations. Considering the entire population of the state, unofficially reported as 2,468,747, the estimated ratio is 15.8 per one thousand of the total state population.

This estimate for the state is based on the ratio of the number listed in Washington county to the population of that county 5 to 21 years old. In column headed "Estimate A," the total is distributed among the various classifications in the same ratio as the handicaps actually reported were distributed among these same groups. Under "Estimate B" the estimated total is divided among types of handicaps in the same ratio as the number of each type reported from Washington county bears to the total number listed from that county.

TABLE VI

	Estimate A	Estimate B
Blind	390	233
Partially blind	3,505	3,969
Deaf	1,000	467
Partially deaf	2,485	1,867
Speech defect	7,913	6,536
Mentally deficient	16,910	20,660
Crippled	5,101	4,669
Cardiac	1,361	817
Tuberculous	598	700
Epileptic	255	119
Miscellaneous	752	233
Total	40,270	40,270

This table should be interpreted as follows: if the ratio of the number of blind people 5 to 21 years of age in Washington county to the total population of that county of the same ages, is the same as that for the state as a whole, there are 233 blind people of these ages in Iowa; if the ratio of the number of blind people actually reported in this census to the total number of handicaps reported, is true for the total state population 5 to 21 years of age, there are 390 blind persons of these ages in Iowa.

STATE OF IOWA
DEPARTMENT OF PUBLIC INSTRUCTION
CENSUS OF HANDICAPPED CHILDREN

County..... Name of School District.....
Date of Report..... Person Making Report.....

Name	Boy or Girl	Age	Grade if in School	Name of Parent or Guardian	Postoffice Address	Physical or Mental Exam.	Handicaps
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							

Was this report checked with the school census?.....
With physicians?.....
What organizations of your community outside the school assisted you?
.....
(Return this blank to your county superintendent)

