# DEPARTMENT OF COMMERCE bureau of the census 

SAM. L. ROGERS, DIRECTOR

DEAF-MUTES
IN THE UNITED STATES

ANALYSIS OF THE CENSUS OF 1910
with

SUMMARY OF STATE LAWS RELATIVE TO THE DEAF AS OF JANUARY I, I918



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## LETTER OF TRANSMITTAL.

> DEPARTMENT OF COMMERCE,
> BUREAU OF THE CENSUS,
> Washington, D. C., March $16,1918$.

SIR:
I have the honor to transmit herewith a report on deaf-mutes in the United States in 1910. The material for this report was obtained in connection with the decennial census of 1910, at which a question was included on the general population schedule asking whether the person enumerated was deaf and dumb. After the completion of the population census, in order to obtain data on subjects which were of special interest and significance for a study of deaf-mutism, a supplementary schedule was mailed to each person reported as deaf and dumb, the questions on this schedule covering degree and cause of deafness, age when hearing was lost, existence of deafness among relatives, education, means of communication, and economic status. Certain of the basic data have already been published in a preliminary bulletin. The report contains also a summary of the laws in the several states relating to the education and care of the deaf, brought down to January $1,1918$.

This report was prepared in the Division of Revision and Results under the general direction of Dr. Joseph A. Hill, expert special agent. The analytical text is mainly the work of Reginald L. Brown, who also had immediate charge of the tabulation of the data. Dr. C. W. Richardson, of Washington, a former president of the American Otological Society, and Dr. E. A. Fay, of Gallaudet College, Washington, kindly consented to examine the proof of the report. The Bureau has reason to be gratified by their commendation of its work and at the same time is under obligations to them for some helpful criticisms and suggestions.

As was the case at the census of 1900, the returns have been utilized not only for statistical purposes but also for supplying, upon request, lists of the deaf and dumb enumerated in particular states or localities, including names, addresses, and other personal data, for the use of schools or other agencies interested in the deaf. In this way the bureau has, no doubt, been instrumental in extending the philanthropic work carried on by various public agencies in behalf of those afflicted with deafness.

Respectfully,
Sam. L. Rogers,
Director of the Census.
Hon. William C. Redfield, Secretary of Commerce.

## DEAF-MUTES IN THE UNITED STATES 1910

## DEAF-MUTES IN THE UNITED STATES

## INTRODUCTION.

This report summarizes the data relating to the deaf and dumb in the United States in 1910 obtained in connection with the Thirteenth Decennial Census of population. It consists mainly of an intensive study of the statistics for the 19,153 deaf-mutes who returned a special schedule of inquiry which was sent out to every person reported as deaf and dumb by the population enumerators; it also includes a summary of the laws of the various states relating to the deaf.

The first enumeration of the deaf and dumb, as well as of the blind, in the United States was made in connection with the census of 1830, and a similar enumeration has been required by law at each subsequent decennial census of population. When the census of 1900 was taken, however, the enumeration as eventually made covered all the deaf, regardless of their ability to speak, and not merely the deaf and dumb, and the report presenting the results of this census related to the deaf generally, so that the Federal statistics of the deaf and dumb lack the continuity possessed by those for the blind, which have been compiled for each census since this class of the population was first enumerated in 1830. Moreover, while, so far as has been possible to determine, the United States was the first country to make an official enumeration of the blind, this was not the case with respect to the deaf and dumb, as an official census of this class was taken in Prussia in 1825, or five yoars before the first enumeration in the United States. ${ }^{1}$

Prior to the census of 1880 the census of the deaf and dumb in the United States was merely an incidental feature of the census of population. The law providing for the Fifth Decennial Census (1830), under which the first enumeration was made, merely required that the population enumeration should "distinguish the number of those free white persons included in such enumeration, who are deaf and dumb, under the age of fourteen years; and those of the age of fourteen years and under twenty-five, and of the age of twenty-five years and upwards; * * * and * * * of those free coloured and other coloured persons * * * who are deaf and dumb, without regard to age $* * *$." The act providing for the census of 1840 contained a similar provision.

[^0]The law providing for the census of 1850 , under which those of 1860 and 1870 were also taken, contained no reference in the body of the act to an enumeration of the deaf and dumb, but the population schedules, which, with the other schedules used at that census, were appended to and made a part of the act, included a column in which, among other things, the fact that the person enumerated was deaf and dumb was to be noted whenever found to be the case.

The Tenth Census act (1880) required that the population schedule should contain "inquiries as to * * * the physical and mental health of each person enumerated whether active or disabled, * * * deaf, dumb, blind * * *;" and the Eleventh Census aot (1890) merely continued in force the provisions of the Tenth Census act in this respect, but gave the Secretary of the Interior full discretion over the form of the schedule. There was, however, a difference at the two censuses in the scope of the actual enumeration based on this section of the law. At the census of 1880 the population schedule required only that for those who were deaf and dumb this fact shouild be indicated by an entry in a column provided for that purpose, and the enumerators were also given a supplemental schedule on which they were to obtain for each deaf-mute enumerated certain special data not called for by the population schedules, ${ }^{2}$ receiving additional compensation for each name entered on these supplemental schedules. At the census of 1890 , on the other hand, it was decided to collect information with regard to all persons reported as being so deaf that they were unable to hear loud conversation, whether or not they were able to speak. A column was provided on the population schedule in which the existence of any physical or mental defect, with the nature of the defect, was to be indicated, the heading employed, "Whether defective in mind, sight, hearing, or speech * * *," making it plain that a literal interpretation was given to the law, and that all persons who were either deaf or dumb were to be reported, even if they were able respectively to speak or to hear. In addition, the enumerators were provided with a supplemental schedule which called for information relative to every deaf person enumerated, and not merely, as in 1880, for information concerning deaf-mutes. At both censuses the statistics compiled from the information obtained by means of the supplemental

[^1]schedule were e.nbodied in a special report covering also other defective classes. At the census of 1890 the deaf who could speak were, by means of the answers to an inquiry on the supplemental schedule, separated from those who could not, and the returns for the two classes were tabulated separately; the main statistical presentation, however, related to the latter class, designated in the report as the "deaf and dumb."

By the act providing for the Twelfth Census a radical change in the status of the enumeration of the deaf and dumb was brought about. Under previous census acts, as already stated, this enumeration was merely an adjunct of the general census of population; this act, however, placed "statistics relating to special classes, including the insane, feeble-minded, deaf, dumb, and blind" in a list of subjects which were not to be taken up until after the close of the decennial census period. Under this law the statistics were limited to inmates of institutions; but this limitation was removed, so far as related to the deaf, dumb, and blind, by an amendatory act approved February 1, 1900, which authorized the collection of statistics concerning all persons belonging to these classes, providing, however, that the inquiries in the population census should be confined to the name, age, sex, and post-office address of the person enumerated. To carry out these provisions the special column in which the existence of physical defects was to be noted was dropped from the population schedule, and the population enumerators were instead provided with blanks on which they were to enter the name, age, sex, and address of every deaf person, as well as of every blind person, enumerated by them. The deaf with defective speech were to be separately shown on this schedule, but the enumerators were specifically instructed not to return the dumb who were not deaf. Subsequently a special schedule asking for detailed information was sent out to every person reported on these lists, and the information thus obtained was tabulated and presented in a special report.

The various provisions in regard to the collection of statistics concerning special classes contained in the legislation relating to the Twelfth Census were incorporated in the law creating the permanent Census Office, which definitely established statistics of these classes among the subjects for which decennial investigations during the intercensal period were authorized. All specific mention of the deaf or the dumb was, however, eliminated by an amendment passed in 1906, which changed the language of the law so that it simply authorized the collection, decennially during the intercensal period, of statistics relating to the defective classes.

In the Thirteenth Census act provision was made for an enumeration of the defective, dependent, and delinquent classes in institutions, and whether intentionally or otherwise, the "deaf and dumb" were specifically mentioned among the classes covered by
this institutional enumeration. Since, however, a report of the name and address of every deaf and dumb person was likewise required and the provisions of this act were not understood to involve the repeal of the provision of the permanent census legislation authorizing the collection of statistics concerning all persons belonging to the defective classes, it was decided to make the investigation cover the total deaf and dumb population, and not merely the deaf and dumb in institutions.

In enumerating the deaf and dumb population in 1910, instead of employing separate blanks, as at the preceding census, a return was made to the method in use prior to 1900 of including on the population schedule a special column in which an appropriate entry was to be made for every deaf and dumb person enumerated. No attempt was made to secure a return of all deaf persons, as the phraseology of the law, which merely required the return on the population schedule of the "name and address of each blind or deaf and dumb person," appeared to preclude such an effort. A special schedule, similar to that employed in 1900, asking for detailed information in addition to that called for by the general population schedule, was also sent out to every person reported as deaf and dumb by the population enumerators. For reasons which will be discussed later only a little more than two-fifths of the deaf and dumb population enumerated returned these schedules satisfactorily filled out; the information contained on the schedules returned has, however, been tabulated, the presentation of the results of this tabulation constituting, as already noted, the greater part of this report.

## SCOPE OF THE REPORT.

As previously stated, the enumeration of the deaf and dumb population of the United States in 1910 was made through the medium of a separate column on the general population schedule. The instructions given to the population enumerators were as follows:

Column 32. Whether deaf and dumb.-If a person is both deaf and dumb, write "DD." For all other persons leave the column blank. Persons who are deaf but not dumb, or persons who are dumb but not deaf, are not to be reported.

Under these instructions a total of 44,519 persons were reported by the enumerators as being deaf and dumb; in addition, 189 persons not entered as deaf and dumb on the population schedules were subsequently reported to the office, either by themselves or by other interested persons, as suffering from the defects stated, making the total number reported as deaf and dumb 44,708 . To each of these persons, as already stated, a special schedule of inquiry was sent by mail, asking for data on a number of subjects which it was felt would be of interest in connection with a statistical study regarding deaf-mutism. Of the total number of persons reported as deaf and dumb, however, only 22,491 , representing 50.3 per cent, or about one-half,
replied to the request to fill out the special schedule. In 3,583 cases the schedule was returned by the postmaster unclaimed, while in the remaining 18,634 cases nothing whatever was heard from it after it was sent out. The reason for the comparatively small proportion of replies lies partly in causes inherent in the correspondence method of obtaining statistics, partly in the methods adopted for securing the addresses of the deaf and dumb enumerated, and partly in the administrative necessities of the Census Bureau.

In the first place, in any investigation relative to any of the defective classes in which the data are secured wholly or in large part by correspondence, no matter how great an effort is made, there will always be a considerable proportion of persons for whom it is impossible to obtain schedules; at the census of the deaf in 1900, for example, "several thousands of circular letters of inquiry, sent out to the addresses of persons reported as deaf by the enumerators * * *, failed to bring any reply, in spite of repeated requests for information." ${ }^{1}$ In the greater number of cases the failure to reply is probably due to the fact that those to whom the schedules are sent, or the members of their families, are too ignorant or illiterate to comprehend or answer the inquiries. In other cases negligence may be responsible, or the schedule may have been mislaid, to be discovered perhaps years later, when the person to whom it was sent, if particularly conscientious, may fill it out and send it in; thus schedules have been tabulated in the present report which were received after the lapse of nearly four years from the time when they were sent out, and a schedule for the census of the blind in 1900 was received by the Bureau of the Census as late as March, 1916. In still other instances the failure to return the schedule is probably due to indifference, to sensitiveness, or to resentment at what is regarded as officious prying into personal affairs. There will also be a certain number of cases where by reason of the death of the person enumerated, or removal to another locality since the population enumeration, it will prove impossible to obtain a schedule.

Another factor contributing to reduce the number of schedules returned was the method employed for determining the addresses of the persons reported by the enumerators as deaf and dumb. At the census of 1900, which was the first census at which the attempt was made to secure information relating to the blind or the deaf by correspondence directly with the person suffering from the given defect, the population enumerators were, as already stated, required to report upon a separate schedule the name and address of every blind or deaf person found by them. At the census of 1910, however, no special schedule for this purpose was provided, and while the Thirteenth Census act required the address of each blind or deaf and dumb person to be returned on the population schedule, the entries on that schedule showing the minor civil divisions (i.e.,

[^2]township, town, city, village, etc.), and the street and house number were regarded as sufficiently complying with this requirement. In cases where the person enumerated lived in an incorporated place, these entries did of course in most instances give an accurate indication of his post-office address; but if he lived in a rural district it was necessary to refer to an atlas and to the Postal Guide to determine to what post office the schedule probably should be mailed. The fact that only about 3,600 schedules, representing 8 per cent of the total number sent out, were returned unclaimed would seem to show that the methods employed were on the whole fairly successful in obtaining the correct address of the person enumerated, especially as some of the schedules returned unclaimed presumably failed of delivery because the persons to whom they were sent had moved to another locality without leaving any address or had died; but it must be borne in mind that there were probably numerous instances where a schedule was sent to a wrong post office and by reason of official oversight was never returned, which would be particularly likely to occur in the rural districts. It is manifest, however, that the method of obtaining the address must have been in part responsible for the small percentage of schedules returned.
Perhaps even more important in bringing about the low percentage of replies to the request to fill out the special schedule were the administrative necessities of the Census Bureau. At the census of 1900 , as has already been shown, "repeated requests for information" were made of those who failed to reply to the circular letter of inquiry. It was originally the intention to follow up in like manner the failures to reply to the first request to fill out the special schedule for the census of 1910. At the time when this work should have been done, however, a reduction in the clerical force of the Bureau of the Census, consequent upon a shortage in the appropriation, made necessary a practical suspension of the work upon the inquiry regarding the deaf and dumb in order to concentrate upon the main work of the decennial census, and when a resumption of the work in connection with the report on the deaf and dumb became feasible, so long a time had elapsed since the schedules were sent out that any further effort to secure schedules from those who failed to respond to the first request seemed inadvisable. It is not improbable that if the work could have been carried on along the lines originally planned the proportion of cases in which schedules failed to be received would have been considerably less.
In view of the large number of persons reported by the enumerators as deaf and dumb who failed to return the special schedule, it was at first planned to issue the report on this class in two parts, one comprising a tabulation of the principal data on the population schedule (that is, sex, race, nativity, age, marital condition, and occupation) for the total population reported as deaf and dumb, and the other a tabulation of the information obtained on the special schedule.

A careful study of the returns, however, revealed the fact that there was apparently a considerable divergence of opinion among the enumerators as to the scope of the term "deaf and dumb." Some enumerators, on the one hand, interpreted the term in its most literal sense and reported only those persons who were destitute both of hearing and of articulate speech; thus the enumerator who covered the largest school for the deaf in the United States, having several hundred pupils, reported none of the pupils as deaf and dumb, presumably because they had all acquired in greater or less degree the faculty of articulation. On the other hand, some enumerators gave the term a broader interpretation and reported all deaf-mutes properly so-called (i. e., all persons who by reason of defective hearing either had never acquired the faculty of articulate speech or had required special instruction in order to acquire it), even if they had learned to speak, as well as any other deaf persons who by reason of their deafness had lost the faculty of speech which they possessed before the loss of their hearing. Furthermore, it became apparent from the replies to the request to fill out the special schedule that the enumerators had reported as deaf and dumb a large number of persons who were not suffering from defects of hearing or speech, at least to such an extent as to bring them properly within the scope of the enumeration. It was thus impossible to say just what the total reported as deaf and dumb by the enumerators represented. On the one hand it fell considerably short, in all probability, of including all deaf-mutes, according to the scientific signification of the term, and on the other hand it included many who were not deaf and dumb in the literal sense of the term, as well as many others who could not under any interpretation be regarded as deaf and dumb. For this reason it was finally decided not to make any tabulation covering the total population returned as deaf and dumb, but to confine the main presentation to those returning the special schedule, which contained data that afforded the means of determining whether the person making out the schedule was properly classifiable as deaf and dumb. Except in a few instances, therefore, the statistics for 1910 in this report relate solely to the deaf and dumb returning special schedules, and do not represent totals for the United States.

In making the tabulation for the report as finally planned, it was decided to include not merely the deaf and dumb in the most literal sense of the term, but also all persons who could be properly regarded as deaf-mutes. This was done partly because a tabulation on this basis was thought to be more in conformity with the spirit of the law and partly because a limitation of the statistics to those literally unable either to hear or to speak would have made the number so small as to render the resultant figures of little significance. In carrying out this decision it of course became necessary to lay down certain definite rules indicating just what conditions brought a person within the scope of the tabulation. Under these rules the tabulation cov-
ered the following classes of persons: (1) All totally deaf persons who had never acquired the power of speech, or having acquired it had lost it either wholly or to such an extent that it no longer constituted an effective means of communication, this class constituting the "deaf and dumb" in the most literal sense of the term; (2) all other totally deaf persons who had lost their hearing before the completion of their eighth year of life, even if they were able to employ speech as a means of communication; and (3) all partially deaf persons who could hear only with the aid of an ear trumpet or other mechanical appliance and whose deafness had supervened before the completion of 'their eighth year of life. The reason for fixing a limit with regard to the age when hearing was lost in the case of the two latter classes was that after the completion of the eighth year of life a child has presumably acquired fully the faculty of articulate speech, so that the problem, when he becomes deaf, is merely to keep him from losing what he already has; in adopting this limit, moreover, the Bureau of the Census is in practical accord with the Imperial Health Office of Germany, where more appears to have been done in the direction of developing scientific statistics of deaf-mutism than in any other country. ${ }^{1}$

The total number of schedules tabulated on the basis above set forth was 19,153. This figure of course represents only a part of the deaf-mute population of the United States, so that the absolute numbers derived from a tabulation of these schedules are not comparable with those for other censuses or other countries. But while the statistics are partial and incomplete, it does not follow that they are destitute of value. Unless the deficiencies affect one class of the population to a significantly greater extent relatively than another, and the respective classes in turn differ markedly in their characteristics as regards the subject of inquiry, a situation which there is no reason to suppose exists, the figures can be regarded as giving a fairly accurate representation of the composition and characteristics of the deaf-mute population of the United States. In other words, there is, in the absence of evidence to the contrary, a reasonable presumption that the portion of the deaf-mute population represented in the tabulation is typical of the whole, so that analyses based upon the results of this tabulation will in general give as correct an indication of the constitution of the deaf-mute population as if the tabulation had covered all deaf-mutes in the United States.

[^3]
## COMPARISON WITH PREVIOUS CENSUSES.

The enumeration of the deaf and dumb has varied to such an extent at the different censuses as regards scope and method that comparisons between the figures for the different years shed very little light on the question whether this class is increasing in number in the United States at a greater or a less rapid rate than the general population. As a matter of interest, however, Table 1 is presented, which shows for each census from 1830 to 1910 the number of deaf and dumb reported and their ratio to the total population.

| Trable 1 l | dEAF AND DUMB POPULATION OF TEE UNTED STATES. |  |  |
| :---: | :---: | :---: | :---: |
|  | Total. | Per 100,000 general population. | Per cent of increase over preceding census. ${ }^{1}$ |
| $1910^{2}$. | 44,708 | 48.6 | 83.5 |
| $1900{ }^{3}$. | 24,369 | 32.1 | -40.0 |
| $1890{ }^{4}$ | 40,592 | 64.8 | 19.8 |
| 18805. | 33, 878 | 67.5 | 109.1 |
| $1870{ }^{2}$ | 16,205 | 42.0 | 26.4 |
| $1860{ }^{2}$ | 12,821 | 40.8 | 30.8 |
| 18502 | 9,803 | 42.3 | 27.7 |
| 18402 | 7,678 | 45.0 | 25.7 |
| $1830{ }^{2}$ | 6, 106 | 47.5 | ..--** |

${ }^{1}$ A minus sign (-) denotes decrease.
3 Deaf persons unable to speak at all for whom special schedules were returned.
4 Deaf persons unable to speak at all.
$\&$ Deaf persons unable to speak at an.
s Deaf-mutes, exclusive of those reported as 16 years of age or over when hearing
was lost.
For all censuses prior to 1880 there is little question that the figures for the deaf and dumb population of the United States are seriously deficient. ${ }^{1}$ The results of certain censuses appear to have been publicly criticised, ${ }^{2}$ and in the report for at least one census ${ }^{3}$ the census authorities themselves specifically recognized the probability that there had been a considerable number of omissions. On the other hand, the marshals, on whom the duty of making the enumeration devolved, appear not infrequently to have erred through excess of zeal and to have included among the deaf and dumb persons who actually were able to speak. The figures for these censuses, therefore, do not afford any reliable basis for measuring the increase or decrease of deaf-mutism in the United States during the period covered by the table. They should, however, be broadly comparable with each other, as there was during this period no change of consequence in the method of reporting, and at all five censuses the meaning of the term "deaf and dumb" appears to have been regarded as sufficiently established by common usage to require no definition. Under these circumstances it is not improbable that the steady decrease in the ratio of the deaf and dumb to the

[^4]general population between 1830 and 1860 which is shown in the table does in fact reflect an actual decline in the relative number of deaf-mutes in the population. So far as there was any such decline, however, it was almost certainly due in large part to the increasing volume of immigration to the United States during this period, which would have caused a much greater increase in the general than in the deaf and dumb population, as deaf-mutes are not likely to migrate to any great extent; and it is not impossible that if there had been no immigration no decrease whatever would have been shown in the ratio. The increase in the ratio shown at the census of 1870 probably indicates an increase in the accuracy of the enumeration, a conjecture borne out by the circumstance that the number of blind persons enumerated per 100,000 of the total population also showed an increase at the census of 1870 for which it is difficult to account satisfactorily on any other hypothesis than that of an increased accuracy of enumeration.
At the census of 1880 a special effort was made to secure an accurate return of all the defective classes for which the Census Office was required to obtain statistics. As already indicated, in addition to the column on the general population schedule, which had at the last three censuses been the only medium for securing a return of the deaf and dumb population, a special supplemental schedule was provided, on which the enumerator was required to answer certain inquiries for each deaf-mute enumerated, receiving an additional compensation of five cents for each name thus reported. ${ }^{4}$ It was impressed upon the enumerator by his instructions that he was to make every possible effort to obtain a complete return of the deaf-mutes in his district; in particular, it was recommended that inquiry be made of physicians, schoolteachers, and deaf-mutes themselves as to where any deaf-mutes might be found. The enumerators were, moreover, for the first time given definite instructions for their guidance in determining who should be enumerated as deaf and dumb. The inquiries on the schedule, as already noted, were to be answered for each "deaf-mute" enumerated, "deaf-mute" being defined in the instructions as "one who can not speak because he can not hear sufficiently well to learn to speak." This of course would seem to imply that only those literally unable both to hear and to speak were to be reported, but other instructions made it evident that all deaf-mutes in the broader sense of the term, including those who had learned to speak as a result of special instruction, were to be reported. ${ }^{5}$ In

[^5]tabulating the returns, moreover, all persons reported as having lost their hearing after reaching the age of 16 were excluded, on the ground that by that time their powers of speech were so developed that they did not require special training at a school for the deaf. The enumerators' returns were supplemented to a certain extent by correspondence with institutional officials and local physicians, the number added by this means amounting to 4.4 per cent of the total. The results of the special diligence employed at this census are reflected in the great relative increase shown in the number of deaf and dumb persons enumerated and in their ratio to the general population as compared with 1870.

At the census of 1890, as already described, the enumerators were required to report every deaf or dumb person, instead of the deaf and dumb, as at previous censuses. The supplemental schedule for the deaf, however, contained an inquiry asking whether the person in question was "able to speak so as to be readily understood, * * * imperfectly * * *, or not at all * * *;" and on the basis of the answers to this inquiry the deaf reported were divided into two classes, the deaf who could speak and the deaf who could not speak, detailed statistics being published for the latter class, under the designation of "the deaf and dumb." The class covered by the tabulation for 1890, as presented in Table 1, therefore differed from that covered by the tabulation for 1880 in that the former included only the deaf and dumb in the most literal sense of the term while the latter included all deaf-mutes reported as having lost their hearing when less than 16 years of age, even if they had been taught to articulate. This difference in the comprehensiveness of the class covered by the tabulation furnishes an explanation of the decreased number of deaf and dumb per 100,000 population shown at the census of 1890 , although it is also probable that the census of the defective classes generally was much less complete in 1890 than in 1880.
The scope of the enumeration in 1900 was, as previously stated, essentially the same as in 1890 , covering all the deaf who were unable to understand loudly-shouted conversation, and the special schedule contained an inquiry in regard to the deaf person's power of speech which was practically the same as that on the 1890 schedule. The basic distinction between the "deaf and dumb" and the "deaf but not dumb" was not made in the tabulation at this census, and the published statistics covered all the deaf for whom schedules were returned; but the replies to the inquiry above referred to in regard to ability to speak were tabulated, and the figure presented for 1900 in Table 1 represents the deaf who reported themselves as unable to speak at all. As a result of differences in the method of collecting the data and in the basis of tabulation at this census, however, the figures are practically valueless for the purpose of numerical comparisons. As already noted, the special schedule
employed at this census was not filled out by the enumerator, as had been the practice at the censuses of 1880 and 1890 , but was mailed directly to the persons reported by the enumerators as deaf, and in many cases it was never returned. In tabulating the returns all persons who failed to return the schedule were excluded, although many of them must have been deaf, and some of them deaf-mutes. The figure shown for 1900 in Table 1, therefore, is only a partial figure, representing an unknown fraction of the true total, a circumstance which explains the great decreases shown in the table for 1900 as compared with earlier censuses.
The methods adopted at the census of 1910 have already been described. As regards the means for securing a return of the deaf and dumb in the first instance, they represent a reversion to the practice which prevailed at the censuses before 1880, since the enumerators were simply required, whenever they enumerated a deaf and dumb person, to indicate that fact in a column specially provided for the purpose on the general population schedule. The instructions to the enumerators, too, corresponded more closely to those at the census of $1870^{1}$ than to those at any other census. In view of these facts it is not surprising that the number of deaf and dumb persons enumerated per 100,000 of the total population approximates the number in 1870 much more closely than that for any subsequent census, a circumstance which, in view of the generally acknowledged deficiency in the returns for 1870 , makes it seem likely that in addition to the factors already mentioned (p. 14) as making the figures for the total deaf and dumb population in 1910 of uncertain significance, there were a considerable number of omissions in the returns. This is the more probable in view of the comparatively small increase in the number enumerated and the decided decrease in the ratio to the general population as compared with 1890, for which year the figures relate exclusively to the deaf who were unable to speak, since, even making allowance for the increase during the last 25 years in the teaching of speech to the deaf, it seems doubtful whether there has been so marked a falling off in the past two decades in the relative number of deaf and dumb in the most literal sense of the term. The return of the deaf and dumb in 1910, when the enumerators received no additional compensation for reporting this class, may indeed have very well been less complete than the returns in 1880 or 1890 , when each person reported represented so much additional compensation to the enumerators. It should be remembered, moreover, that a complete enumeration of any of the defective classes is hardly to be expected at a population census, by reason of the general reluctance of persons to acknowledge that they have defectives in their families. In view of the conditions just discussed the dependence which can be placed

[^6]upon the returns for 1910 as a quantitative measure of the extent of deaf-mutism in the United States becomes more than ever uncertain.
From what has been said it is apparent that the figures in Table 1 afford absolutely no indication as to whether deaf-mutism in the United States has been increasing or decreasing relatively to the population during the period covered by the table. It is probable, however, that the tendency has been in much the same general direction as in other countries. For this reason Table 2 is presented, which gives for several of the principal countries of Europe the deaf and dumb population as reported at the most recent census for which figures are available in comparison with that in 1880 or the nearest census year, together with the ratio of the deaf and dumb to the total population at these two censuses.

| Table 28 | DEAF AND DUEB POPULATION. |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Later census. |  |  | Earlier census. |  |  | Increase (+) or decrease ( - ) in number per <br> 100,000 <br> general population. |
|  | Year. | Number. | Per 100,000 general popu- lation. | Year. | Number. | Por 100,000 general popu- lation. |  |
| Austria........ | 1910 | 40,110 | 140.4 | 1880 | 28,958 | 130.8 | +9.6 |
| England and Wa | 11911 | 15,122 | 41.9 | 1881 | 13,295 | 51.2 | $\pm 9.3$ |
| France.......... | 1911 | 21,823 | 65.7 | 1876 | 21,395 | 58.0 | -2.3 |
| Hungary | 1910 | 32,098 | 153.7 | 1880 | 19,874 | 126.3 | +27.4 |
| Ireland. | 1911 | 3,145 | 71.6 | 1881 | 3,993 | 77.2 | $-5.6$ |
| Prussia. | 1910 | 34, 804 | 86.7 | 1880 | 27, 794 | 101.9 | $-15.2$ |
| Scotland.... | 1911 | 2,369 | 49.8 | 1881 | 2,142 | 57.3 | $-7.5$ |

${ }^{1}$ Figures include persons returned simply as dumb.
Of the seven countries for which figures are given in the preceding table, five show decreases in the ratio of the deaf and dumb to the total population during the approximately 30 -year period covered, while in one of the countries showing an increase (Austria) the census authorities attribute the increase mainly to changes in census methods accompanied by increased accuracy of enumeration in certain provinces. These decreases in the ratio are very probably accounted for in great part by the progress made during the past 30 years towards the control of the contagious and infectious diseases which are by far the most important causes of adventitious deaf-mutism. In view of the rather general tendency shown in the table towards a decrease in the number of deaf-mutes relatively to the population, it seems reasonable to suppose that a similar tendency may exist in the United States.

## COMPARISON WITH FOREIGN COUNTRIES.

Table 3 shows, for the United States and for most of the foreign countries taking censuses of the deaf and dumb, the deaf and dumb population as reported in the latest year for which returns are at hand, together with the total population and the number of deaf and dumb per 100,000 of the total population.

| Table 3 COUNTRY. | Year. | Total population. | dear and dumb POPOLATION. |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total. | Per 100,000 general popu- |
| North America. |  |  |  |  |
| Bahama 1slands. | 1901 | 53,735 |  | 50.2 |
| Bermuda Islands | 1901 | 20,961 | 7 | (1) |
| British Honduras | 1901 | - 37,479 |  |  |
| Danish Äntille | 1911 | $\begin{array}{r}7,206,643 \\ 27 \\ \hline\end{array}$ | 4,584 | 63.6 103.4 |
| Grenada. | 1911 | 66,750 | 65 | 97.4 |
| Jamaica | 1911 | 831,383 | 565 | 68.0 |
| Mexico. | 1910 | 15, 160, 369 | 7,774 | 51.3 |
| Nowfoundland and Labrador | 1911 | 242,619 | 354 | 145.9 |
| St. Lucia.: | 1911 | 48,637 | : 38 | 278.1 |
| St. Vincent | 1911 | 41,877 | 71 | 169.5 |
| Trinidad and T | 1911 | 333,552 | 8121 | ${ }^{8} 36.3$ |
| Continental United States. | 1910 | 91, 972,266 | 444,708 | - 48.6 |
| Hawail. | 1910 | 191,909 | 458 | 430.2 |
| Porto Ric | 1910 | 1,118,012 | 1756 | ${ }^{6} 67.6$ |
| South America. |  |  |  |  |
| Argentins | 2014 | 6 7,905,502 | 7,798 | 98.9 |
| Bolivia ${ }^{6}$ | 1900 | 1,633,610 |  | 21.5 |
| Chile... | 1907 | 3,249, 279 | 2,336 | 71.9 |
| Uruguey | 1908 | 1,042,686 | 690 | 66.2 |
| Eubope. |  |  |  |  |
| Austria.. | 1910 | 28,570,800 | 40,110 | 140.4 |
| Bolglum. | 1910 | 7,416,454 | 4,191 | 56.5 |
| Bulgaria. | 1905 | 4,035,575 | 4,098 | 101.5 |
| Cyprus. | 1901 | + 237,152 | 323 | 138.2 |
| Danmark ${ }^{\text {d }}$ | 1911 | 2,757,076 | 1,793 | 65.0 |
| England and | ${ }_{1911}^{1911}$ | 36,070, 492 | ${ }^{2} 15,122$ | 211.9 |
| France. | 1911 | 39,122,133 | 21,823 | 55.7 |
| Germainy | 1900 | 56,367, 178 | 48,750 | 86.5 |
| Prussia | 1910 | 40, 165, 219 | 34,804 | 86.7 |
| Saxony | 1910 | 4,806,661 | 2,440 | 50.8 |
| Glbraltar ${ }^{\text {s }}$ | 1911 | 19,120 |  | ${ }^{1}$ |
| Hungary | 1910 | 20,886, 487 | 32,098 | 153.7 |
| Ireland. | 1911 | 4,390, 219 | 3,145 | 71.6 |
| Isle of Man and Channel Isla | 1911 | 148,915 | ${ }^{2} 64$ | \$43.0 |
| Italy...... | 1901 | 32, 475, 253 | 31,267 | ${ }^{96.3}$ |
| Malta and Go | 1901 | , 207, 890 |  | 45.7 |
| Netherlands | 1909 | 5, 5 5 980,175 | 2,305 | 39.3 |
| Roumania | 1899 | 5, 556, 690 | 4,896 | 82.2 |
| Russia (European) 10 | 1897 | 102, 845, 117 | 109,556 | 108.5 |
| Scotland. | 1911 | 4,760,904 | 2,369 | 49.8 |
| Sarbla. | 1900 | 2, 492,882 | 4,167 | 187.2 |
| Sweden. | 1900 | 5,136,441 | 5,299 | 103.2 |
| Asta. |  |  |  |  |
| Ceylon... | 1901 | 3,573,419 | 112,578 | u 72.1 |
| Formoss ${ }^{\text {6 }}$ | 1905 | 3,039,751 | 410,077 | 134.1 |
| Indis...... | 1911 | $12315,156,396$ | 11199,891 | 1163.8 |
| Philippine Islands ${ }^{12}$ | 1903 | 6,987,686 | 5,910 | 84.6 |
| Russla (Aslatic) ${ }^{14}$. | 1897 | 22,794,904 | 14,957 | 65.6 |
| Arbica, |  |  |  |  |
| Gambia....... | 1901 | 13,456 | 24 | (1) |
| Mauritius and dopendencies | 1901 | 378,195 | ${ }^{2} 181$ | 377.9 |
| Soychelles Islands | 1901 | 19,258 | ${ }^{1} 10$ | ${ }^{(1)}$ |
| Sierra Leone...... | 1901 | 76, 655 | 13 | 17.0 |
| Uganda Protectorste 15. | 1911 | 2,462,469 | 3,572 | 145.1 |
| Union of South Africa. | 1911 | 5, 973,394 | ${ }^{2}, 398$ | 40.1 |
| Cape of Good Hope. | 1911 |  |  | 51.7 |
| Natal............. | 1911 | 1, 194,043 | 298 298 | 25.0 51.8 |
| Transvaal......... | 1911 | 1,686,212 | 499 | 29.6 |
| Adstralasia. |  |  |  |  |
| Commonwealth of Australia ${ }^{16}$. | 1911 | 4,455,005 | 1,852 | 41.6 |
| Now South Wales. | 1911 | 1,646,734 | 640 | 38.9 |
| Queensland........ | 1911 | 605, 813 | 257 | 42.4 |
| South Australia.. | 1911 | 408, 558 | 246 | 60.2 |
| Tesmania.. | 1911 | 191,211 | 98 | 51.3 |
| Victorla | 1911 | 1,315,551 | 535 76 | 40.7 26.9 |
| New Zoaland ${ }^{17}$... | 1911 | 1,008,468 | 301 | 29.8 |

${ }^{1}$ Ratio not shown by reason of the smallness of the numbers involved.
2 Figures include persons returned simply as dumb.
a Figures represent persons reported as dumb.
${ }^{2}$ Figures represent persons reported as dumab represent deef and dumb population as reported by population enumerators.

Includes 18,425 persons for whom no returns as to infirmities were secured. These were deducted in computing the ratio.

- Enumeratod population only.

7 Exclusive of Faroe Isiands.
8 Figures relate to civil population of city and territory only.
${ }^{8}$ Figures relate to civil population of city and
${ }^{10}$ Incluaes Azling Poland, but exclusive of Finland.
${ }^{12}$ Figures represent congenitally deaf and dumb only. inciudes $1,754,545$ persons for whom no returns as to infies were secured. These were deducted in computing the ratio.
${ }_{12} 1$ Civilized population.
${ }^{14}$ Caucasus, Siberia, and Central Asia
is Native population in administered districts.
${ }_{16}$ Natclusive of full-blooded aboriginals. Includes Northern Territory and Federal Capital Territory.
${ }_{17}$ Exclusive of Maoris and of population of annexed Pacffic islands.

GEOGRAPHIC DISTRIBUTION OF THE DEAF AND DUMB.
Table 4 shows for each division and state the total population reported as deaf and dumb in 1910 , with the number who returned satisfactory schedules and the percentage which this number represented of the total.

| Table $4 \times 1$ | POPULATION REPORTED AS DEAF AND DUMB: 1010. |  |  |
| :---: | :---: | :---: | :---: |
|  | Total. | Returning satisfactory schedules. |  |
|  |  | Number. | Per cent of total. |
| United States........................ | 44,708 | 19,153 | 42.8 |
| Geograpenc Divisions: New England | 2,373 | 1,187 | 50.0 |
| Middle Atlantic..... | 8, 823 | 4, 133 | 46.8 |
| East North Centrai | 9, 810 | 4, 329 | 44.1 |
| West North Central | 6,211 | 2,767 | 44.5 |
| South Atlantic..... | 6,260 | 2,326 | 37.2 |
| East South Central | 4,458 | 1,865 | 41.8 3 |
| West South Ceritral | 4,298 | 1,613 | $\begin{array}{r}37.5 \\ \hline \quad 34.3 \\ \hline\end{array}$ |
| Pacific... | 1,448 | 581 | 40.1 |
| New England: ${ }^{352}$ - 166 |  |  |  |
| Maine.......... | 352 202 | 166 99 | 47.2 49.0 |
| Vermont. | 128 |  | 48.4 |
| Massachusetts. | 1,131 | 566 | 50.0 |
| Rhode Island. | ${ }^{1} \mathbf{2 1 5}$ | 113 | 52.6 |
| Connecticut.. | 345 | 181 | 62.5 |
| Modde AThantic: |  |  |  |
| New York..... | 4,861 700 | 2,348 | 48.3 46.3 |
| New Jorsey... Pennsylvania | 300 3,262 | 1,324 1,461 | 46.3 44.8 |
|  |  |  |  |
| Ohio................ | 2, 675 | 1,154 | ${ }_{36.1}^{43.1}$ |
| Indiana. | 1,725 | 1,310 | 38.1 |
| Michigan.. | 1,374 | 1,660 | 48.0 |
| Wisconsin. | 1,302 | 571 | 43.9 |
|  |  |  |  |
| Iowa.. | 1,995 | 436 | 43.8 |
| Missouri... | 1,884 | 872 | 46.3 |
| North Dakota. | 1, 251 | 101 | 40.2 |
| South Dakota. | 331 | 109 | 32.9 |
| Nebraska.. | 674 | 280 | 41.5 |
| Kansas... | 963 | 470 | 48.8 |
|  |  |  |  |
| Delaware..... | 60 | 19 | 31.7 50.1 |
| Maryland ${ }^{\text {district of Columbia }}$ | 718 | ${ }_{56}$ | 47.5 |
| Virginia............ | 1,157 | 376 | 32.5 |
| West Virginia. | 1,739 | 304 | 41.1 |
| North Carolina. | 1,458 | 504 | 34.6 |
| South Carolina. | 744 | 245 | 32.9 |
| Georgia....... | 989 | 348 86 | 35.2 38.9 |
| East South Central: |  |  |  |
|  |  |  |  |  |
| Tennessee.. | 1,265 |  |  |
| Alabsma. | ${ }^{1} 826$ | 317 | 38.4 |
| Mississippi | 755 | 296 | 39.2 |
| West south Central: $\quad 747 \quad 336$ |  |  |  |
| Arkansas............. | 795 | 336 <br> 254 | 41.9 31.9 |
| Okiahoma. | 847 | 304 | 35.9 |
| Texas.: |  |  |  |
|  |  |  |  |  |
| Montana. | 118 | 48 | 34.7 |
| W yoming. | 25 | 14 | 56.0 |
| Colorado. | 260 | 109 | 41.9 |
| New Mexico.. | 192 | 59 | 30.7 |
| Arizona.. | 53 | 16 | 30.2 |
| Utah... | 236 23 | 58 7 | 24.6 30.4 |
|  |  |  |  |
|  |  |  |  |  |
| Oregon...... | 255 | 130 | 51.0 |
| California | 815 | 299 | 36.7 |

New York ranked first among the states in respect to the number of persons reported as deaf and dưmb in 1910 with 4,861, Pennsylvania second with 3,262 , Illinois third with 2,725 , and Ohio fourth with 2,675 , while the number exceeded 1,000 in 11 other states. The smallest number was reported from Nevada (23), and the next smallest from Wyoming (25); the number was also less than 100 in Arizona and Dela-
ware (53 and 60, respectively). The proportion of the population reported as deaf and dumb who returned satisfactory schedules was higher in New England than in any other division, being 50 per cent, or one-half. The Middle Atlantic division ranked next, with 46.8 per cent, while the proportion exceeded 40 per cent in four other divisions. The proportion was lowest ( 34.3 per cent, or a little more than one-third) in the Mountain division, the next divisions in this respect being the South Atlantic and West South Central, in which the percentages were 37.2 and 37.5 , respectively.

The differences between the percentages for the different divisions result from a variety of factors, of which the constitution of the population as regards race and nativity, the degree of illiteracy in the various classes of the general population, and the extent to which the population of the division resided in rural districts were probably the most important. Thus the high percentage of schedules returned for the New England and Middle Atlantic divisions is probably due in large part to the high percentage of urban population in these divisions, combined with a percentage of illiteracy below the average. The low proportion for the Mountain division appears to be due to the relatively large number of Indians in the population in this division and those for the South Atlantic and West South Central divisions in part to the large Negro population of the divisions, since the number returning the schedules was smaller relatively in the case of these two races than among the whites; the high percentage of illiteracy among the whites in the South Atlantic and West South Central divisions was also a factor of importance in causing the low proportion for these divisions. The proportion returning schedules was higher in Wyoming than in any other state, schedules being received for 14 out of the 25 deaf and dumb persons reported; Rhode Island and Connecticut ranked next, with proportions somewhat over one-half ( 52.6 per cent and 52.5 per cent, respectively), and in three other states (Oregon, Maryland, and Massachusetts) the percentage was 50 or over. The proportion was lowest in Utah, from which only 24.6 per cent, or practically one-fourth, of those reported as deaf and dumb returned schedules; this low percentage is partly explained by the fact that there was a considerable duplication in the returns, since many of the students at the state school for the deaf were enumerated both at the institution and with their families. The next lowest percentages are shown for Arizona, Nevada, and New Mexico, the figures being 30.2, 30.4 , and 30.7, respectively. The proportion fell below 35 per cent in seven other states, and in eight states was less than 40 per cent, although more than 35 per cent.

Table 5 shows for purposes of reference the number of deaf and dumb in the respective divisions and states as reported at each census from 1830 to 1910, inclusive.


1 Persons reported as deaf and dumb by the population enumerators.
2 Deaf persons unable to speak at all for whom special schedules were returned.
${ }^{2}$ Deaf persons unable to speak at all for whom special schedules were returned.
Deaf-mutes, exclusive of those reported as 16 years of age or over when hearing was lost.

No deaf and dumb persons reported.

- Figures for Dakota territory.

7 No deaf and dumb persons reported for Dakota territory.
8 Figures for Dakota territory given under North Dakota.

- Includes figures for Indian Territory.

10 Figures for Oklahoma territory only. Figures for Indian Territory are not available.

Table 6 shows the per cent distribution by geographic divisions both of the deaf and dumb population as reported and of those for whom special schedules were returned, in comparison with that of the total population.

The distribution of the deaf and dumb, both of the total number reported and of those returning schedules, shows no very pronounced difference from that of the total population. The variation between the percentage of the total population and of the reported deaf and dumb population shown for the individual
divisions is greatest relatively in the case of the New England and Pacific divisions, which contained a somẹwhat smaller proportion of the deaf and dumb than of the total population. This probably results from the fact that the population of these divisions consists largely of migrants from other states or countries, among whom deaf-mutes are not very likely to be found. In the case of the deaf and dumb returning schedules the Mountain and Pacific divisions show the greatest relative difference, the former mainly by reason of the low percentage of the enumerated deaf and dumb who returned schedules.

| Table 68 drvision. | PER CENT DIStRIbution: 1910. |  |  |
| :---: | :---: | :---: | :---: |
|  | Total population. | Deaf and dumb population. |  |
|  |  | Total reported. | Returning special schedules. |
| United States.. | 100.0 | 100.0 | 100.0 |
| New England.. | 7.1 | 5.3 | 6.2 |
| Middle Atlantic.. | 21.0 | 19.7 | 21.6 |
| Wast North Central. | 19.8 | 21.9 | 22.6 |
| West North Central | 12.7 | 13.9 | 14.4 |
| South Atlantic... | 13.3 | 14.0 | 12.1 |
| East South Contral. | 9.1 | 10.0 | 9.7 |
| WestSouth Central | 9.6 | 9.6 | 8.4 |
| Mountain......... | 2.9 | 2.3 | 1.8 |
| Pacific. . | 4.6 | 3.2 | 3.0 |

SEX.
Of the 19,153 deaf and dumb persons for whom schedules were returned 10,507 were males and 8,646 females, the number of males to each 100 females being 121.5. This pronounced excess of males among deaf-mutes is a well-recognized statistical phenomenon, for which, however, no satisfactory explanation has yet been found. To a certain extent, of course, it is due to the preponderance of male births, but as the number of males per 100 females in the general population under 10 years of age, the period of life when most deaf-mutes lose their hearing, is only 102.2 it is obvious that there must be some other factor involved, especially as the higher death rate among infant males tends normally to equalize the number of the sexes. It is true that the number of males to each 100 females in the general population without distinction of age is by reason of the excess of males among the foreign-born whites somewhat greater than in the population under 10 (106 as compared with 102.2); but as deaf-mutes in all probability rarely migrate, the foreign-born deaf-mutes in the United States presumably comprise mainly persons who were broughtinto the country by their relatives while children, and would therefore be affected to only a comparatively slight extent by the causes operating to produce the excess of males among the total foreign-born population. The statistics relative to age when hearing was lost and cause of deafness seem to indicate that the most influential cause of the excess of males among deaf-mutes may be a greater susceptibility of this sex to the zymotic diseases which are responsible for the
major part of acquired deaf-mutism, although it is impossible to state why this should be the case.

Table 7. shows the male and female deaf' and dumb population returning special schedules at the census of 1910 in comparison with that reported at each census from 1850 to 1900 , inclusive, together with the number of males per 100 females and the corresponding ratio in the general population. Similar statistics for 1830 and 1840 are not available, as the male and female deaf and dumb were not separately returned at these censuses. In connection with the absolute numbers what has already been said relative to the comparability of the returns for the several censuses should be kept in mind.

| Table 7 l | deaf and dumb population or the united stateg. |  |  | Males per 100 females in the general populstitu. |
| :---: | :---: | :---: | :---: | :---: |
|  | Male. | Female. | $\begin{gathered} \text { Males } \\ \text { per } 100 \\ \text { females. } \end{gathered}$ |  |
| $1910{ }^{1}$. | 10,507 | 8,646 | 121.5 | 106.0 |
| $1900{ }^{\text {s. }}$ | 13, 495 | 10,874 | 124.1 | 104.4 |
| 1890. | 22, 429 | 18, 163 | 123.5 | 105.0 |
| 1880. | 18,567 | 15,311 | 121.3 | 103.6 |
| 1870. | 8,916 | 7,289 | 122.3 | 102.2 |
| 1860 | 7,124 | 5,697 | 125.0 | 104.7 |
| 1850. | 5,418 | 4,385 | 123.6 | 104.3 |

1 Figures for deaf and dumb relate to population returning special schedules ouly: Figures for deaf and dumb relate to deaf unable to speak at allfor whom special schedules were returned.

At each census included in the table the number of males to each 100 females has been considerably higher among the deaf and dumb than in the total population. The variations in the ratio have been comparatively slight, the number being greatest (125) in 1860 and smallest (121.3) in 1880. The ratio in 1910 was practically the same as that in 1880.

Table 8 shows for most of the foreign countries for which statistics are available the number of males and females, respectively, in the deaf and dumb population as reported at the latest census for which figures are at hand, together with the ratio of males to females in comparison with the corresponding figure for the general population.

This table brings out clearly what has already been said as to the tendency towards an excess of males among the deaf and dumb. In every country for which the ratio of males to females among the deaf and dumb is given in the table there is an excess of males in this class of the population, even though the general population may show an excess of females. The contrast is especially marked in the case of Portugal, for which the number of males to each 100 females among the deaf and dumb is 142.9, as compared with only 90.3 in the general population. In practically every country, moreover, the excess of males is greater among the deaf and dumb than in the general population, the only exceptions being New South Wales and New Zealand. These facts, of course, indicate that the number of deaf-mutes is in general greater relatively among males than among females, but the reason for this is difficult to ascertain.

| Table 8 | Year. | deaf and dumb population. |  |  |  |  | Males per $1001 \theta-$ in the general popu-lation. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Male. |  | Female. |  | Males per 100 emales. |  |
|  |  | Total num ber. | Num-berper100,000malepopu-lation. | $\begin{aligned} & \text { Total } \\ & \text { num- } \\ & \text { ber. } \end{aligned}$ | $\left\|\begin{array}{c} \text { Num- } \\ \text { ber } \\ \text { per } \\ \text { por, } \\ \text { femane } \\ \text { female } \\ \text { popu- } \\ \text { lation. } \end{array}\right\|$ |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| North America. |  |  |  |  |  |  |  |
| Bermuda Islands. | 1901 | 3 | (1) | 4 | (1) | ${ }^{(3)}$ | 112.2 |
| Canada. | 1911 | 2, 491 | 65.2 | 2,093 | ${ }_{82}^{61.8}$ |  | 112.9 85.8 |
| Danish A | 1911 | ${ }_{23}^{16}$ | 127.9 | 42 | 115.5 | (3) | 85.6 83.6 |
| Jramaica | 1911 | 305 | 76.7 | 260 | 59.9 | 117.3 | 91.6 |
| Mexico. | 1910 | 4,644 | 61.9 | 3,130 | 40.9 | 148.4 | 98.0 |
| St. Vincent | 1911 | 34 | 185.3 | 85 | ${ }_{3}^{157.2}$ | (\%) | 78.0 |
| Trinidad and Tobago. | 1911 | ${ }^{3} 68$ | : 39.0 | 853 | ${ }^{3} 33.3$ | (2) | 109.5 |
| United States: |  |  |  |  |  |  |  |
| states | 1910 | 410,507 | (5) | 48,646 | (5) | 4121.5 | 108.0 |
| Hawaii. | 1910 | 32 | 26.0 | 261 | 37.8 | (1) | 178.9 |
| Porto Rico | 1910 | 395 | 70.9 | 361 | 64.4 | 109.4 | 99.4 |
| South America. |  |  |  |  |  |  |  |
| Argentina ${ }^{\text {a }}$ | 1914 | 4,443 | 105.1 | 3,355 | 91.7 | 132.4 | 115.5 |
| Bolivia ${ }^{\text {a }}$ | 1900 | ${ }^{1} 227$ | 27.7 | 125 | 15.3 | 181.6 | 100.6 |
| Chile. | 1907 | 1,416 | 87.2 | 920 | 56.6 | 153.9 | 99.9 |
| Urugusy. | 1908 | 397 | 74.8 | 293 | 57.2 | 135.5 | 103.6 |
| EUROPE. | 1910 | 21,514 | 153.3 | 18,596 | 127.9 | 115.7 | 96.5 |
| Belgium | 1910 | 2,290 | 62.3 | 1,901 | 50.8 | 120.5 | 98.4 |
| Bulgaria | 1905 | 2,381 | 115.7 | 1,717 | 86.8 | 138.7 | 104.0 |
| Cyprus. | 1901 | 178 | 147.0 | 145 | 125.0 | 122.8 | 104.4 |
| Denmark | 1911 | 973 | . 72.7 |  | ${ }^{5} 57.8$ | 118.7 | 94.3 |
| England | 1911 | -8,167 | - 137.8 | ${ }^{\text {-6,935 }} 1$ | 9 37.3 118.4 | -117.4 | 93.7 97.9 |
| France. | 1911 | 12, 136 | 63.0 | 9,687 | 48.6 | 125.3 | 96.6 |
| Germany | 1900 | 26,368 | 95.1 | 22,382 | 78.2 | 117.8 | 96.91 |
| Prussio | 1910 | 18,659 | 94.0 | 16,145 | 79.5 | 115.6 | 97.7 |
| Saxony | 1910 | 1,349 | 58.0 | 1,091 | 43.9 | 123.6 | 83.6 |
| Gibraltar | 1911 | 13.26 | 144.0 | 11,651 | 120.5 | 118.4 | 85.0 99.1 |
| Ireland. | 1911 | 1,751 | 79.9 | 1, 394 | 63.4 | 125.6 | 99.7 |
| Isle of Man and Channel | 1911 | ${ }^{-32}$ | 945.6 | 032 | 940.6 |  | 89.1 |
| Italy. | 1901 | 17, 284 | 107.0 | 13,983 | 85.7 | 123.6 | 99.0 |
| Malta and G | 1901 | 17, 51 | 44.7 |  | 46.9 | (1) | 121.5 |
| Netherlands. | 1909 | 1,228 | 42.4 | 1,077 | 36.4 | 114.0 | 98.0 |
| Portugal 11 | 1911 | 2,030 | 71.8 | 1,421 | 45.4 | 142.9 | 90.3 |
| Roumanis | 1897 | 3,093 | 102.2 | 1, 803 | 61.5 | 171.5 | 103.3 |
| Russia (Eur | 1897 | 60, 524 | 119.9 | 49, 032 | 93.6 | 123.4 <br> 112. | 98.3 |
| Scotland | 1911 | 1, 255 | 54.4 | 1,114 | 45.4 | 112.7 | 94.2 105.8 |
| Sweden. | 1900 | 2,950 | 117.7 | 2,349 | 89.3 | 125.6 | 95.3 |
| Cevion....... | 1901 | 131,542 | 1881.0 |  |  |  |  |
| Formos | 1905 | 2,470 | 153.3 | ${ }^{1,607}$ | 112.5 | ${ }^{153} 18$ | 114.0 |
| India ${ }^{\text {b }}$ | 1911 | 13119,251 | 1874.3 | $1 \pm 80,640$ | ${ }^{18} 52.7$ | 18147.9 | 112.8 |
| Philippine Islands | 1903 | 3,261 | 93.3 | 2,649 | 75.9 | 123.1 | 100.2 |
| Russia (Asiatic) ${ }^{15}$. .......... | 1897 | 9,055 | 75.4 | 5,902 | 54.8 | 153.4 | 111.5 |
| Africa. |  |  |  |  |  |  |  |
| Mauritius and dependencies | 1901 | ${ }^{3} 125$ | ${ }^{8} 61.1$ | ${ }^{5} 5$ | 332.2 | (3) | 117.8 |
| Seychelles Islands. | 1901 | ${ }^{6}$ | (1) | 84 | (1) | (2) | 104.2 |
| Sierra Leone... | 1901 |  | 14.3 | 7 | 20.1 | (8) |  |
| Uganda Protectorate ${ }^{10}$ | 1911 | 1,929 | 173.3 | 1,643 | ${ }_{21}^{121.8}$ | 117.4 |  |
| Union of South Africs. | 1911 | $\begin{array}{r}1,475 \\ \hline 88\end{array}$ | 48.1 62.1 | 923 | 31.8 41.8 | 159.8 142.6 | 105.7 95.9 |
| Natal... | 1911 | 230 | 40.7 | 68 | 10.8 | (1) | 89.7 |
| Orange Free State. | 1911 | 148 | 53.3 | 126 | 50.3 | 117.5 | 110.7 |
| Transvari........ australasta. | 1911 | 317 | 32.6 | 182 | 25.5 | 174.2 | 135.9 |
|  |  |  |  |  |  |  |  |
| tralia ${ }^{17}$ | 1911 | 998 | 43.1 | 854 | 39.9 | 116.9 | 108.0 |
| New South Wale | 1911 | 330 | 38.5 | 310 | 39.3 | 106.5 | 108.7 |
| Queonsland... | 1911 | 160 | 48.6 | 97 | 35.1 | ${ }^{(1)}$ | 119.3 |
| South Australia | 1911 | $\begin{array}{r}134 \\ 54 \\ \hline\end{array}$ | 64.6 55.3 | 112 | 65.7 47.0 | 119.6 | 103.1 |
| Victoria. | 1911 | 280 | 55.3 42.7 | 255 | 47.0 38.6 | (1) ${ }^{109.8}$ | 104.2 99.3 |
| Western Australi | 1911 | 40 | 24.8 | 36 | 29.9 | (2) | 134.0 |
| New Zealand ${ }^{18}$. | 1911 | 154 | 29.0 | 147 | 30.8 | 104.8 | 111.6 |

${ }^{1}$ Ratio not shown by reason of the smallness of the numbers involved.
2 Ratio not shown where number of females is less than 100.
8 Figures represent persons reported as dumb.

- Includes only deaf and dumb returning special schedules.

6 Ratio not shown by reason of the incompleteness of the returns.
6 In computing the ratios persons for whom no returns as to infirmities wer secured were deducted from the general population.
${ }_{8}^{7}$ Exumerated Dopulation only.

- Exclusive of faroe Islands.

10 Figures relate to civil population of city and territory only.
${ }^{11}$ Includes Azores and Madeira.
${ }^{3} \mathrm{Including} \mathrm{Poland} ,\mathrm{but} \mathrm{exclusive} \mathrm{of} \mathrm{Finland}$.
${ }^{18}$ Figures represent congenitally deaf and dumb only.
14 Civilized population.
${ }^{4}$ Caucasus, Siberia, and Central Asia.
${ }_{17}{ }^{16}$ Native population in adminisitered districts.
${ }^{17}$ Exclusive of full-blooded aboriginals.
${ }^{\text {rs }}$ Exclusive of Maorls and of population of annexed Pacific islands.

General Table 1 (p. 111) shows for each division and state the number of males and females, respectively, among the deaf and dumb population in 1910 for whom special schedules were returned. Table 9 shows the number in each geographic division, together with the ratio of males to females in comparison with the corresponding ratio in the total population.

| Table 9division | DEAF AND DUMB POPULATION FOR WHOM SPECLAL SCHEDULES WERE RETURNED: 1910. |  |  | Males per 100 females in the general population: 1910. |
| :---: | :---: | :---: | :---: | :---: |
|  | Male. | Female. | Males <br> per 100 <br> females. |  |
| United States. | 10,507 | 8,646 | 121.5 | 106.0 |
| New England. | 654 | 533 | 122.7 | 99.3 |
| Middle Atlantic. | 2,331 | 1,802 | 129.4 | 103.3 |
| East North Central. | 2,262 | 1,967 | 120.1 | 106.0 |
| West North Central | 1,532 | 1,235 | 124. 0 | 109.9 |
| Eouth Atlantic. | 1,257 | 1,069 | 117.6 | 101.2 |
| East South Central. | 1,005 | 860 | 116.9 | 101.9 |
| West South Central | 849 | 764 | 111.1 | 107.2 |
| Mountain...... | 203 | 149 | 136.2 | 127.9 |
| Pacific.... | 314 | 267 | 117.6 | 129.5 |

The number of males per 100 females was higher (136.2) in the Mountain division and lower (111.1) in the West South Central division than in any other. The variations in the ratios for the different divisions are difficult of explanation, and it is possible that to a considerable extent they may reflect differences in the degree of completeness with which the deaf-mutes of the respective sexes were enumerated and returned the schedules.

RACE AND NATIVITY.
Table 10 shows the distribution by race and nativity of the deaf and dumb population in 1910 for whom special schedules were returned, and also the per cent distribution on this basis of the total population.

| Table 10race and nattitit. | deaf and dumb porULATION FOR WHOM spectal screddeles WERE BETURNED: 1910. |  | Per cent distribul totel popula1910. |
| :---: | :---: | :---: | :---: |
|  | Number. | Per cent distribution. |  |
| All classes. | 19,153 | 100.0 | 100.0 |
| White. | 18,016 | 94.1 | 88.9 |
| Native Foreign-born. | 16,178 1,838 | 84.5 9.6 | 74.4 14.5 |
| Colored. | 1,137 | 5.9 | 11.1 |
| Negro.. | 1,069 | 5.6 | 10.7 |
| Other colored.. |  | 0.4 | 0.4 |
| Indian...... | 66 | 0.3 | 0.3 |
| Chinese and Japanese. | 2 | (1) | 0.2 |

${ }^{1}$ Less than one tenth of 1 per cent.
Of the 19,153 deaf-mutes for whom schedules were returned, 16,178, representing 84.5 per cent, or a little more than five-sixths, were native whites, 1,838 , representing 9.6 per cent, or about one-tenth, were foreign-born whites, and 1,069 , or 5.6 per cent, were Negroes. Of the remainder, 66 were Indians, 1 Chinese, and 1 Japanese.

The fact that native whites are much more numerous relatively, and foreign-born whites and Negroes less numerous, among the deaf-mutes covered by the tabulation than in the general population is in all likelihood largely accounted for by differences in the extent to which the special schedule was returned by the different races. This may be inferred from the differences in the case of the blind enumerated in 1910, among whom 54.4 per cent of the native whites returned the schedule, as compared with corresponding percentages of 49.4 for the foreign-born whites and 40.8 for the Negroes. It is probable, however, that the proportion both of foreign-born whites and of Negroes is actually smaller among deaf-mutes than in the general population. This is brought out by Table 11, which shows the main race and nativity classes of the deaf and dumb enumerated at each census from 1830 to 1890 , inclusive, together with the number per 100,000 of the same race and nativity. Simitar figures for 1910 and 1900 are not given by reason of the fact that, owing to the deficiencies in the published returns, ratios per 100,000 population by race and nativity would be of doubtful value. Prior to 1860 only the white and colored were distinguished, but practically all the colored enumerated at these early censuses were Negroes. In connection with this table what has previously been said regarding the comparability of the figures for the various censuses must be borne in mind.


At each census covered by the table the ratio of deaf and dumb to total population was much higher for the whites as a whole than for the Negroes, and at each census at which the whites were classified according to nativity it was much higher for the native than for the foreign-born whites. The chief explanation of the low ratio for the foreign-born whites lies of course in
the fact that most of the immigrants to the United States are adults, and hence would probably comprise relatively few deaf-mutes, since practically all deafmutes become so in childhood and an adult deaf-mute would not be likely to migrate from his own country; the provision of the immigration law requiring the exclusion of persons likely to become public charges may also be a contributing factor. The figures thus bear out what has already been said as to the probability that the foreign-borm whites actually make a smaller contribution relatively to the deaf and dumb than to the general population.

While there is reason to believe that the returns for the Negroes are somewhat less complete than those for the whites, the magnitude of the difference between the ratios for this class and those for the native whites is such that the conclusion seems forced that there are setually more deaf-mutes relatively in the latter class than in the former. The low ratio for the Negroes is more difficulfe to account for than that for the foreign-born whites, but it is significant in this connection that mortality returns tend to indicâte that the Negroes are less susceptible to certain of the diseases which are of importance as causes of adventitious deafness than are the whites. This is brought out by Table 12, which shows the average annual death rate from measles, scarlet fever, diphtheria, and meningitis among the white and colored, respectively, in the registration area for the 5 -year period 1910-1914. The term "Colored" covers the Negroes, Indians, Chinese, Japanese, and all other colored races, but in the registration area there were relatively few colored other than Negroes.

| Table 12catse or death. | average annoal death RATE IN THE REGISTRATION AREA PER 100,000 POPULATION: 1010-1014. |  |
| :---: | :---: | :---: |
|  | White. | Colored. |
| Measles. | 9.7 | 8.4 |
| Scarlet fever | 8.7 | 2.2 |
| Diphtheria and croup | 19.4 | 10.6 |
| Meningitis. . . . . . . . . | 11.0 | 17.3 |

The death rate from scarlet fever during the period 1910-1914 was practically four times as great and that from diphtheria nearly twice as great for the whites as for the colored, while that from measles was slightly higher for the former class than for the latter. On the other hand, Negroes appear to be somewhat more susceptible to meningitis, another leading cause of deaf-mutism, than are whites; the difference, however, is not sufficiently great to make up for the higher rate from the three causes first mentioned which is shown for the whites. It seems probable, therefore, that differences in the relative extent to which the respective races suffer from the leading causes of acquired deafness may explain in part the fact that a relatively smaller number of deàfmutes was reported among Negroes than among whites.

General Table 1 (p. 111) shows for each division and state the number of deaf-mutes for whom special schedules were returned, classified according to race, nativity, and sex. Table 13 gives the per cent distribution according to race and nativity of the deaf and dumb population returning schedules in each division, in comparison with the corresponding distribution of the total population.

| Table 13 <br> dIVISION AND CLASS OF POPULATYON. | PER CENT OF TOTAL: 1910. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | White. |  |  | Negro. | All other. |
|  | $\begin{gathered} \text { All } \\ \text { classes. } \end{gathered}$ | Native. | Foreignborn. |  |  |
| United States: Total population. Deaf and dumb $\qquad$ | $\begin{aligned} & 88.9 \\ & 94.1 \end{aligned}$ | $74.4$$84.5$ | 14.59.6 | $\begin{array}{r} 10.7 \\ 5.6 \end{array}$ | 0.4 |
|  |  |  |  |  |  |
| New England: |  |  |  |  |  |
| Total population | 98.9 | 71.2 | 27.7 | 1.0 | 0.1 |
| Deaf and dumb ${ }^{1}$ | 99.1 | 79.2 | 19.9 | 0.8 | 0.1 |
| Middle Atlantic: |  |  |  |  |  |
| Total population. | 97.7 | 72.8 | 25.0 | 2.2 | 0.1 |
| Deaf and dumb ${ }^{1}$ | 98.6 | 82.8 | 15.8 | 1.3 | 0.1 |
|  |  |  |  |  |  |
| Total population. | 98.2 | 81.4 | 16.8 | 1.6 | 0.1 |
| Deaj and dumb ${ }^{1}$. | 98.8 | 86.7 | 12.0 | 1.1 | 0.1 |
| West North Central: |  |  |  |  |  |
| Total population. | 97.5 | 83.7 | 13.9 | 2.1 | 0.4 |
| Deaf and dumb ${ }^{\text {3 }}$ | 97.1 | 87.4 | 9.8 | 2.1 | 0.8 |
| South Atlantic: |  |  |  |  |  |
| Total population. | 66.2 | 63.8 | 2.4 | 33.7 | 0.1 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Dear and dumb ${ }^{\text {² }}$. | 68.4 84.8 | 67.4 84.2 | 1.0 | 31.5 15.2 | (2) |
| West South Central: |  |  |  |  |  |
| Total population | 76.5 | 72.5 | 4.0 | 22.6 | 0.9 |
| Deaf and dumb ${ }^{1}$ | 89.1 | 87.0 | 2.1 | 9.8 | 1.1 |
|  |  |  |  |  |  |
| Total population. | 95.7 | 79.1 | 16.6 | 0.8 | 3.5 |
| Deaf and dumb ${ }^{1}$ | 96.3 | 87.8 | 8.5 | 1.1 | 2.6 |
|  |  |  |  |  |  |
| Total population. | 96.0 | 75.4 | 20.5 | 0.7 | 3.3 |
| Deaf and dumb ${ }^{1}$. | 98.8 | 88.5 | 10.3 | 0.2 | 1.0 |

1 Deaf and dumb for whom special schedules were returned only.
2 Less than one-tenth of 1 per cent.
In every division native whites formed a larger and foreign-born whites a smaller proportion of the deaf and dumb for whom special schedules were returned than of the total population, and in every division except two, Negroes formed a smaller proportion of the former than of the latter, the exceptions being the West North Central and Mountain divisions, in which there are comparatively few Negroes. The difference between the two sets of percentages is especially striking in the three southern divisions, where the Negro population is mainly concentrated. Although in the South Atlantic and East South Central divisions Negroes formed in 1910 about one-third (33.7 and 31.5 per cent, respectively) of the total population, and in the West South Central division more than onefifth ( 22.6 per cent), they contributed less than onefifth ( 19.5 per cent) of the deaf and dumb population returning schedules in the South Atlantic division, less than one-sixth ( 15.2 per cent) of that in the East South Central, and less than one-tenth ( 9.8 per cent) of that in the West South Central. These differences seem entirely too large to be explained by the difference in the proportion of the respective races who returned the special schedule, unless the latter difference was much greater among the deaf and dumb than among the blind, which seems rather improbable. The prob-
able influence of the difference in the percentage returning the schedule is roughly indicated by the following table, which shows for the three southern divisions the percentage of Negroes in the total population and the percentage of Negroes which there would have been in the blind population returning the special schedule if the ratio of enumerated blind to total population had been the same for the Negroes as for the whites, assuming that the percentage returning the special schedule remained unchanged.

| Table 14: | PER CENT NEGRO: 1910. |  |
| :---: | :---: | :---: |
|  | In total population | In blind population returning schedules if ratio of blind to total population had been the same among <br> Negroes as among whites. |
| South Atlantic. | 33.7 | 29.2 |
| East South Central. | 31.5 | 27.7 |
| West South Central. | 22.6 | 19.2 |

Inasmuch as the percentage Negro in the blind population would be practically the same as in the total population if there were no difference in the ratio of blind to total population for whites and Negroes, respectively, the differences shown in the table between the percentage Negro in the blind population returning special schedules and that in the total population are mainly due to the differences between the white and the Negro blind in the percentages returning the schedule. It will be seen that the differences between the percentage Negro in the hypothetical blind population returning special schedules and that in the total population for the respective divisions are comparatively small and are considerably less than the corresponding differences between the percentage Negro in the deaf and dumb population returning schedules and in the total population (see Table 13). In view of these facts it is doubtful whether these latter differences can be explained solely on the theory that a larger number relatively of the whites than of the Negroes returned the special schedule; and it seems probable, therefore, that in these divisions Negroes actually contribute a much smaller proportion of the deaf and dumb than of the total population, a circumstance which would of course confirm the supposition that deaf-mutism is less common among Negroes than among whites.

Table 15 shows the distribution, by sex, of the deaf and dumb population in each race and nativity class in 1910 for whom special schedules were returned, together with the number of males per 100 females, in comparison with the corresponding ratio for the general population.

All classes show an excess of males in the deaf and dumb population returning schedules, including even
the Negroes, among whom there is an excess of females in the general population. The ratio of males to females among the deaf and dumb was practically the same for the native whites and the Negroes. It was considerably higher for the foreign-born whites than for the other two main classes, although the actual difference was probably less, as there is reason to believe that a somewhat larger proportion of the male than of the female children among the foreign-born white deaf-mutes were attending school, a circumstance which would be likely to affect the ratio through the fact that certain large institutions for the deaf in New York City appear to have made a special effort to see that schedules were returned for their pupils. In the case of the native whites the excess of males was considerably greater among the deaf and dumb than in the general population; for the foreign-born whites, however, it was slightly higher in the general population, probably by reason of the fact thatthere is a considerable excess of males among the adult immigrants to the United States, who contribute the great bulk of the foreign-born white population, whereas the foreign-born white deaf-mutes probably comprise for the most part persons who were brought to the United States by their parents as children, among whom the sex ratio would tend more nearly to approach the normal.

| Table 15Race and nativity. | DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED: 1910. |  |  |  | Males per $100 \mathrm{fe}-$ males in general population of same race and nativity: 1910. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total. | Male. | Female. | $\begin{aligned} & \text { Males per } \\ & 100 \\ & \text { females. } \end{aligned}$ |  |
| All classes. | 19,153 | 10,507 | 8,646 | 121.5 | 106.0 |
| White. | 18,016 | 9,888 | 8,128 | 121.7 | 106.6 |
| Native. | 16,178 | 8,855 | 7,323 | 120.9 | 102.7 |
| Foreign-born | 1,838 | 1,033 | 805 | 128.3 | 129.2 |
| Colored. | 1,137 | 619 | 518 | 119.5 | 101.3 |
| Negro. $\qquad$ Other colored | 1,069 68 | 584 35 | 485 33 | ${ }_{(1)}^{120.4}$ | 98.9 185.7 |

${ }^{1}$ Ratio not shown where number of females is less than 100.
COUNTRY OF BIRTH OF FOREIGN-BORN WHITE DEAFMUTES.

General Table 2 (p. 112) shows for each division and state the distribution, by country of birth, of the foreignborn white deaf-mutes in 1910 for whom schedules were returned. Table 16, on the next page, compares this distribution for the United States as a whole with that of the total foreign-born white population.
Three countries-Germany, Russia, and Canada (including Newfoundland)-furnished more than onehalf ( 55.3 per cent) of the foreign-born white deafmutes for whom special schedules were returned, Germany leading with 24.5 per cent, or about one-fourth, of the total, and Russia ranking second with 16.6 per cent, or one-sixth, of the total. These percentages are
substantially larger than the corresponding figures for the total foreign-born white population, 'of whom only 39.7 per cent, or less than two-fifths, reported one of these three countries as country of birtli, the proportion born in Germany being 18.7 per cent and the proportion born in Russia 12 per cent.

| Table 16COUNTEY or mirth. | FOREIGN-BORN WHITE DEAF AND DUMB POPULATION OF THE UNITED STATES FOR WHOM SPECIAL SCHEDULES WERE RETURNED: 1910. |  | Per cent distribution of total foreignborn white population of the United States: 1910. |
| :---: | :---: | :---: | :---: |
|  | Number. | Per cent distribution. |  |
| All countries. | 1,838 | 100.0 | 100.0 |
| Austria-Hungary. | 169 | 9.2 | 12.5 |
| Austria....... | 131 | 7.1 | 8.8 |
| Hungary...... | 38 | 2.1 | 3.7 |
| Balkan Peninsula 1...... | 13 | 0.7 | 1.7 |
| Canada and Newfoundland | 262 | 14.3 | 9.0 |
| Of French parentage. | 97 | 5.3 | 2.9 |
| Of other parentage. | 165 | 9.0 | 26.1 |
| England and Wales... | 140 | 7.6 | 7.2 |
| France....... | 15 | 0.8 | 0.9 |
| Germany. | 450 | 24.5 | 18.7 |
| Treland. | 91 | 5.0 | 10.1 |
| Italy... | 103 | 5.6 | 10.1 |
| Mexico. | 4 | 0.2 | 1.6 |
| Netherlands and Belgium | 19 | 1.0 | 1.3 |
| Netherlands. | 17 | 0.9 | 0.9 |
| Belgium..... | 2 | 0.1 | 0.4 |
| Russia and Finland | 312 | 17.0 | 13.0 |
| Russia. | 305 | 16.6 | 12.0 |
| Finland. | 7 | 0.4 | 1.0 |
| Scandinavian countries. | 155 | 8.4 | 9.4 |
| Denmark. | 13 | 0.7 | 1.4 |
| Norway | 54 | 2.9 | 3.0 |
| Sweden. | 88 | 4.8 | 5.0 |
| Scotland. | 37 | 2.0 | 2.0 |
| Swítzerland......... | 33 | 1.8 | 0.9 |
| All other countries ${ }^{\text {a }}$ | 35 | 1.9 | 1.7 |

${ }^{1}$ Includes Bulgaria, Greece, Montenegro, Roumania, Serbia, and Turkey in Europe.
${ }^{2}$ Includes all persons reporting Newfoundland as country of birth.
3 Includes persons born at sea.
Since, as already stated, most of the foreign-born white deaf-mutes probably were very young when they came to the United States, the differences between the percentages reporting the respective countries of birth in the total and the deaf and dumb population should reflect mainly differences in the proportion of children among the immigrants from the various countries, although differences in the degree of illiteracy or in knowledge of the English language probably are to some extent a contributory factor in the percentages shown in the table through their influence on the relative number returning schedules. Exact statistics as to the relative number of children among the immigrants from the different countries are not available, as the only age statistics given in the reports of the Commissioner General of Immigration relate to races or peoples and not to countries of origin. According to these, however, the proportion of children among German immigrants is distinctly above the average, 17 per cent, or more than one-sixth, of the German immigrant aliens entering the United States during the 12 fiscal years ending June 30, 1910, being children under 14 years of age, as compared 'with a corresponding percentage of 12.1 for all races or peoples. This large percentage of children is un-
questionably to a considerable extent responsible for the substantially higher percentage reporting Germany as country of birth among the deaf-mutes who returned schedules than in the total foreign-born white population. Similarly, the high percentage of deafmutes who reported Russia as country of birth is undoubtedly due to the extremely high percentage of children ( 24.9 per cent, or practically one-fourth, in the 12 years ending June 30,1910 ) among the Hebrews, who constitute the most important element in the immigration from that country; there is, however, reason for believing that the returns for deaf-mutes born in Russia may be somewhat more complete than those for some other nationalities, on account of the large Russian Jew population in New York City, where there are some large institutions for the deaf which sent in schedules for the great majority of their pupils. While statistics as to the age of the immigrants from Canada are not available, it is practically certain that they comprise a large number of children; moreover, relatively more adult deaf-mutes probably make the short land journey ordinarily involved in migration from Canada to the United States than take the long sea voyage required of immigrants from European countries. In contrast to the immigration from the countries just mentioned may be instanced that from Ireland and Italy, only 5.2 per cent of the Irish immigrants during the period 1899-1910, and only 11.2 per cent of the Italian, being children under 14, a fact which perhaps explains why these countries contributed only about half as many relatively to the deaf and dumb returning schedules in 1910 as to the total foreign-born white population.

## AGE.

Table 17 shows the age distribution of the deaf and dumb population for whom special schedules were returned at the census of 1910, in comparison with the corresponding distribution of the total population.
The principal peculiarity distinguishing the age distribution of the deaf and dumb returning schedules from that of the total population is the much smaller proportion of children among the former as compared with the latter. Of the deaf-mutes for whom schedules were returned only 24.7 per cent, or about one-fourth, were under 15 years of age, as compared with 32.1 per cent, or a little less than one-third, in the general population. In particular, only 1.6 per cent of the deaf and dumb represented in the tabulation were less than 5 years old, although the corresponding proportion for the general population was 11.6 per cent, or more than one-tenth. The main reason for this smaller proportion of children among the deaf and dumb lies of course in the circumstance that loss of hearing at any time prior to the complete acquisition of the faculty of articulate speech, which usually does not occur until the earlier years of the second quinquennium of life, will
ordinarily result in deaf-mutism, so that the number of deaf-mutes among persons born in any given year will not reach its maximum until about the middle of the first decade of life. The actual proportion of children among the deaf and dumb is, however, unquestionably somewhat larger than is shown in the table, as it is practically certain that any enumeration of the deaf and dumb in connection with the population census will always be seriously defective so far as the earliest years of life are concerned. This results from the fact that in a large proportion of cases of children born deaf or losing their hearing soon after birth some time elapses before the existence of deafness is recognized, and from the further fact that parents are always more or less reluctant to admit having defective children. ${ }^{1}$ It will, for example, be observed that schedules were received for only three children under 1 year of age, a number which, in view of the fact that deaf-mutism is very largely congenital in its origin, must obviously be very much below the true figure. It is furthermore probable that the deaf-mutes at the earliest ages do not have a representation in the population for whom schedules were returned that is commensurate even with their importance in the deaf and dumb population as enumerated. At the enumeration of the blind which was made at the same time as that of the deaf and dumb a much smaller number of schedules relatively were received for those at the earlier ages than for the adult blind, presumably because the parents or other relatives upon whom the return of the schedules for children was dependent took less interest in seeing that the schedules were returned than did the adult blind who received schedules, and it is probable that a similar situation existed in regard to the deaf and dumb.

After the age of 20 the percentages in the respective age groups for the deaf and dumb show on the whole a fairly close correspondence to those for the general population; the variations probably reflect mainly the influence of immigration upon the age distribution of the general population and differences in the percentages returning schedules at the different ages for the deaf and dumb. The proportions of old people are practically identical, the percentage 65 or over being

[^7]4.2 for the deaf-mutes returning schedules as compared with 4.3 for the general population. It is doubtful, however, if the deaf and dumb actually have as great an expectation of life as normal persons; for the small proportion of children among the former would naturally result in an increased percentage in the older age groups, and, as will be brought out more fully later (p. 49), statistics tend to show that the longevity of the deaf and dumb,-at least of those whose deafness is acquired, is in fact less than that of normal persons. In view of the fact, moreover, that the progress which has been made in the teaching of speech to the deaf has occurred mainly within the last three decades, it is probable that the deaf-mutes omitted by the enumerators for the reason that they had been taught to speak and hence were not regarded as dumb fell mainly in the earlier age groups, a circumstance which would further have contributed to raise the percentage at the later ages.

| Table 17\% ${ }^{\text {The }}$ (GROUP. | DEAF AND DUMB POPU- <br> LATION FOR WHOM <br> SPECLAL <br> WCEEDULES <br> WERE RETURNED: <br> 1910. |  | Per cent distribution of total population: 1910. |
| :---: | :---: | :---: | :---: |
| Total. | 19,153. |  |  |
| Age reported | 19,126 | 100.0 | 100.0 |
| Under 5 years. | 303 | 1.6 | 11.6 |
| Under 1 year | 3 | (1) | 2.4 |
| 1 to 4 years. | 300 | 1.6 | 9.2 |
| 5 to 9 years. . | 1,850 | 9.7 | 10.6 |
| 10 to 14 years. | 2,569 | 13.4 | 9.9 |
| 15 to 19 years. | 2,403 | 12.6 | 9.9 |
| 20 to 24 years. | 2,062 | 10.8 | 9.9 |
| 25 to 29 years. | 1,706 | 8.9 | 8.9 |
| 30 to 34 years. | 1,347 | 7.0 | 7.6 |
| 35 to 39 years. | 1,517 | 7.9 | 7.0 |
| 40 to 44 years. | 1,344 | 7.0 | 5.7 |
| 45 to 49 years. | 1,251 | 6.5 | 4.9 |
| 50 to 54 years. | 899 | 4.7 | 4.2 |
| 55 to 59 years. | 603 | 3.2 | 3.0 |
| 60 to 64 years. ............. | 475 | 2.5 | 2.5 |
| 65 to 69 years. . | 388 | 2.0 | 1.8 |
| 70 to 74 years... | 207 | 1.1 | 1.2 |
| 75 to 79 years... | 122 | 0.6 | 0.7 |
| 80 to 84 years... | 48 | 0.3 | 0.4 |
| 85 years or over........... | 32 | 0.2 | 0.2 |
| Age not reported. | 27 |  |  |

1 Less than one-tenth of 1 per cent.
The median age of the deaf and dumb returning schedules was 26.1 years-that is, one-half were under 26.1 years of age, while one-half had passed that ageas compared with 24 years, or 2.1 years less, for the gencral population. In view of the relatively small percentage of children among the deaf and dumb, a somewhat higher median for this class than for the general population was of course to have been expected.

Owing to changes from census to census in the method and scope of the enumeration, figures showing the age distribution of the deaf and dumb at the different censuses are of uncertain comparability.

For purposes of reference, however, Table 18 shows the distribution at each census from 1860 to 1910. Comparative figures can not be given for censuses prior to 1860.

| Table 18 AGE GROUP. | deat and dumb population of the united states. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $1910{ }^{1}$ | 1900: | 1890 | 1880 | 1870 | 1860 |
| Total................. | NUMBER. |  |  |  |  |  |
|  | 19,153 | 24,369 | 40,592 | 33.878 | 16,205 | 12,821 |
| Under 5 years. | 303 | 858 | 940 | 941 | 407 | 474 |
| Under 1 year | 3 | (3) | (3) | 30 | 12 | 14 |
| 1 to 4 years. | 300 | (3) | (3) | 911 | 395 | 460 |
| 5 to 9 years... | 1,850 | 2,658 | 4, 466 | 4,253 | 2, 051 | 1,583 |
| 10 to 14 years. | 2,569 | 3,253 | 5,224 | 5,337 | 3, 037 | 2.210 |
| 15 to 19 years. | 2,403 | 3,058 | 5,681 | 5, 020 | 2,560 | 2.124 |
| 20 to 39 years. | 6,632 | 8,609 | 13,941 | 10,526 | 5, 056 | 3,882 |
| 40 to 59 years. | 4,097 | 4,329 | 6,672 | 4,906 | 2,194 | 1,892 |
| 60 years or over. | 1,272 | 1,481 | 3,152 | 2,895 | 845 | 623 |
| Age not reported. | 27 | 123 | 516 |  | 55 | 33 |
|  | PER CENT DISTRIBUTION. |  |  |  |  |  |
| Totsl......... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Under 5 years | 1.6 | 3.5 | 2.3 | 2.8 | 2.5 | 3.7 |
| Under 1 year | (5) | $\left.{ }^{3}\right)$ | (3) | 0.1 | 0.1 | 0.1 |
| 1 to 4 years.. | 1.6 | (3) | (3) | 2.7 | 2.4 | 3.6 |
| 5 to 9 years.... | 9.7 | 11.0 | 11.1 | 12.6 | 12.7 | 12.4 |
| 10 to 14 years. | 13.4 | 13.4 | 13.0 | 15.8 | 18.8 | 17.3 |
| 15 to 19 years. | 12.6 | 12.6 | 14.2 | 14.8 | 15.9 | 16.6 |
| 20 to 39 years. | 34.7 | 35.5 | 34.8 | 31.1 | 31.3 | 30.4 |
| 40 to 59 years. | 21.4 | 17.9 | 16.6 | 14.5 | 13.6 | 14.8 |
| 60 years or over. | 6.7 | 6.1 | 7.9 | 8.5 | 5.2 | 4.9 |

1 Deaf and dumb for whom special schedules were returned only. 2 Deaf persons unable to speak at all for whom special schedules were returned. : Separate figures not available.

- Based upon the population whose age was reported.

5 Less than one-tenth of 1 per cent.
Table 19 shows the median age of the deaf and dumb population as reported at each census from 1860 to 1910 , inclusive, in comparison with that of the total population.

| Table 19 | YEAR. | MEDIAN AGE OF THE POPULATION OFTHE UNITED STATES. ${ }^{1}$ |  |
| :---: | :---: | :---: | :---: |
|  |  | Total. | Deaf and dumb. |
| 1910. |  | 24.0 | 226.1 |
| 1900. |  | 22.9 | 325.1 |
| 1890. |  | 21.4 | 23.9 |
| 1880. |  | 20.9 | 21.6 |
| 1870 |  | 20.1 | 20.1 |
| 1860. |  | 19.4 | 20.0 |

1 Based upon the population whose age was reported.
, Deaf and dumb for whom special schedules were returned only.
${ }^{2}$ Deaf persons unable to speak at all for whom special schedules were returned.
The median age of the deaf and dumb population increased from 20 years in 1860 to 26.1 years in 1910, or about 6 years, as compared with an increase of 4.6 years in the median age of the general population.

The increase in the median for the general population is probably due to a combination of causes, such as a general increase in longevity, a decline in the birth rate, and the increasing age of the population of foreign birth or parentage. The same causes have also in all likelihood contributed to bring about the increase in the median for the deaf and dumb. The fact, however, that the increase is greater for deaf-mutes than for the general population suggests that other causes may enter in. In particular, it seems not improbable, in view of the increased control of the communicable diseases which are responsible for most of the acquired deaf-mutism, that fewer persons relatively are becoming deaf-mutes now than in the past, so that the persons making up the deaf and dumb population represent to an increasingly greater extent the survivors from earlier years. If, moreover,' as would naturally be expected, this improvement in the control of communicable diseases has resulted in a reduction of the relative amount of acquired, as compared with congenital, deaf-mutism, this fact would probably cooperate further to bring about an increase in the age of the deaf and dumb, for the reason that the statistics in regard to age when hearing was lost tend strongly to indicate that the adventitiously deaf are shorter-lived than the congenitally deaf (see p. 49). This latter circumstance would furthermore explain in large measure the slight difference between the medians for the total and the deaf and dumb population at the earlier censuses covered by the table, the influence of the smaller proportion of children reported among the deaf and dumb being counteracted by the lesser longevity of the adventitious deaf-mutes. In connection with the increase in 1910, as compared with 1860 , in the median for the deaf and dumb, however, it should be stated that the median for 1910 may be somewhat above the true figure by reason of the omission of deaf-mutes who had learned to speak, who, as already pointed out, would be mainly at the younger ages.
Table 20 presents statistics regarding the age distribution of the deaf and dumb population in the principal foreign countries for which figures regarding age are available. For some countries it has been necessary to employ a grouping somewhat different from that for most of the countries included; in these cases the grouping employed has been indicated by means of a footnote.

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{Table 20 country.} \& \multirow[b]{2}{*}{Year.} \& \multicolumn{9}{|c|}{deaf and dumb population.} <br>
\hline \& \& Total. \& Under 5 years of ago. \& 5 to 9 years of age. \& 10 to 14 years of age. \& 15 to 19 years of age. \& 20 to 39 years of age. \& 40 to 59 years of age. \& 60 years of age or over. \& Age not reported. <br>
\hline \multicolumn{2}{|l|}{} \& \multicolumn{9}{|c|}{nomber.} <br>
\hline Canade \& \& \& \& (1) \& \& (1) \& 1,494 \& \& 605 \& <br>
\hline \multicolumn{11}{|l|}{} <br>
\hline Continental United States ${ }^{2}$ - \& 1910 \& 19, 153 \& 303 \& 1,850 \& 2,569 \& 2,403 \& 6,632 \& 4,097 \& 1,272 \& 27 <br>
\hline Hawail \& 1510 \& 756 \& 14 \& 124 \& 145 \& 161 \& 214 \& 70 \& 28 \& <br>
\hline \multicolumn{11}{|l|}{Europe.} <br>
\hline Bulgaria. \& 1905 \& 4,098 \& 88 \& 505 \& 463 \& 602 \& 1,605 \& 585 \& 250 \& <br>
\hline Denmari ${ }^{3}$. \& 1911 \& 1,793 \& 44 \& 127 \& 218 \& 187 \& 664 \& 358 \& 181 \& 14 <br>
\hline Eninland and Wales ${ }^{\text {a }}$ \& ${ }_{1900}^{1911}$ \& 15,122
3,474 \& 318
26 \& 1,340
189 \& 1,648
320 \& 1,239 \& ${ }^{6} 6,614$ \& ${ }^{6} 3,073$ \& ${ }^{5} 819$ \& <br>
\hline France. \& 1911 \& 21,823 \& ${ }^{6} 681$ \& - 3,449 \& (6) \& ${ }_{6} \mathbf{3}, 386$ \& 6,664 \& 5, 132 \& 2,167 \& 344 <br>
\hline Germany. \& 1900 \& 48,750 \& 1,093 \& 4,244 \& 4,951 \& 4,780 \& 20,093 \& 9,345 \& 4,067 \& 177 <br>
\hline Prussia \& 1910 \& 34, 804 \& 920 \& 3,149 \& 3,595 \& 3,047 \& 11, 351 \& 8,723 \& 2,952 \& 67 <br>
\hline $\xrightarrow{\text { Saxany }}$ \& 1910 \& 2,440
25,445 \& $\begin{array}{r}68 \\ 8705 \\ \hline\end{array}$ \& \% ${ }^{7} 531$ \& (\%) \& 7642

3 \& $\begin{array}{r}7 \\ \hline\end{array}$ \& ${ }^{7} 347$ \& ${ }^{7} 61$ \& <br>
\hline Hungary.. \& 1900 \& 25,445
3,145 \& $\begin{array}{r}8705 \\ 35 \\ \hline\end{array}$ \& $\begin{array}{r}86,145 \\ \\ \\ \hline 191\end{array}$ \& ${ }^{(8)} 288$ \& 3,354 \& 9,749
1,074 \& 3,970 \& 1,479 \& 43 <br>
\hline Italy . \& 1901 \& 31,267 \& ${ }^{-1,364}$ \& 9 7,049 \& (9) \& - 13,786 \& (9) \& 9 7,900 \& ${ }^{\bullet} 1,059$ \& 109 <br>
\hline Netherlands. \& 1909 \& 2,305 \& \& 254 \& 299 \& ${ }^{283}$ \& 731 \& 448 \& 7234 \& <br>
\hline Russia (European) ${ }^{10}$ \& 1897 \& 109,556 \& ${ }^{1} 12,555$ \& (1) \& 130,084 \& (1) \& 43,107 \& 16,337 \& 7,289 \& 184 <br>
\hline Scotland. \& 1911 \& 2,369 \& 36 \& 265 \& 321 \& 222 \& 785 \& 519 \& ${ }_{2}^{220}$ \& <br>
\hline Serbia... \& 1900 \& 5,
5,299 \& 104
34 \& $\stackrel{4}{483}$ \& 602
440 \& 655
463 \& 1,857 \& 684
1,668 \&  \& <br>
\hline \multicolumn{11}{|l|}{Asta.} <br>
\hline Ceylon ${ }^{14}$ \& 1901 \& 2,578 \& 194 \& 348 \& 315 \& 400 \& 957 \& 306 \& 58 \& <br>
\hline India ${ }^{11}$ \& 1911 \& 199,891 \& 8,565 \& 28,951 \& 29,863 \& 24,292 \& 71,424 \& 27,533 \& 8,607 \& 656 <br>
\hline $\xrightarrow{\text { Philippine Islands }}$ Rusia (Asiatic) ${ }^{14}$ \& ${ }_{1827}^{1903}$ \& 5,910 \& $\begin{array}{rrr}13 \\ 13,180 \\ 1 & 2,112\end{array}$ \& ${ }_{(1)}^{(13)}$ \& 13924
4
4 \& ${ }^{13} 1,267$ \& ${ }^{13} 1,704$ \& ${ }^{13665}$ \& ${ }^{13} 170$ \& <br>
\hline \& \multicolumn{4}{|c|}{Africa.} \& \& \& \& 2,089 \& \& <br>
\hline Union of South Africa... \& 1911 \& 2,398 \& 88 \& 271 \& 304 \& 344 \& 1,014 \& 275 \& \& 6 <br>
\hline Cape of Good Hope. \& 1911 \& 1,327 \& 45 \& 160 \& 188 \& 210 \& 520 \& 149 \& \& <br>
\hline Natal.. \& 1911 \& 298 \& 10 \& 34 \& 43 \& 48 \& 127 \& 30 \& 6 \& <br>
\hline Orange Free State. \& 1911 \& 274 \& 13 \& 32 \& 28 \& 37 \& 118 \& 35 \& 11 \& <br>

\hline Transvaal......... \& 1911 \& 499 \& 20 \& 45 \& 45 \& 49 \& 249 \& 61 \& 24 \& $$
6
$$ <br>

\hline \multicolumn{11}{|l|}{Australasta.} <br>
\hline Commonwealth of Australia ${ }^{15}$ \& 1911 \& 1,852 \& 36 \& 195 \& 316 \& 185 \& 627 \& 343 \& 124 \& <br>
\hline New South Wales. \& 1911 \& +640 \& 16 \& 59 \& 111 \& 64 \& 236 \& 110 \& \& 6 <br>

\hline South Australia. \& 1911 \& 246 \& 4 \& | 34 |
| :--- |
| 22 | \& 49

50 \& $\stackrel{23}{23}$ \& | 92 |
| :--- |
| 82 | \& 46

42 \& 6 \& 3
3
3 <br>
\hline Tasmania. \& 1911 \& 98 \& 3 \& 10 \& 15 \& 12 \& 34 \& 17 \& \& <br>
\hline Victoria.. \& 1911 \& 635 \& 7 \& 62 \& 75 \& 55 \& 150 \& 123 \& 52 \& 11 <br>
\hline Western Australia. \& 1911 \& 76 \& 1 \& 8 \& 16 \& 9 \& 33 \& 5 \& 3 \& 1 <br>
\hline \multicolumn{11}{|l|}{} <br>
\hline \& \& \multicolumn{9}{|c|}{fer cent of total. ${ }^{17}$} <br>
\hline \multicolumn{11}{|l|}{Amebica.} <br>
\hline Canada. \& 1911 \& 100.0 \& 112.3 \& (1) \& 118.7 \& (1) \& 32.8 \& 23.0 \& 13.3 \& <br>
\hline United States: \& \& \& \& \& \& \& \& \& \& <br>
\hline Continental United States ${ }^{2}$. \& 1910 \& 100.0 \& 1.6 \& \& 13.4 \& 12.6 \& 34.7 \& 21.4 \& 6.7 \& <br>
\hline Hawaii............... \& 1910
1910 \& ${ }^{(18)}{ }_{100.0}$ \& ${ }^{(18)} 1.9$ \& $\stackrel{(19)}{16.4}$ \& ${ }^{(18)} 192$ \& $\stackrel{(18)}{21.3}$ \& $\stackrel{(18)}{28.3}$ \& ${ }^{(18)} 9.3$ \& ${ }^{(18)} 3.7$ \& <br>
\hline \multicolumn{11}{|l|}{Euzope.} <br>
\hline Bulgaria. \& 1905 \& 100.0 \& 2.1 \& 12.3 \& 11.3 \& 14.7 \& 39.2 \& 14.3 \& 6.1 \& <br>
\hline Denmark ${ }^{\text {a }}$.......... \& 1911 \& 100.0 \& 2.5 \& 7.1 \& 12.3 \& 10.5 \& 37.3 \& 20.1 \& 10.2 \& . <br>
\hline England and Wales 4 \& 1911 \& 100.0 \& 2.1 \& 8.9 \& 10.9 \& 8.2 \& 643.7 \& 520.3 \& 55.9 \& <br>
\hline France... \& 1900 \& 100.0
100.0 \& 0.7
63.2 \& 5.4
016.1 \& \& 15.5
015.8 \& 41.4
31.0 \& 18.6 \& 9.0 \& <br>
\hline Germany. \& 1900 \& 100.0 \& 2.3 \& 8.7 \& 10.2 \& 9.8 \& 41.4 \& 19.2 \& 8.4 \& <br>
\hline Prussia. \& 1910 \& 100.0 \& 2.6 \& 9.1 \& 10.3 \& 8.8 \& 32.7 \& 23.0 \& 8.5 \& <br>
\hline Saxony. \& 1910 \& 100.0 \& 2.8 \& 721.8 \& ${ }^{(7)}$ \& 726.3 \& 732.4 \& ${ }^{7} 14.2$ \& 72.5 \& <br>
\hline Hungary.. \& 1900 \& 100.0
100.0 \& $\begin{array}{r}82.8 \\ { }^{8} 2.1 \\ \hline 8\end{array}$ \& 124.2
6.1 \& ${ }^{8} 9.2$ \& $\begin{array}{r}13.2 \\ 8.5 \\ \hline 8\end{array}$ \& 38.4
34.1 \& 15.6 \& $\begin{array}{r}5.8 \\ 17 \\ \hline\end{array}$ \& <br>
\hline Italy.... \& 1901 \& 100.0 \& 94.4 \& ${ }_{9} 22.6$ \& (9) ${ }^{\text {9 }}$ \& 8.5
944.2 \& (9) \& $\bigcirc 25.4$ \& 93.4 \& <br>
\hline Netherlands... \& 1909 \& 100.0 \& 2.4 \& 11.0 \& 13.0 \& 12.3 \& 31.7 \& 19.4 \& 10.2 \& <br>
\hline Russia (European) ${ }^{10}$ \& 1897 \& 100.0
100.0 \& $\begin{array}{r}111.5 \\ 1.5 \\ \hline\end{array}$ \& ${ }_{11}{ }_{1} 1.2$ \& 127.5
13.6
12. \& ${ }^{(1)} 9$ \& 39.4
33.2 \& 14.9
21.9 \& 6.7
9.3 \& <br>
\hline Sorbia... \& 1900 \& 100.0 \& 2.5 \& 10.7 \& 14.4 \& 15.7 \& 32.5 \& 16.4 \& 7.7 \& <br>
\hline 8weden.............. \& 1900 \& 100.0 \& 0.6 \& 5.3 \& 8.3 \& 8.7 \& 35.0 \& 31.5 \& 10.5 \& <br>
\hline
\end{tabular}

[^8]| Table 20-Continced. | Year. | dear and dumb population. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total. | Under 5 years of age. | $\underset{\text { years of }}{5 \text { to } 9}$ age. | 10 to 14 age. | 15 to 19 years of age. | 20 to 39 age. | 40 to 59 years of age. | 60 years of age or over. | Age not reported. |
|  |  | per cent of total. ${ }^{1}$ |  |  |  |  |  |  |  |  |
| Asta. |  |  |  |  |  |  |  |  |  |  |
| Ceylon 2 | 1901 | 100.0 | 7.5 | 13.5 | 12.2 | 15.5 | 37.1 | 11.9 | 2.2 | ....... |
| India ${ }^{2}$. | 1911 | 100.0 | 4.3 4020 | 14.5 | 15.0 | ¢ 12.2 | $\begin{array}{r}35.8 \\ \hline 28.8 \\ \hline\end{array}$ | $\begin{array}{r}13.8 \\ \mathbf{1 1 1 . 3} \\ \hline 18 .\end{array}$ |  |  |
| Philippine Isignds ${ }^{\text {R }}$ | 1989 <br> 197 | 100.0 100.0 | 620.0 614.2 | (6) | ${ }_{6} 87.5$ | ${ }^{(6)}$ | $\begin{array}{r}37.7 \\ \hline\end{array}$ | +14.0 | 6.6 |  |
| AFRICA. |  |  |  |  |  |  |  |  |  |  |
| Union of South Africa.. | 1911 | 100.0 | 3.7 | 11.3 | 12.7 | 14.4 |  |  |  |  |
| Cape of Good Hope. | 1911 | 100.0 100.0 | 3.4 3.4 | 12.1 | 14.2 14.4 | 15.8 16.1 | 39.2 42.6 | 11.2 10.1 | 4.1 |  |
| Orange Free State. | 1911 | 100.0 | 4.7 | 11.7 | 10.2 | 13.5 | 43.1 | 12.8 | 4.0 |  |
| Transvaal........... | 1911 | 100.0 | 4.1 | 9.1 | 9.1 | 9.9 | 50.5 | 12.4 | 4.9 | . |
| Adstralasia. |  |  |  |  |  |  |  |  |  |  |
| Commonwealth of Australia ${ }^{\text {a }}$. | 1911 | 100.0 | 2.0 | 10.7 | 17.3 | 10.1 | 34.3 | 18.8 | 6.8 |  |
| New South Wales.. | 1911 | 100.0 | 2.5 | 9.3 | 17.5 | 10.1 | 37.2 | 17.4 | 6.0 | ......... |
| Queensland. ${ }^{\text {South }}$ Anstraia. | 1911 | 100.0 100.0 | 1.6 | 13.4 9.1 | 19.3 20.6 | 9.1 | 36.2 33 | 17.3 | 8.4 |  |
| South Australia.. | 1911 |  | (8) | ${ }^{88}$ | ${ }^{8} 1$ | (8) |  | (8) |  |  |
| Victoria. | 1911 | 100.0 | 1.3 | 11.8 | 14.3 | 10.5 | 28.6 | 23.5 | 9.9 |  |
| Westorn Australia | ${ }_{1911}^{1911}$ | ${ }^{(8)} 100.0$ | ${ }^{(8)}$ | ${ }_{17}^{(8)}$ | ${ }^{(8)}{ }_{20.9}$ | ${ }^{(8)} 13.3$ | ${ }^{(8)}{ }_{26.9}$ | ${ }^{(8)} 15.6$ | ${ }^{(8)} 4.0$ | .-....... |
| New Zealand ${ }^{\text {... }}$ | 1911 | 100.0 |  |  |  |  |  |  |  |  |

1 In calculating these percentages, persons whose age was not reported have been excluded from the total.
2 Figures represent congenitally deaf and dumb only.
"Figures given are for age groups "'under 10, " "10 to 14 ," "15 to 24 ," " 25 to 44, " " 45 to 64 ," and " 65 or over," respectively.

- Caucasus, Siberia, and Central Asia.
- Figures given are for age groups "under 10 " and "10 to 19", respectively.

7 Exclusive of full-blooded aboriginals.

- Per cent not shown where base is less than 100.
- Exclusive of Maris and of population of annexed Pacific islands.

Table 21 shows, for the latest year for which figures $\mid$ population in those oountries for which figures are are at hand, the median age of the deaf and dumb
given in Table 20.

| Table 21 | Year. | Median age of deaf and dumb population. | COUNTRY. | Year. | Median age of deaf and dumb population. ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Ambrica. |  |  | AsIA. |  |  |
| Canads. | 1911 | 31.6 | Ceylon. | 1901 | 6 20.6 |
| United States: |  |  | India........ | 1911 | 821.7 |
| Continental United States. | 1910 | 226.1 | Philippine Islands ${ }^{7}$ | 1903 | 21.7 |
| Hawrili. | 1910 | 19.1 | Russia (Aslatic) ${ }^{\text {8 }}$... | 1897 | 23.4 |
| Porto Rico.... | 1910 | 18.0 |  |  |  |
| Europe. |  |  | Union of Sonth Africa | 1011 | 92 |
| Bulgaria. | 1905 | 23.7 | Cape of Good Hope. | 1911 | 21.7 |
| Denmary | 1911 | 29.6 | Natal...a........... | 1911 | 21.6 |
| England and Wales. | 1911 | 430.7 | Orange Free State. | 1911 | 23.4 |
| Finland.......... | 1900 | 26.5 | Transvasl. | 1911 | 26.0 |
| France........ | 1911 | 28.8 |  |  |  |
| Germany ...... | 1900 | 29.6 | AUStralasia. |  |  |
| Prussia.. | 1910 | 31.8 |  |  |  |
| Baxony. | 1910 | 29.5 | Commonwealth of Australia ${ }^{\text {D }}$ | 1911 | 25.1 |
| Hungary .... | 1900 | 24.1 34.2 | New South Wales.. Queensland | 1911 | 25.2 |
| Ireland...... | 1911 | 34.2 28.0 | Queensland. ${ }_{\text {South Australia... }}$ | 1911 | 23.4 |
| Netherlands. | 1809 | 28.7 | Tasmania... | 1911 | 24.7 |
| Russia (European) b | 1897 | 24.6 | Victoria.... | 1911 | 27.4 |
| Scotland ........... | 1911 | 27.5 | Western Australia. | 1911 | 21.5 |
| Serbia... | 1900 | 23.4 | New Zealand ${ }^{10}$. | 1911 | 18.7 |
| Eweden. | 1900 | 35.7 |  |  |  |

${ }^{1}$ Based upon the population whose age was reported.
1 Dead and dumb for whom special schedules were returned only.
: Exclusive of Faroe Islands.

- Figures include persons returned simply as dumb.
- Including Poland, but exclusive of Finland.

General Table 3 (p. 113) shows the age distribution of the deaf and dumb population for whom special schedules were returned in the different geographic divisions and states. Table 22 gives, for each division, the per cent distribution by age of the deaf and dumb for whom special schedules were returned, a somewhat broader grouping being employed than that used in General Table 3.

- Figures represent congenitally deal and dumb only.
${ }^{7}$ Civilized population.
- Caucasus, Siberia, and Central Asia.
${ }^{10}$ Exclusive of full-blooded aboriginals.
The age distribution of the deaf-mutes for whom schedules were returned differed widely in the several geographic divisions. In the East South Central division, for example, the proportion under 20 years of age was 47.6 per cent, or nearly one-half, while it exceeded two-fifths in the Middle Atlantic, West South Central, and South Atlantic divisions also; in the East North Central and New England divisions, on the
other hand, it was only a little more than one-fourth ( 27.5 and 27.4 per cent, respectively). It is extremely improbable that there are actually any such wide differences in the age distribution in the different divisions, and the variations shown in the table appear to reflect very largely variations in the degree of completeness with which schedules were returned for the deaf-mutes of school age. In some states all the inmates of schools for the deaf were enumerated at the institution, and in a number of cases the institutional authorities appear to have given special attention to seeing that the schedules were filled out and returned; whereas in other states either the pupils, with a very few exceptions, were not enumerated at the institution, or if they were enumerated there the institutional authorities made no effort to see that schedules were returned for them. Thus the exceptionally high percentage of children shown for the East South Central division is mainly due to the fact that 297 schedules were received for pupils at the state schools for the deaf in Kentucky and Tennessee, these schedules representing 15.9 per cent, or nearly one-sixth, of the total number received for the division. Similarly, the high
proportion for the Middle Atlantic division results to a great extent from the fact already mentioned that very full returns were received from the large institutions for the deaf in New York City, and a like explanation accounts in part for the high percentage for the South Atlantic division, although in this latter division the percentage of children in the general population is somewhat above the average. In New England, on the other hand, comparatively few schedules were received from institutions, and in at least one instance the pupils of a large school for the deaf were not reported as deaf and dumb by the enumerator, apparently because they had been taught to articulate. The situation is somewhat similar in the East North Central division, as in only one state in this division were any considerable number of schedules received from a state school. In view of these facts the age statistics for the different divisions and states in this report are of significance mainly as indicating the age composition of the population for whom schedules were returned and can not be regarded as necessarily reflecting the actual age distribution of the deaf-mutes in the respective areas.

Table 22

| AGE GROUP. | United States. | New England division. | Middile Atlantic division. | East North Central division. | West North Central division. | South Atlantic division. | East South Central division. | West South Central division. | Mountain division. | Pacific division. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total. | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Under 20 years. | 37.3 | 27.4 | 42.9 | 27.5 | 35.1 | 42.2 | 47.6 | 42.6 | 36.5 | 32.2 |
| Under 5 years. | 1.6 | 1.5 | 1.1 | 1.4 | 1.3 | 2.1 | 2.3 | 1.8 | 2.6 | 2.2 |
| 5 to 9 years... | 9.7 | 9.3 | 13.3 | 6.7 | 7.0 | 11.4 | 10.5 | 9.7 | 8.8 | 10.5 |
| 10 to 14 years. | 13.4 | 8.1 | 15.5 | 9.9 | 13.9 | 14.1 | 17.1 | 15.7 | 15.4 | 11.9 |
| 15 to 19 years. | 12.6 | 8.4 | 13.0 | 0.6 | 12.9 | 14.6 | 17.7 | 15.5 | 9.7 | 7.6 |
| 20 to 59 years.... | 56.1 | 59.5 | 49.8 | 65.0 | 59.0 | 52.1 | 47.7 | 53.0 | 60.1 | 62.8 |
| 20 to 29 years. | 19.7 | 15. 1 | 15.5 | 19.3 | 21.0 | 22.3 | 20.8 | 26.1 | 23.1 | 21.6 |
| 30 to 39 years. | 15.0 | 16.0 | 13.7 | 18.8 | 15.7 | 11.0 | 11.6 | 12.8 | 18. 5 | 20.0 |
| 40 to 49 years. | 13.6 | 15.9 | 13.5 | 17.7 | 14.3 | 10.9 | 8.9 | 8.8 | 11.7 | 14.7 |
| 50 to 59 years. . | 7.9 | 12.5 | 7.0 | 9.2 | 8.0 | 7.8 | 6.4 | 5.3 | 6.8 | 6.6 |
| 80 years or over... | 6.7 | 13.2 | 7.3 | 7.4 | 5.9 | 5.7 | 4.7 | 4.3 | 3.4 | 5.0 |
| 60 to 69 years. | 4.5 | 8.5 | 5.0 | 5.0 | 4.1 | 4.0 | 3.1 | 3.0 | 2.6 | 3.4 |
| 70 to 79 years.. | 1.7 | 3.1 | 1.9 | 2.0 | 1.5 | 1.3 | 1.3 | 1.1 | 0.9 | 1.6 |
| 80 years or over.. | 0.4 | 1.5 | 0.4 | 0.4 | 0.3 | 0.4 | 0.2 | 0.2 |  |  |

I Based upon the population whose age was reported.

Table 23, on the following page, shows the per cent distribution, by broad age groups, of the male and female deaf and dumb population in 1910 for whom special schedules were returned in comparison with that of the general population, and also the number of males per 100 females in each group for the deaf and dumb returning schedules and the general population, respectively. The absolute numbers upon which the percentages for the deaf and dumb population are based are given in General Table 5 (p. 118).

As would be expected, there is no very pronounced difference in the age distribution of the two sexes among the deaf-mutes. The proportion of old people 60 years of age or over was somewhat greater among females than among males ( 7 per cent as compared with 6.3 per cent); on the other hand, the proportion
of children and of persons in the early or middle years of adult life was slightly larger in the case of males. These differences are probably due mainly to the greater longevity of females, as a result of which they include a larger number relatively of persons at the later ages than is the case with males.

For the deaf and dumb returning schedules the ratios of males to females among those under 20 years of age and from 20 to 59 years of age were practically identical (122.2 and 122.5 per 100, respectively). The ratios for the several age groups under 20 years also show on the whole a fairly close correspondence, but those for the 10 -year groups comprising the years of early and middle adult life show some wide variations, for which it is difficult to account on any other hypothesis than that they are the result of acci-
dent or errors in age returns. Among those 60 years of age or over, however, the ratio of males to females was, by reason of the greater longevity of females, much lower than at the earlier ages, being only 109.6 to 100 ; the number decreased with each successive age group, until among those 80 years of age or over there was an excess of females.

| Table 23AGE GROUP. | PER CENT DISTRIBUTION OF POPULATION of the UNITED STATES: 1910. ${ }^{1}$ |  |  |  | NUMBER OF MALESPER 100 FEKALES: 1910. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total. |  | Deaf and dumb for whom special schedules were returned. |  | Total population. | Deal and dumb for whom special schedules were returned. |
|  | Male. | Female. | Male. | Female. |  |  |
| Total. | 100.0 | 100.0 | 100.0 | 100.0 | 106.0 | 121.5 |
| Under 20 years.... | 41.2 | 42.9 | 37.4 | 37.1 | 101.6 | 122.2 |
| Under 5 years... | 11.4 | 11.8 | 1.6 | 1.6 | 102.5 | 118.0 |
| 5 to 9 years..... | 10.4 | 10.8 | 9.7 | 9.7 | 101.8 | 121.6 |
| 10 to 14 years... | 9.7 | 10.1 | 13.4 | 13.5 | 102.1 | 120.3 |
| 15 to 19 years... | 9.6 | 10.2 | 12.7 | 12.3 | 99.8 | 125.4 |
| 20 to 59 years....... | 52.1 | 50.3 | 56.3 | 55.8 | 109.8 | 122.5 |
| 20 to 29 years.... | 18.7 | 18.9 | 20.1 | 19.2 | 104.9 | 127.3 |
| 30 to 39 years.... | 14.9 | 14.2 | - 14.5 | 15.6 | 110.7 | 113.1 |
| 40 to 49 years .-. | 10.9 | 10.2 | 13.5 | 13.6 | 113.1 | 120.3 |
| 50 to 59 years.... | 7.6 | 6.9 | 8.2 | 7.4 | 116.5 | 133.6 |
| 0 years or over..... | 6.7 | 6.8 | 6.3 | 7.0 | 104.2 | 109.6 |
| 60 to 69 years.... | 4.3 | 4.3 | 4.4 | 4.7 | 108.1 | 114.1 |
| 70 to 79 years...- | 1.9 | 2.0 | 1.6 | 1.9 | 100.5 | 103.1 |
| 80 years or over.. | 0.5 | 0.6 | 0.4 | 0.5 | 88.1 | 90.5 |

General Table 4 (p.116) shows for each geographic division the age distribution of the deaf and dumb for whom special schedules were returned in 1910, classified according to race and nativity. In Table 24 the age distribution of each class is given by percentages for the United States as a whole.

| Table 24 <br> AGE GROUP. | PER CENT DISTRIBUTION OF DEAF AND DUMB POPULATION OF THE UNITED STATES FOR WHOM SPECLAL sCHEDULES WERE RETURNED: 1910. 1 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | All <br> classes. | White. |  |  | Negro. |
|  |  | Total. | Native. | Foreignborn. |  |
| Total........... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Under 20 years. $\qquad$ <br> Under 5 years. $\qquad$ <br> 5 to 9 years. $\qquad$ <br> 10 to 14 years. $\qquad$ <br> 15 to 19 years. | 37.3 | 37.1 | 39.0 | 20.9 | 40.1 |
|  | 1.6 | 1.6 | 1.8 | 0.2 | 0.8 |
|  | 9.7 | 9.8 | 10.4 | 48 | 7.3 |
|  | 13.4 | 13.3 | 13.9 | 7.7 | 16.4 |
|  | 12.6 | 12.4 | 12.9 | 8.1 | 15.6 |
| 20 to 59 years. | 56.1 | 56.1 | 54.9 | 66.8 | 55.4 |
| 20 to 29 years. . . ............. <br> 30 to 39 years. | 19.7 | 19.4 | 19.9 | 14.9 | 24.6 |
|  | 15.0 | 15.0 | 14.6 | 18.8 | 13.8 |
| 30 to 39 years.... | 13.6 | 13.8 | 12.8 | 22.4 | 10.3 |
| 50 to 59 years................ | 7.9 | 7.9 | 7.6 | 10.7 | 6.6 |
| 60 years or over. | 6.7 | 6.8 | 6.1 | 12.3 | 4.5 |
| 60 to 69 years | 4.5 | 4.6 | 4.2 | 8.3 | 2.3 |
|  | 1.7 | 1.7 | 1.6 | 2.9 | 1.7 |
| 80 years or over............... | 0.4 | 0.4 | 0.3 | 1.1 | 0.6 |

1 Based upon the population whose age was reported. Per cent distribution of "Other colored" not shown, as base is less than 100.

As would be expected, the foreign-born white deafmutes are much older than those belonging to either of the native classes. Only 20.9 per cent, or one-fifth, of the deaf-mutes in this class who returned schedules were less than 20 years of age, while for the native whites and the Negroes the proportion was almost twice
as great; the proportion 60 years of age or over andong the foreign-born whites, on the other hand, was 12.3 per cent, or about one-eighth, as compared with only 6.1 per cent in the case of the native whites and 4.5 per cent in the case of the Negroes. The distribution of the native whites and the Negroes by broad age periods is approximately the same, the proportion under 20 years of age being slightly smaller and the proportion 60 years of age or over slightlylarger for the former class than for the latter. When the detailed distribution is compared, however, certain differences appear, the native whites comprising a larger proportion of young children and of persons between the ages of 30 and 70 and a smaller proportion of persons in the second and third decades of life and of very old people than the Negroes. These differences in age are explained in part by the differences in the age constitution of the several classes in the general population; but that this is not a complete explanation is made evident by the circumstance that among the deaf and dumb the proportion of children 5 to 9 years of age is higher and the proportion of old people 70 years of age or over lower for native whites than for Negroes, whereas in the general population the reverse is the case. In this connection account must be taken of the possibility that the degree of completeness in the returns for the different ages may vary much more widely for some races than for others, a factor which would be most likely to influence the figures for the earliest and latest age groups. In particular, it seems very probable that the much higher proportion of children 5 to 9 years of age shown for the native whites as compared with the Negroes is due to a much more complete return of children of this age for the former class than for the latter; as has already been stated, a number of institutions for the deaf appear to have made special efforts to see that schedules were sent in for their pupils, most of these institutions being in states where Negroes formed a relatively small proportion of the population and consequently having few, if any, Negro pupils, or else, if in states with a large Negro population, receiving white pupils exclusively.

Table 25 gives the median age of the deaf and dumb population in 1910 for whom special schedules were returned, classified according to race, nativity, and sex, in comparison with that of the total population.

The median age of the foreign-born whites was practically the same for the deaf and dumb as for the total population ( 37.6 and 37.1 years, respectively), and in the case of the deaf and dumb was about 12 years greater than that for the other race and nativity classes. The median age of the deaf and dumb was lowest (23.3 years) among the Negroes, while among the native whites it was 25 years; the figure in both cases was somewhat higher than that for the general population of the same race and nativity. The median for the "Other colored" was the same as that for the native whites.

| Table 25 <br> race and nativity. | median Age: 1910. ${ }^{1}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total population of the United States. |  |  | Deaf and dumb for whom special schedules were returned. |  |  |
|  | Both sexes. | Male. | Female. | Both sexes. | Male. | Female. |
| All classes. | 24.0 | 24.6 | 23.5 | 26.1 | 25.7 | 28.5 |
| White. | 24.4 | 24.9 | 23.9 | 26.3 | 26.0 | 26.8 |
| Native. Foreign-born. | $\begin{aligned} & 21.4 \\ & 37.1 \end{aligned}$ | $\begin{aligned} & 21.5 \\ & 36.7 \end{aligned}$ | 21.3 37.6 | 25.0 37.6 | 24.8 37.1 | 25.4 38.4 |
| Colored. | 21.0 | 21.5 | 20.6 | 23.5 | 23.2 | 23.8 |
| Negro......... | 20.8 26.3 | 21.1 29.0 | 20.6 19.8 | 23.3 25.0 | 23.0 25.6 | 23.8 24.4 |

${ }^{1}$ Based upon the population whose age was reported.
While a comparison of the age distribution of the total deaf and dumb population with that of the general population without distinction of race or nativity has little value in connection with the question of the longevity of the deaf and dumb on account of the disturbing influence of immigration upon the age distribution of the general population, some light may be obtained on this subject by making such a comparison for the native classes. Table 26 therefore compares the per cent distribution by age in 1910 of the general population and the deaf and dumb returning schedules for the native whites and the Negroes. The comparison is limited to those 10 years of age or over, for the reason that after that age few people become deaf-mutes and also because there is ground for the belief that the degree of completeness in the returns for the races may vary somewhat more widely in the case of children under 10 than for the later ages.

|  | per cent distribution of population of the unted states 10 years of AGE OR OVER: 1010.1 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Native white. |  | Negro. |  |
|  | Total. | Deaf and dumb for whom special schedule were returned. | Total. | Deaf and dumb for whom special schedules returned. |
| 10 years or over.................... | 100.0 | 100.0 | 100.0 | 100.0 |
| 10 to 14 years. <br> 15 to 19 years. <br> 20 to 24 years. | 14.9 | 15.8 | 15.9 | 17.8 |
|  | 14.3 | 14.7 | 14.6 | 17.0 |
|  | 12.9 11.0 | 12.6 | 14.1 | 16.3 10.5 |
|  | 11.0 |  | 12.1 | 10.5 |
| 30 to 34 years. 35 to 39 years. 40 to 44 years. 45 to 49 years. | 9.4 | 7.8 | 9.2 | 7.1 |
|  | 8.5 | 8.9 | 8.7 | 8.0 |
|  | 6.8 | 7.6 | 6.2 | 8.6 |
|  | 5.7 | 7.0 | 5.3 | 4.7 |
| 50 to 54 years. . 55 to 59 years.. 60 to 84 years. 0 to 69 years. | 5.2 | 5.2 | 4.5 | 5.3 |
|  | 3.7 | 3.5 | 2.9 | 1.8 |
|  | 2.8 | 2.7 | 2.6 | 1.3 |
|  | 2.1 | 2.1 | 1.7 | 1.1 |
| 70 to 74 years. . <br> 75 to 79 years. <br> 80 to 84 years. <br> 85 years or over | 1.4 | 1.1 | 1.1 | 1.1 |
|  | 0.8 | 0.7 | 0.6 | 0.7 |
|  | 0.4 | 0.2 | 0.4 | 0.3 |
|  | 0.2 | 0.1 | 0.3 | 0.3 |

${ }^{1}$ Based upon the population whose age was reported.

Both among the native whites and the Negroes the proportion of old people 60 or over is higher in the general population 10 years of age or over than among the deaf and dumb of the same age, the percentages being 7.7 and 6.9 , respectively, for the former class and 6.6 and 4.9 , respectively, for the latter. The figures thus suggest that the deaf and dumb do not have so great an expectation of life as those who possess their normal faculties, although, owing to the incompleteness of the returns for the former class, a certain amount of caution should be exercised in making any deductions. (For a further discussion of this subject, see section on age when hearing was lost, p. 49.)

General Table 5 (p. 118) shows for the United States as a whole the age distribution of the deaf and dumb in 1910 for whom special schedules were returned,' classified according to race and nativity, with distinction of sex. Table 27 gives the per cent distribution by age of the male and female deaf and dumb for whom schedules were returned in each of the main race and nativity classes.

| Table 27 <br> AGE GROUP. | PER CENT DISTRIBUTION OF DEAF AND DUMB POPGLATION OF THE UNITED STATES FOR WHOM SPECLAL SCHEDULES WERE RETURNED: 1910. ${ }^{1}$ |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | All classes. |  | White. |  |  |  | Negro. |  |
|  | Male. | Female. | Native. |  | Foreign-born. |  | Male. | $\begin{aligned} & \text { Fe- } \\ & \text { male. } \end{aligned}$ |
|  |  |  | Male. | Female. | Male. | Fe male. |  |  |
| Total......... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Under 20 years... Under 5 years 5 to 9 years... | $\begin{array}{r} 37.4 \\ 1.6 \\ 9.7 \\ 13.4 \\ 12.7 \end{array}$ | 37.1 | 38.9 | 39.0 | 23.0 |  | 40.7 | 39.3 |
|  |  | 1.6 | 1.8 | 1.8 | $0.4$ |  | 0.9 | 0.6 |
|  |  | $\begin{array}{r} 9.7 \\ 13.5 \end{array}$ | 10.3 | 10.4 | 5.3 | - 4.2 | 7.6 | 7.0 |
| 10 to 14 years. . |  |  | 13.1 | 12.7 | 8.5 | 6.7 | 17.1 | 15.5 |
| 15 to 19 years. |  | 12.3 |  |  | 8.7 | 7.3 | 15.2 | 16.1 |
| 20 to 59 years. | $\begin{aligned} & 56.3 \\ & 20.1 \end{aligned}$ | 55.8 | 55.3 | 54.5 | 65.3 | $\begin{aligned} & 68.7 \\ & 15.5 \end{aligned}$ | 55.3 | 55.5 |
| 20 to 29 years. |  | 19.2 | 14.1 | $\begin{aligned} & 19.2 \\ & 15.2 \end{aligned}$ | $\begin{aligned} & 14.4 \\ & 18.4 \end{aligned}$ |  | 24.8 | 24.4 |
| 30 to 39 years. | $\begin{aligned} & 14.5 \\ & 13.5 \\ & 13.5 \end{aligned}$ |  |  |  |  | $\begin{array}{r} 15.5 \\ 19.3 \end{array}$ | 13.1 |  |
| 40 to 49 years. |  | $\begin{array}{r} 13.6 \\ 7.4 \end{array}$ | $\begin{array}{r} 13.0 \\ 7.8 \end{array}$ | 12.67.4 | 20.412.0 | 24.89.1 | 9.77.8 | 11.2 |
| 50 to 59 years. . | 8.2 |  |  |  |  |  |  | 5.2 |
| 60 years or over. | 6.3 <br> 4.4 <br> 1.6 <br> 0.4 | $\begin{aligned} & 7.0 \\ & 4.7 \\ & 1.9 \\ & 0.5 \end{aligned}$ | $\begin{aligned} & 5.9 \\ & 4.1 \\ & 1.4 \\ & 0.3 \end{aligned}$ | $\begin{aligned} & 6.5 \\ & 4.3 \\ & 1.8 \\ & 0.4 \end{aligned}$ | $\begin{array}{r} 11.7 \\ 7.8 \\ 2.8 \\ 1.2 \end{array}$ | $\begin{array}{r} 13.0 \\ 8.9 \\ 3.0 \\ 1.1 \end{array}$ | 4.02.11.70.2 | 5.22.51.71.0 |
| 60 to 69 years. |  |  |  |  |  |  |  |  |
| 70 to 79 years. |  |  |  |  |  |  |  |  |
| 80 years or over |  |  |  |  |  |  |  |  |

"Based upon the population whose age was reported. Per cent distribution of "Other colored" not shown, as bases are less than 100.

The most pronounced difference in the age distribution of the two sexes is shown for the foreign-born whites, among whom the percentage under 20 was substantially higher for males than for females and the percentage in each of the two broad periods into which adult life is divided, lower. The higher percentage of old people among females may be due in part to their greater longevity; but it is difficult to believe that so wide a difference between the sexes in respect to the proportion of children actually exists. It appears likely that the age distribution of the foreign-born white deaf-mutes for whom schedules
were returned differs somewhat, for at least one of the sexes, from the actual age distribution of all foreignborn white deaf-mutes. Just why this should be so is, however, not easy to explain, although there is reason to believe that a larger number relatively of the male than of the female children in this class of the population were attending schools for the deaf, a circumstance which, in view of the fact that several institutions for the deaf made a very full return of the schedules sent out to their pupils, would cause the number of children for whom schedules were returned to be somewhat greater relatively among the males than among the females.

The native whites show practically no difference in the age distribution of the male and female deafmutes for whom schedules were returned, the proportions under 20 being practioally identical, the proportion from 20 to 59 slightly higher for males, and that 60 or over slightly higher for females. The differences for the Negroes are also not material; the proportion under 20 was somewhat larger and that 60 or over somewhat smaller for males than for females, while the proportions between 20 and 60 were practically the same.

## MARITAL CONDITION

Table 28 shows the distribution, according to marital condition, of the male and female deaf and dumb population 15 years of age or over for whom special schedules were returned, in comparison with that of the total population of the same age.

Of the deaf and dumb males 15 years of age or over in 1910 for whom schedules were received, less than one-third (31.8 per cent) were married, widowed, or divorced, and of the females only a little more than two-fifths (41.4 per cent). A comparison of these percentages with the corresponding proportions for the total population brings out clearly the extent to which their defect acts as a bar to the marriage of deaf-mutes, the percentage married, widowed, or divorced for males in the total population being nearly twice and that for females one and three-fourths times as great as among the deaf-mutes included in the tabulation. The differences between the two sexes among the deaf and dumb in respect to marital condition are of much the same character and due to much the same causes as those in the case of the general population. Thus the proportion who were or had been married at the
date of the census was somewhat higher for females than for males, in part because females as a rule marry earlier than males and in part because of the excess of males, as it is probable that in the great majority of cases deaf-mutes do not marry normal persons. ${ }^{1}$ Similarly the higher proportion of widowed among females than among males is mainly due to the fact that men usually marry at a later age than women, so that the marriage relation is more often broken by the death of the husband than by the death of the wife, while it is also probable that widowers remarry to a somewhat greater extent than widows.


1 Includes the small number whose age was not reported.
2 Based upon the population whose marital condition was reported.
Table 29 gives the distribution, according to marital condition, of the deaf and dumb population in the principal foreign countries for which statistics are available.

[^9]
${ }_{2}$ In calculating these percentages, persons whose marital condition was not reported have been excluded from the total.
${ }^{2}$ Includes only deaf and dumb returning special schedules.
${ }^{8} 4$ Ircludes all deaf and dumb persons reported as under 15 years of age.
4 Per cent not shown where base is less than 100 .
${ }^{5}$ Consensually married.
${ }^{6}$ Exclusive of Faroe Islands.
${ }_{8}^{7}$ Includes dear and dumb persons legally separated.
${ }_{8}^{8}$ Figures include persons returned simply as dumb.
${ }^{10}$ Divorced deaf and dumb reported separately.
io Divorced deaf and dumb persons are included with the widewed.
in The "not reported" class includes 1,982 males reported from institutions.
${ }_{13}$ Including Poland but oxclusize of Finland , and divorced was not reported separately.
14 The marital condition returns for the deaf and dumb differentiated only the married and the not married.
${ }^{16}$ Less than one-tenth of 1 per cent.
${ }_{16}^{16}$ Caucasus, Siberia, and Central Asia.
${ }^{18}$ The "not reported" class includes 2,329 females reperted frem institutions.

General Table 6 (p.119) shows, for each geographic division and state, the distribution according to marital condition of the male and female deaf and dumb population 15 years of age or over in 1910 for whom special schedules were returned.

General Table 7 (p. 120) distributes according to marital condition the male and female deaf and dumb population 15 years of age or over in 1910 for whom special schedules were returned in each race and nativity class. Table 30 shows the per cent distribution by marital condition for each race and nativity class.

Both for males and for females the proportion married, widowed, or divorced was higher for the foreign-born whites than for any other of the race and nativity classes shown in the table, which is due of course to the somewhat greater age of this class. The proportion among the Negroes, on the other hand, was strikingly low, less than one-sixth ( 15.2 per cent) of the males and less than one-fourth ( 22.9 per cent) of the females being married, widowed, or divorced, as compared with corresponding percentages of 32.9, or about one-third, and 42.5, or more than twofifths, for the whites. This wide difference between the percentages for the two races is probably to be explained by the fact that deaf-mute children are not sent to schools for the deaf to the same extent among the Negroes as among the whites and consequently suffer from a much greater handicap as regards matrimony through ignorance of the customary means of communication and lack of acquaintance with others of their class, and in the case of males
also by reason of their position of economic dependence.

| Table 30 <br> MARITAL CONDITION. | PER CENT DISTRIBUTION OF THE DEAF AND DUMB POPULATION 15 YEARS OF AGE OR OVER FOR WHOM SPECLAL SCHEDULES WERE RETURNED: 1910. ${ }^{1}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | All classes. | White. |  |  | Colored. 2 |  |
|  |  | Total. | Native. | Foreign- born. | Total. | Negro. |
| Total..................... | MALE. |  |  |  |  |  |
|  | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Single. <br> Married, widowed, or divorced. Married. | 68.2 | 67.1 | 67.8 | 62.2 | 85.0 | 84.8 |
|  | 31.8 | 32.9 | 32.2 | 37.8 | 15.0 | 15.2 |
|  | 29.4 | 30.5 | 29.9 | 34.9 | 12.7 | 12.9 |
| Widowed.................... | 2.0 | 2.0 | 2.0 | 2.4 | 2.4 | 2.3 |
| Divorced.......................... | 0.4 | 0.4 | 0.4 | 0.6 | ....... | $\cdots$ |
|  | female. |  |  |  |  |  |
| Total. | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Single. <br> Married, widowed, or divorced. | 58.6 | 57.5 | 58.2 | 52.0 | 76.1 | 77.1 |
|  | 41.4 | 42.5 | 41.8 | 48.0 | 23.9 | 22.9 |
| Married, widowed, or divorced. Married | 35.7 | 37.0 | 36.6 | 39.9 | 15.0 | 14.3 |
| Widowed Divorced. | 5.4 | 5.2 | 4.9 | 7.8 | 7.9 | 7.5 |
|  | 0.3 | 0.3 | 0.3 | 0.3 | 1.0 | 1.1 |

${ }^{1}$ Percentages are based upon the number whose marital condition was reported, including the small number whose age was not reported.
neluding the smail number whose age was not reported. as bases are less than 100 .
i Per cent distribution of "Other colored" not shown, as
General Table 8 ( $\mathbf{p} .120$ ) shows the distribution according to marital condition of the male and female deaf and dumb population 15 years of age or over in 1910 for whom special schedules were returned, by ago groups. In Table 31 the per cent distribution by marital condition for each sex is given for certain broad age groups in comparison with that of the total population of the same age and sex.


This table reveals the interesting fact that whereas both for males and females the percentage who were or had been married increases in the general population with each succeeding age group down to the latest ages, it shows a falling off in the latest age groups among the deaf and dumb. Among the male deafmutes who returned schedules the percentage married, widowed, or divorced was highest (55.6) in the case of those 45 to 54 years of age; for those from 55 to 64 years of age it was only 52 , and for those of 65 or over 51.7. The decrease in the latest age period is even more pronounced for females, for whom the percentage married, widowed, or divorced was highest (59.7) in the age group " 35 to 44 years," from which it declined to only 53.2 for those 65 or over. These figures would appear to indicate that deaf-mutes are marrying to a somewhat greater extent at the present time than in the past, as otherwise the percentage who were or had been married would have increased with increasing age. This seems in fact not improbable, as any increase in the relative number of deaf-mutes attending a school for the deaf, such as has in all likelihood taken place during recent years, would as a rosult of the increased facility of communication with others and greater economic independence obtained through the training received at such schools tend to encourage and increase matrimony among this class of the population. Moreover, while comparisons with prior censuses for the United States are of no value by reason of the changes from census to census in the scope of the statistics, such comparisons for foreign countries seem to show that there has actually been a very pronounced increase in the extent to which deaf-mutes marry. The figures for Prussia are especially striking in this connection. At the census of the deaf and dumb taken in that country in 1880, only 13 per cent of the males 15 years of age or over and 8.9 per cent of the females were or had been married, while 30 years later, at the census of 1910, the percentage for males had more than doubled, and that for females had about trebled, the figures being 29.8 and 26.2 , respectively. The much greater relative increase in the percentage for females accords with the figures in Table 31, where the decrease in the percentage married, widowed, or divorced in the later age groups is shown to be distinctly more pronounced for females than for males. This suggests that there has been a greater increase relatively in the education of female deaf-mutes than of males, as indeed appears to be the case.

## AGE WHEN HEARING WAS LOST.

Summary.-Table 32 shows the distribution, according to age when hearing was lost, of the deaf and dumb population of the United States for whom special schedules were returned.

Of the 19,153 deaf-mutes for whom special schedules were received, 7,533 , representing 39.3 per cent, or about two-fifths, of the total, stated that their deafness was
congenital. Of those whose deafness was acquired, by far the greater number ( 9,254 , representing 84.2 per cent, or somewhat more than five-sixths) lost their hearing during the first five years of life, this class in fact constituting nearly one-half (48.3 per cent) of all deaf-mutes for whom schedules were returned. Only 1,594 persons, or 8.3 per cent of the total number returning schedules, lost their hearing between the ages of 5 and 9 , and only 140 , or 0.7 per cent of the total, after reaching the age of 10 . The total number who reported that they became deaf after reaching the age of 8 , by which time the faculty of articulate speech is usually completely developed, was only 247. These were all persons who, probably by reason of their deafness, had entirely lost the power of speech as an effective means of communication, since, as already stated, a person who lost his hearing after reaching this age and was able to communicate effectively with others by means of speech, having presumably acquired the faculty of speech before he became deaf, was not, properly speaking, a deafmute, and therefore did not come within the scope of this report.

| Table 32 <br> age when hearing was LOST. | deaf and domb population for whom spectal SCHEDULES WERE RETURNED: 1910. |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total. |  | Male. |  | Female. |  | $\left\lvert\, \begin{gathered} \text { Males } \\ \text { per } 100 \\ \text { fe } \\ \text { males. } \end{gathered}\right.$ |
|  | $\begin{aligned} & \text { Num- } \\ & \text { ber. } \end{aligned}$ | $\left\|\begin{array}{c} \text { Per } \\ \text { Pent } \\ \text { distri- } \\ \text { bu- } \\ \text { tion. } \end{array}\right\|$ | $\begin{aligned} & \text { Num- } \\ & \text { ber. } \end{aligned}$ | $\begin{gathered} \text { Per } \\ \text { cent } \\ \text { distri- } \\ \text { bur- } \\ \text { tion. } \end{gathered}$ | $\begin{aligned} & \text { Num- } \\ & \text { ber. } \end{aligned}$ | $\begin{gathered} \text { Per } \\ \text { cent } \\ \text { centri- } \\ \text { distr- } \\ \text { bion. } \end{gathered}$ |  |
| Total. | 19,153 | 100.0 | 10,507 | 100.0 | 8,646 | 100.0 | 121.5 |
| Deafness congenital | 7,533 | 39.3 | 4,028 | 38.3 | 3,505 | 40.5 | 114.9 |
| Deafness acquired ${ }^{1}$ | 11,620 | 60.7 | 6,479 | 61.7 | 5,141 | 59.5 | 126.0 |
| At age ofLess than 5 years. | 9,254 | 48.3 | 5,160 | 49.1 | 4,094 | 47.4 | 126.0 |
| Less than 1 year. | 1, 628 | 8.5 | , 898 | 8.5 | 730 | 8.4 | 123.0 |
| 1 year........... | 2,375 | 12.4 | 1,325 | 12.6 | 1,050 | 12.1 | 126.2 |
| 3 years.. | 1,572 | $\begin{array}{r}13.6 \\ 8.2 \\ \hline\end{array}$ | $\begin{array}{r}1,433 \\ \hline 869\end{array}$ | 12.6 8.3 | ${ }^{1} 1.173$ | 12.6 8.1 8.1 | 122.2 123.6 |
| 4 years. | , 959 | 5.0 | 578 | 5.5 | 381 | 4.4 | 151.7 |
| $\begin{aligned} & \text { Infancy exact } \\ & \text { age not re- } \\ & \text { ported)........ } \end{aligned}$ | 114 | 0.6 | 57 | 0.5 | 57 | 0.7 | 100.0 |
| 5 to 9 jears........... | 1,594 | 8.3 | 907 | 8.6 | 687 | 7.9 | 132.0 |
| 5 years........... | 714 | 3.7 | 391 | 3.7 | 323 | 3.7 | 121.1 |
| 6 years. | 454 | 2.4 | 262 | 2.5 | 192 | 2.2 | 136.5 |
| 7 years........... | 319 | 1.7 | 194 | 1.8 | 125 | 1.4 | 155.2 |
| 88 years.......... | 73 | 0.4 | 41 | 0.4 | 32 | 0.4 | 128.1 |
| 10 years or over....... | 34 | 0.2 | 88 | 0.2 | 15 56 | 0.2 | 126.7 |
| At age not reported.... | 140 632 | 0.7 3.3 | $\begin{array}{r}84 \\ 328 \\ \hline\end{array}$ | 3.1 | 56 304 | 3.5 3.5 | 107.9 |

Among those who stated that their deafness was acquired, more persons lost their hearing during the third year of life than during any other single year, the number being 2,606 , or nearly one-seventh (13.6 per cent) of the total number returning schedules and not quite one-fourth (23.7 per cent) of the number whose deafness was acquired. Those who had lost their hearing in the second year of life ranked next in this respect, and those who lost it during their first year third, closely followed by those losing it in the fourth year. The number shows a steady decrease for each successive year of life after the third.

Extent of congenital deaf-mutism.-In connection with the statistics relating to age when hearing was lost presented in this and other tables it should be pointed out that figures showing the number whose deafness was congenital or was acquired during infancy, respectively, will always in all probability be more or less unreliable. The mechanism of hearing is so concealed from ordinary observation and the exercise of the various perceptive faculties is so largely a matter of training and experience that, barring the exceptional cases where some malformation or special pathological condition exists which makes it immediately apparent that the child has a defective auditory apparatus, it is practically impossible in the case of newly born infants to differentiate the deaf from those who have normal hearing by any means short of a special medical examination. As the parents naturally assume that a child is born in the possession of all its faculties, the existence of defective hearing is not usually suspected until the child reaches the age when most children begin to talk, ordinarily about the second year of life, or perhaps not even until it arrives at school age. This makes it possible for error in regard to the age when hearing was lost to arise in two ways. On the one hand, children who were actually born with normal hearing but lost it during infancy are likely to be regarded as congenitally deaf because so far as their parents have been able to perceive they have always been deaf; while, on the other hand, there will be a natural tendency, if the child has ever suffered from illness or accident, to attribute deafness to this cause, although as a matter of fact it was probably in many such instances congenital. ${ }^{1}$
Another circumstance affecting the accuracy of the returns as to the nature of the deafness is the fact that the impressions retained from the earliest years of life are at the best so fragmentary and imperfect that an adventitious deaf-mute may well believe that he was deaf from birth, and so state, when inquiry is made of him as to his age when he lost his hearing. In addition, the causes of deafness are in many cases so obscure that even a medical examination frequently fails to establish whether or not the cause existed at birth. Moreover, as congenital deaf-mutes are not exempt from diseases of the ear, the presence in the ear of morbid conditions resulting from ear disease which would of themselves tend to produce deafness is not of itself an absolute proof that deafness was

[^10]adventitious rather than congenital. By reason of all the various factors above mentioned a considerable degree of caution must be exercised in any use of figures purporting to show the number of cases where deafness originated respectively during the prenatal period and during the first years of life.

In this connection considerable interest attaches to the results obtained from one of the inquiries on the schedule which under a resolution adopted by the Bundesrat of the German Empire in 1901 must be filled out for every deaf-mute child reaching school age. This inquiry asked for the age at which the child's deafness was first noticed by those about him (zur Wahrnehmung der Umgebung gekommen); the statistics thus obtained for congenitally deaf-mute children of school age on January 1, 1902, or reaching school age between that date and June 30, 1905, inclusive, are given in Table 33.


It will be seen that more than one-half of the congenital deaf-mutes for whom figures are given had completed the first year of life before those about them had become aware of their deafness, while more than one-seventh had completed the second year. The average age when deafness was first noticed was 1.2 years. It is obvious that if the discovery that a child is deaf is postponed for this length of time there is room for considerable uncertainty as to whether or not deafness was actually congenital, especially as it is probable that there are numerous instances where no medical examination is made. So difficult, indeed, is any accurate segregation between the congenitally deaf and those losing their hearing after birth but during infancy that in the enumeration of the deaf and dumb in Germany made in connection with the census of 1900 the authorities made no attempt whatever to ascertain the number of cases of congenital deafness, but called merely for a statement on the schedule as to whether or not the person enumerated had been deaf "since earliest youth" (seit fruihester Jugend), this expression being intended to cover cases
where the defect had existed from infancy, or more specifically where hearing was lost prior to the completion of the second year of life. ${ }^{1}$

There is, however, no question but that a very large proportion of deaf-mutism is due to congenital causes, and the percentage of the deaf and dumb whose deafness, was reported as congenital is even higher for the foreign countries having statistics on this subject than it is for the United States. This is brought out 'by Table 34, which shows for those countries for which figures are available the number and percentage reported as congenitally deaf among the deaf and dumb in the latest year for which returns are at hand.

In every case the percentage reported as congenitally deaf is higher for the countries shown in the table than for the United States, although in the case of the percentage for the inmates of institutions for deafmutes in Austria the difference is only slight (0.9). Among those outside of institutions for deaf-mutes in Austria four-fifths were reported as congenitally deaf; among those enumerated in Germany at the population census of 1900 the proportion was estimated as three-fourths ( 75.8 per cent); and among those enumerated in Ireland at the census of 1911 the proportion was nearly as great ( 73.9 per cent). The most accurate figures are probably those for deaf-mute children of school age in Germany between January 1, 1902, and June 30, 1905, as the returns were in this case made out by physicians and were afterwards carefully revised so as to correct any apparent instances of improper classification. ${ }^{2}$ Of these children more than onehalf were stated to be congenitally deaf, the proportion being 50.4 per cent for those who had been admitted to institutions for deaf-mutes and 55.8 per cent for those who had not. Moreover, the proportion of the total number stating the age when hearing was lost who reported it as lost prior to the completion of the second year of life (including those born deaf) for the United States was only 62.3 per cent, or somewhat more than three-fifths, whereas in Germany at the cen-

[^11]sus of 1900 the proportion who were reported as deaf since earliest youth, which covers practically the same period of life, was 82.7 per cent, or about five-sixths. In view of these facts it seems doubtful whether the percentage shown for the United States in Table 32 is any above the true figure.

| Table 34 | Year. | DEAF AND DUMB POPOLATION. |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Total. | Congenitally deaf. |  |
|  |  |  | Number. | Per cent of total. |
| Austria: |  |  |  |  |
| In institutions for deaf-mutes. | 1908 | 1,788 | 718 | 40.2 |
| Outside institutions for deaf-mutes... | 1906 | 27,751 | 22,426 | 80.8 |
| Germany: <br> Population census |  | 145,554 |  |  |
| Population census. Children of school age in institutions | 1900 | ${ }^{1} 45,554$ | 2 34,549 | 75.8 |
| for deaf-mutes........................ | 1902-5 | 16,996 | 3,524 | 50.4 |
| Children of school age outside institutions for deaf-mutes. | 1902-5 | 1 1,192 | 665 | 55.8 |
| Ireland. | 1911 | 3,145 | 2,325 | 73.9 |

The reason for the low percentage congenitally deaf among deaf-mutes in the United States as compared with other countries, to which attention was also called in the report for $1890,{ }^{3}$ is not altogether easy to determine. The fact brought out by a later table (Table 45) that the percentage congenitally deaf is high for the Negroes, among whom the relative number of deaf-mutes is low, and low for the whites, among whom the relative number of deaf-mutes is comparatively high, tends to suggest that the relatively low percentage . congenitally deaf among the deaf-mute population of the United States taken as a whole is due to a relatively high frequency of adventitious deafness rather than to a relatively low frequency of congenital deafness, although allowance must be made for the fact that the returns as to age when hearing was lost are in all probability less reliable for Negroes than for whites. Such a high frequency of adventitious deafness would of course imply that the zymotic diseases which cause most of the acquired deaf-mutism are more prevalent in the United States than in the European countries for which figures are given. Whether this is actually the case can not be determined in the absence of complete mortality or morbidity statistics for the United States as a whole. It may, however, be pointed out that the available figures tend to show that cerebrospinal fever, which is perhaps the chief cause of acquired deaf-mutism, is somewhat more prevalent in the United States than in

[^12]Europe. The average annual death rate from cerebrospinal fever (Genickstarre), for example, in Germany during the two-year period 1910-11 was only 0.4 per 100,000 of the total estimated population, whereas the average annual reported death rate from cerebrospinal fever for the registration area of the United States for the same period, without including any estimate for cases comprised under the head of "cerebrospinal meningitis (undefined)" or "simple meningitis," was 0.7 per 100,000 , or nearly twice as great. ${ }^{1}$ On the other hand, the death rate from scarlet fever, the disease ranking next in importance as cause of deafness, appears to be lower for the registration area than for Germany and Austria, although higher than for Ireland, while the death rate from measles, also an important cause, is generally lower in the registration area than for the countries mentioned; but it is impossible to state whether the showing would be as favorable to the United States if figures were available for the country as a whole and the comparison could be made for individual age groups.
Another factor which may to some extent account for the low percentage of congenital deaf-mutism in the United States is the circumstance that its population comprises a large proportion of immigrants from other countries. Congenital deaf-mutism occurs to a very considerable extent in the offspring of consanguineous marriages, and such marriages are probably more frequent relatively in a population whose only growth is through natural increase than in one receiving large accessions from other countries. To put this in another way, of two countries which are alike as regards the incidence of the diseases causing adventitious deafness and which resemble each other in all essential respects, with the exception that the population of one is exclusively of native origin whereas that of the other comprises a large foreign element, the country comprising only native stock in its population should normally show the higher percentage of congenital deaf-mutism for the reason that the number of consanguineous marriages would probably be greater. In view of this fact, it seems highly probable that the large volume of immigration which the United States receives has been an influential factor in reducing the percentage of congenital deafmutism as compared with other countries.

Whether the proportion of congenital deaf-mutism is increasing or decreasing is a subject of considerable interest, but unfortunately the available statistics throw

[^13]no certain light on this question by reason of the changes from census to census in the application of the term "deaf and dumb." Such figures as are available are presented, however, in Table 35, which shows for each census from 1880 to 1910, inclusive, the percentage congenitally deaf among the deaf-mutes reporting.

| Table 35 | DEAF AND DUMB POPULATION OF THE UNITED STATES REPORTING AGE WHEN hearing was lost. |  |  |
| :---: | :---: | :---: | :---: |
|  | Total. | Reporting deafness as congenital. |  |
|  |  | Number. | Per cent of total. |
| $1910{ }^{2}$ | 18,407 | 7,533 | 40.9 |
| $1900{ }^{2}$. | 37,361 | 14,474 | 38.7 |
| $1890{ }^{3}$ | 37, 204 | 16,866 | 45.3 |
| 18804. | 22,473 | 12, 155 | 54.1 |

[^14]This table shows a distinct decrease in 1910 as compared with 1880 in the proportion of deaf-mutes in the United States whose deafness was reported as congenital. Of the deaf-mutes reporting age when hearing was lost in 1880, more than one-half ( 54.1 per cent) were reported as congenitally deaf, as compared with only two-fifths ( 40.9 per cent) in 1910, although, all other things being equal, an increase in the percentage would have been expeoted, by reason of the fact that deaf persons reported as having lost their hearing between the ages of 8 and 16 were included in 1880 but were excluded in 1910 unless they were totally deaf and without the power of speech as an effective means of communication. In particular, the fact that the percentage was lower in 1890, when only deaf persons who were unable to speak were included, than in 1880, when the figures included deaf-mutes who had been taught to speak, would seem to indicate that there had been an actual decrease in the proportion of congenital deafness, since normally a larger percentage of persons congenitally deaf, that is, who had lost their hearing before they had had an opportunity to acquire the faculty of speech, would be looked for in a group made up of persons who could not speak at all than in one including some who could speak. The statistics of certain institutions for the deaf also seem to show that there has been a decrease in the relative number of their pupils who were congenitally deaf. ${ }^{2}$
In spite of these facts, however, it would probably be well to exercise considerable reserve in accepting a decrease in the proportion of congenital deafness as an actually demonstrated fact. As compared with 1900, the percentage whose deafness was reported as congenital in 1910 shows a slight increase, and it is doubtful whether the element of incomparability in the figures for the two censuses was sufficient to

[^15]change an actual decrease in the percentage to an apparent increase. On the whole, there appears to be no very strong reason for believing that there has been during recent years any significant decrease in the relative amount of congenital deafness. A priori, an increase in the percentage congenitally deaf would have been looked for during the period covered by Table 35, since a decrease in the proportion of adventitious deaf-mutism, which in the nature of things is much more easy of prevention than congenital deafness, would normally accompany the increase in medical control over the contagious and infectious diseases which are the chief causes of this class of deaf-mutism and the increase in medical skill in treating morbid conditions in the ear. It is indeed difficult to believe that any progress which may have been made towards preventing congenital deaf-mutism has been sufficiently great to produce so marked a falling off in the relative importance of congenital deaf-mutes as the table indicates, or, on the other hand, that there has been any considerable increase in the relative frequency of adventitious deafness, especially when mortality statistics show that the death rate from the diseases to which such deafness is usually due has in general been tending to decrease over a period of years.

As a matter of fact, the apparent decrease in 1910 as compared with 1880 and 1890 in the percentage of deaf-mutes who werre born deaf is without question due in part at least to a more accurate differentiation between congenital and acquired deafness. In this connection the figures for the blind are of special significance. The percentage of the blind who were reported as suffering from congenital blindness was considerably smaller in 1910 than in 1880 ( 6.6 per cent as compared with 12.8 per cent); on the other hand, the proportion reported as losing their sight after birth but during the first year of life was higher in 1910 than at the earlier census ( 5 per cent as compared with 2.4 per cent), although the proportion losing it in each of the other age periods under 15 years had decreased. In view of the great progress made since 1880 in the prevention of blindness from ophthalmia neonatorum, which causes by far, the greater proportion of blindness occurring during the first year of life, it is very improbable that while all the other years of childhood have been decreasing their relative contribution to the blind population this one year has increased its contribution. There is little doubt that the decrease in the proportion reported as congenitally blind and the concomitant increase in that reported as losing sight after birth but while less than 1 year of age to a considerable extent at least merely indicates that many persons who would formerly have been erroneously reported as blind from birth are now accurately reported as having lost their sight in early infancy.
In view of the situation existing in regard to the blind, the question naturally arises as to how far such a condition may exist in the case of deaf-mutes.

Although the figures for 1910 and 1880 are not entirely comparable by reason of the lower limit of inclusion with regard to age when hearing was lost employed at the later census, most of the incomparability can be eliminated by confining the comparison to persons who lost their hearing before reaching the age of 8 . Such a comparison is made in Table 36, which shows the distribution by age when hearing was lost of the deaf-mutes reporting on this subject in 1910 and 1880, respectively.

| Table 36 <br> age when hearing was lost. | DEAF AND DUMB POPULATION REPORTED as less than 8 fears of age when hearing was lost. |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1910 |  | 1880 |  |
|  | Number. | Per cont distribution. | Number. | Per cent distribu. tion. |
| Total <br> Deafness congenital <br> Deafness acquired $\qquad$ <br> At age of - <br> Less than 1 year. $\qquad$ <br> 1 year. $\qquad$ <br> 2 years. <br> 3 years. $\qquad$ <br> 4 years. $\qquad$ <br> 5 years. <br> 6 years. <br> 7 years. | 18,160 | 100.0 | 21,182 | 100.0 |
|  | 7,533 | 41.5 | 12,155 | 57.4 |
|  | 10,627 | 58.5 | 9,027 | 42.6 |
|  |  | 9.0 |  | 4.8 |
|  | 2,375 | 13.1 | 1,275 | 6.0 |
|  | 2,606 | 14.4 | 2,447 | 11.6 |
|  | 1,572 | 8.7 | 1,569 | 7.4 |
|  | 1,959 | 5.3 | -989 | 4.7 |
|  | 714 | 3.9 | 806 | 3.8 |
|  | 454 | 2.5 | 540 | 2.5 |
|  | 319 | 1.8 | 392 | 1.9 |

While the proportion reported as born deaf shows a very considerable decrease in 1910 as compared with 1880, the proportion reported as losing hearing in each year of life up to and including the sixth shows an increase. This increase is particularly marked in the case of those who lost their hearing in the first two years, persons who lost it while less than 1 year of age constituting 9 per cent of the total in 1910 as compared with only 4.8 per cent in 1880 , and persons losing it while 1 year of age constituting 13.1 per cent in 1910 and only 6 per cent in 1880. In contrast with these increases, the increase in the percentage for persons who lost their hearing at the age of 2 , who ranked next in this respect, was only 2.8. As a result of these changes the fourth year of life, which in 1880 outranked every other year except the third in respect to the number of cases of acquired deaf-mutism originating in it, had in 1910 dropped to fourth place, having been passed by the second and first years. When all persons reported as losing their hearing prior to the completion of the second year of life (including those born deaf), a class corresponding practically to the "deaf since earliest youth" at the German census of 1900, are taken together, the percentage shows comparatively little change, decreasing from 68.2 in 1880 to 63.5 in 1910.

The fact that by far the greater part of the increase in the proportion of persons whose deafness was reported as acquired occurred among those who lost their hearing during the first two years of life would seem to bear out what has already been said as to the proba-
bility that the apparent decrease in the relative amount of congenital deaf-mutism is in large part the result of a more accurate differentiation between congenital and acquired deafness, as a result of which many persons in 1910 were correctly reported as having lost their hearing within the first two or three years of life who would formerly have been incorrectly reported as congenitally deaf. If this is not the case, there has been a marked change not only in the percentages of persons whose deafness was respectively congenital and acquired but also in the distribution with regard to age when hearing was lost of those whose deafness was acquired, as is brought out somewhat more clearly by the following table.

| Table 37AGE WHEN HEARING WAS LOST. | PER CENT DISTRIBUTION OF DEAF AND DUMB POPOLATION REPORTING HEARING AS LOST AFTER BIRTH BUT WHEN LESS THAN 8 YEARS OF AGE. |  |
| :---: | :---: | :---: |
|  | 1910 | 1880 |
| Total................................................... 100.0 . 100.0 |  |  |
| Under 1 year. | 15.3 | 11.2 |
| 1 year... | 22.3 | 14.1 |
| 2 years... | 24.5 | 27.1 |
| 3 years.. | 14.8 | 17.4 |
| 4 years.. | 9.0 | 11.0 |
| 5 years.. | 6.7 | 8.9 |
| 6 years. | 4.3 | 6.0 |
| 7 years..... | 3.0 | 4.3 |

Of the deaf-mutes in 1880 reported as suffering from acquired deafness who had lost their hearing before reaching the age of 8 years, only one-fourth (25.3 per cent) had lost it during the first two years of life, as compared with 37.7 per cent, or considerably more than one-third, in 1910. That there has actually been any such pronounced change appears doubtful, as it seems hardly probable that the changes in conditions which have affected the incidence of adventitious deafness, such as the increased control over communicable disease, have affected the different ages of childhood to such an unequal extent as the figures would indicate. On the whole, it seems reasonably certain that a more accurate segregation between congenital and acquired deafness is the most important factor in the changes shown in Table 36 with respect to age when hearing was lost.

It is, nevertheless, not impossible that there may actually have been a slight decrease in the proportion congenitally deaf and a corresponding increase in the proportion adventitiously deaf; indeed the fact that the proportion shown in Table 36 as losing their hearing at every year of age up to and including 5 was higher in 1910 than in 1880 suggests very strongly that this was the case. Even in considering these figures, however, it must be kept in mind that differences in the methods employed and in the accuracy of the enumeration at the respective censuses may have affected considerably the distribution with regard to age when hearing was lost. In view of this uncertainty, it will prob-
ably be advisable to await the results of another census before accepting a decrease in the relative amount of congenital deaf-mutism as conclusively established.
Relative risk of deaf-mutism at different ages.-In connection with statistics as to age when hearing was lost by the deaf-mute population on any given date, it must be remembered that they do not necessarily indicate the relative numbers who will lose their hearing at the different ages during any given year. In the first place, the deaf-mute population at any given date represents the accumulation of the greater part of a century, during which period the relative incidence of congenital and adventitious deafness, as well as that of adventitious deafness at the different ages, may have changed, and in the former instance at least probably has changed, so that the distribution at any given date will to a considerable extent be merely the composite result of all the tendencies existing throughout a long period of time. Another factor of importance in this connection is the circumstance that there is reason to believe that the death rate of the congenitally and the adventitiously deaf, and also of the adventitiously deaf who lost their hearing at different ages, varies more or less, so that the proportions who lost their hearing at different ages in the deaf-mute population on any given date will necessarily differ in greater or less degree from the corresponding proportions in the population becoming deaf-mutes during any stated period of time. For these reasons the distribution according to age when hearing was lost of the total deaf-mute population returning schedules at the census of 1910 affords no conclusive indication of the relative risk of deafness at the different ages.

An approximate indication of the relative risk at the different ages at the present time may, however, be obtained by comparing the ratios between the number who lost their hearing at each year of age among the deaf-mutes 10 to 14 years of age in 1910 for whom special schedules were returned, who constituted the youngest age group among the deaf and dumb which was not likely to receive further accessions, and the general population in 1910 of the age corresponding to that at which hearing was lost. Such a comparison is made in Table 38, which is restricted to those who lost their hearing when less than 8 years of age, as persons who lost their hearing after reaching that age were included in the tabulation only in the comparatively few instances where they had entirely lost the power of speech as an effective means of communication. It must be distinctly borne in mind that the ratios shown in the table do not represent the actual risk of deafness at the respective ages; their significance lies mainly in the fact that they afford a general indication of the relative magnitude of this risk during the different years of childhood considered in comparison with each other.

From this table it appears that the risk of adventitious deafness which will ultimately result in
deaf-mutism is highest during the first three years of life, the second year leading in this respect by a substantial margin, the third year ranking next, and the first year third. After the third year of life there is a sharp decrease, and after the fourth year another considerable decrease appears, which is followed by a slow and steady decrease throughout the remainder of the age period covered by the table.

| Table 38YEAR OF $A G E$. | General population of specified age: 1910. | ADVENTITIOUS DEAF-MUTES 10 TO 14 YEARSOF AGE FOR WROMSPECIAL SCHEDULESWERE RETURNED RE-PORTING HEARINGASLOST AT SPECFIEDAGE: 1910. |  |
| :---: | :---: | :---: | :---: |
|  |  | Total. | Per 100,000 general population of specifled age. |
| Under 8 years. | 16, 654, 822 | 1,384 | 8.3 |
| Under 1 year. | 2,217, 342 | 262 | 11.8 |
| 1 year.... | 1,976, 472 | 385 | 19.5 |
| 2 years. | 2, 166, 492 | 325 | 15.0 |
| 3 years. | 2, 156, 141 | 185 | 8.6 |
| 4 years. | 2,114, 917 | 88 | 4.2 |
| 5 years. | 2,035, 398 | 66 | 3.2 |
| 6 years. | 2,033, 834 | 45 | 2.2 |
| 7 years. | 1,954, 226 | 28 | 1.4 |

The smallness of the ratios for the later ages shown in the table is of course due in part to the fact that many children who have reached the age of 5 or 6 before becoming deaf have alttady learned to speak fairly well. The most important factor, however, in determining the relative risk at the different ages appears to be the relative incidence of the diseases of childhood which are responsible for the majority of cases of acquired deaf-mutism. So far as can be determined from mortality statistics, which constitute practically the sole basis of information on this subject, the incidence of these diseases is highest during the earliest years of life. This is brought out by the following table, which shows for the three-year period 1911-1913 the average annual death rate at the different ages among children under 10 years of age in England and Wales from the five diseases which are most largely responsible for acquired deaf-mutism.

${ }^{1}$ The mortality under 1 year of age is calculated per 100,000 births; that at other ages per 100,000 living at each age.

The aggregate death rate from the five causes shown in the table was much higher for the second year of
life than for any other year or group of years; this is also the year of life for which the greatest relative risk of deaf-mutism is shown in Table 38. The first year of life ranks second in respect to the death rate from the five specified causes combined, although in Table 38 it occupies third place, the third year of life ranking next to the second in regard to relative risk of deafness. In the main, however, there is a sufficiently close correspondence between the variations in the relative death rate at the different ages from the five causes specified in the table and those in the relative risk of deafness as shown in Table 38 to justify the conclusion that there must be a close relation between the incidence of deafness at the different ages and the incidence of the diseases for which death rates are given in Table 39.

Figures as to age when hearing was lost by individual years are not available for any foreign country. It is probable, however, that the returns as to age when deafness was first noticed for deaf-mute children of school age in Germany, to which reference has already been made, are, so far as concerns children whose deafness was acquired, reasonably comparable with those for age when hearing was lost for the United States, as the tendency in reporting age when hearing was lost would be to identify this age with that when deafness was first perceived. A comparison of these statistics with those for the United States is given in Table 40. The figures for the United States are confined to persons from 5 to 19 years of age at the date of enumeration, as this period of life corresponds approximately to that covered by the statistics for Germany, and only persons who lost their hearing before reaching the age of 7 are included for both countries, as in Germany the presumption appears to have been that most children losing their hearing after that age had fully developed their power of speech.

| age when hearna was lost OR WHEN DEAFNESS WAS FIRST NOTICED. 1 | DEAF AND DUMB POPOLATION OF THE UNITED STATES FROM 5 TO 19 years of age FOR WHOM SPECLAL SCHEDULES WERE RETURNED REPORTING HEARING AS LOST AFTER BIRTH BUT WHEN LESS THAN 7 YEARS OF AGE: 1910. |  | DEAF AND DUMB CEHDREN OF SCHOOL AGE IN GERMANY WHOSE DEAFNESS WAS REPORTED AS ACQUIRED WhEN LESS THAN 7 YEARS OF AGE: JANUARY 1, 1002-JUNE 30, 1005. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Number. | Per cent distribution. | Number. | Per cent distribution. |
| Total. | 3,453 | 100.0 | 3,979 | 100.0 |
| Under 1 year | 672 | 19.5 | 785 | 19.7 |
| 1 year. | 976 | 28.3 | 1,498 | 37.6 |
| 2 years. | 828 | 23.9 | 852 | 21.4 |
| 3 years. | 449 | 13.0 | 419 | 10.5 |
| 4 years. | 250 | 7.2 | 202 | 5.1 |
| 5 years. | 176 | 5.1 | 136 | 3.4 |
| 6 years.. | 104 | 3.0 | 87 | 2.2 |

${ }^{1}$ Figures for United States represent age when hearing was lost; those for Germany age when deafness was first noticed.

The distribution for the two countries differs to some extent. Both in Germany and in the United

States the largest group is that comprising children who lost their hearing, or whose deafness was first noticed, during the second year of life; the proportion was, however, distinctly higher for the former country than for the latter, the figures being 37.6 per cent, or considerably more than one-third, in Germany, and 28.3 per cent, or somewhat more than one-fourth, in the United States. In both countries also those who lost their hearing or whose deafness was first noticed at the age of 2 rank next in importance; but in this instance the proportion was somewhat the higher in the United States ( 23.9 per cent, as compared with 21.4 per cent for Germany), and for each of the succeeding ages shown in the table it was also distinctly higher in the United States. The percentage who lost their hearing when less than 1 year of age was practically the same. While it is somewhat difficult to explain the relatively greater incidence at the earliest ages which is shown for Germany, it may be noted that meningitis, which according to mortality returns has its greatest incidence during the first two years of life, appears to be somewhat more important as a cause of deafness in Germany than in the United States, although owing to the unsatisfactory character of the returns as to cause for the latter country, a certain degree of caution has to be employed in any consideration of them.

Comparison by sex.-When the distribution of male and female deaf-mutes according to age when hearing was lost, as shown in Table 32, is compared, the principal difference appears in the case of those reported as having been deaf from birth, who constituted a slightly larger proportion of the total for females than for males, 40.5 per cent as compared with 38.3 per cent. On the other hand, the percentage in each of the three main groups with respect to age when hearing was lost into which those whose deafness was acquired are divided was slightly greater for males than for females. These differences are reflected in the ratios of males to females among those losing their hearing at the different ages. Among those who reported their deafness as congenital there were 114.9 males to each 100 females, as compared with 126 to 100 among those whose deafness was acquired. The ratio, moreover, tends to increase with the age at which hearing was lost, being higher among those who lost their hearing during the second quinquennium of life than among those who lost it in the first, and still higher among those who lost it after the completion of the second quinquennium, although the figures for the individual years fluctuate considerably.
That this lower percentage of congenital deafness among male than among female deaf-mutes is a phenomenon by no means confined to the United States will be seen from Table 41, which shows for those foreign countries for which statistics are available the percentage of male and of female deaf-mutes, respectively, reported as congenitally deaf.

| Table 41 | Year. | deaf and dumb population. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Male. |  |  | Female. |  |  |
|  |  | Total. | Congenitally deaf. |  | Total. | Congenitally deaf. |  |
|  |  |  | $\begin{aligned} & \text { Num. } \\ & \text { ber. } \end{aligned}$ | Per cent of total. |  | Num- | Per cent of total. |
| Austria: <br> In institutions for deafmutes. <br> Outside institutions for deaf-mutes. | $\begin{aligned} & 1906 \\ & 1906 \end{aligned}$ | $\begin{array}{r} 980 \\ 15,529 \end{array}$ | $\begin{array}{r} 376 \\ 12,597 \end{array}$ | $\begin{aligned} & 38.4 \\ & 81.1 \end{aligned}$ | $\begin{array}{r} 808 \\ 12,222 \end{array}$ | $\begin{array}{r} 342 \\ 9,829 \end{array}$ | 42.3 |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | 80.4 |
| Germany: |  |  |  |  |  |  | 53.1 |
| Children of school age in institutions for deaf-mutes. $\qquad$ | 1902-5 | 1 3,854 | 1,856 | 48.2 | 13,142 | 1,668 |  |
| Children of school age outside institutions for deaf-mutes. | 1902-5 | 1649 1689 | 1,858 | 54.4 | 1543 | 312 | 57.5 |
| Ireland ...................... | 1911 | 1,751 | 1,280 | 73.1 | 1,394 | 1,045 | 75.0 |

${ }^{1}$ Number reporting as to age when hearing was lost.
In practically every instance the table shows a higher percentage congenitally deaf among female deaf-mutes than among male, the only exception being deaf-mutes outside of institutions for deafmutes in Austria, among whom the percentage is slightly higher for males. The difference is especially pronounced in the case of the deaf-mute children of school age in Germany, the statistics for whom are probably the most accurate of any given in the table by reason of the fact that the returns were made by physicians. This rather general tendency towards a higher percentage of acquired deafness among male deaf-mutes suggests that the excess of males which has already been noted as a general characteristic of this class of the population has its origin very largely in conditions related to the incidence of adventitious deafness. As a matter of fact mortality statistics show that the death rates from meningitis, measles, and scarlet fever, the diseases of childhood most frequently resulting in deafness, are higher for male children than for female, the difference in the case of the two diseases first mentioned being marked. This would seem to indicate that males offer less resistance to these diseases than do females, and it is not improbable that this greater susceptibility may manifest itself not merely in a greater mortality but also in a greater predisposition to unfortunate sequelae such as deafness. If this is actually the case, it would of course tend to make the number adventitiously deaf somewhat larger relatively among males than among females. Another possible factor is the circumstance that the diseases ordinarily occasioning deafness appear to occur at a somewhat earlier age among males than among females, so that even if the actual incidence of these diseases was the same for the two sexes the number losing their hearing before acquiring the power of speech would be somewhat greater for males than for females.

Comparison by geographic divisions.-General Table 9 (p. 121) shows for each geographic division and state
the distribution according to age when hearing was lost of the deaf and dumb population in 1910 for whom special schedules were returned. Table 42 shows for each division the per cent distribution based upon the figures in General Table 9.

The various divisions differ considerably from each other with regard to the percentage of the deaf and dumb returning schedules whose deafness was respectively congenital and acquired. In the South Atlantic division considerably more than one-half (55.5 per cent) of those returning schedules reported that
they had been born deaf, and the proportion was also in excess of one-half ( 51.2 per cent) in the East South Central division, while in the West South Central division it was 46.1 per cent, or considerably more than two-fifths, as compared with a percentage of only 38.2 for New England, which ranked next. In the Pacific division, on the other hand, the proportion reporting themselves as born deaf was only 29.1 per cent, or less than one-third, and it also fell below one-third in the Mountain, West North Central, and East North Central divisions.

| Table 42 ( age mben hearing was lost. | per cent distribution of deaf and |  |  |  | dumb population RETURNED: 1910. |  | FOR WHOM SPECIA |  | SCHEDULES WERE |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | United States. | $\begin{aligned} & \text { Neww } \\ & \text { England } \\ & \text { division. } \end{aligned}$ | Middle Atlantic division. | East North division. | $\begin{gathered} \text { West } \\ \text { North } \\ \text { Central } \\ \text { division. } \end{gathered}$ | South Atlantic division. | East South division. | West South Central | Mountain division. | Pacific division. |
| Total. | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Deafness congenital. | 39.3 | 38.2 | 35.4 | 33.1 | 32.9 | 55.5 | 51.2 | 46.1 | 32.4 | 29.1 |
| Deafness acquired ${ }^{1}$. | 60.7 | 61.8 | 64.6 | 66.9 | 67.1 | 44.5 | 48.8 | 53.9 | 67.6 | 70.9 |
| Less than 5 years.. | 48.3 | 50.0 | 50.3 | 53.8 | 54.7 | 33.2 | 37.4 | 44.5 | 59.4 | 59.4 |
| Less than 1 year. | 8.5 | 7.9 | 7.3 | 8.9 | 9.6 | 6.7 | 8.4 | 10.2 | 13.1 | 9.6 |
| 1 year.. | 12.4 | 12.0 | 12.6 | 13.0 | 14.9 | 9.2 | 10.3 | 11.8 | 14.2 | 16.0 |
| 2 years... | 13.6 | 14.6 | 15.1 | 15.5 | 16.0 | 8.1 | 9.2 | 11.3 | 15. 3 | 16.5 |
| 3 years............... | 8.2 |  |  |  |  |  | 5.4. | 6.9 | 9.7 | 10.2 |
| 4 years............................ | 5.0 0.6 | 5.5 0.2 | 5.8 0.4 | 5.7 1.2 | 5.4 0.5 | 2.8 | 3.9 0.3 | 4.0 0.2 | 8.8 0.3 | 6.5 0.5 |
| 5 to 9 years. | 8.3 | 7.3 | 9.8 | 9.1 | 8.2 | 6.8 | 7.3 | 6.9 | 6.5 | 8.8 |
| 5 years... | 3.7 | 4.5 | - 4.3 | 4.5 | 3.4 | 2.7 | 3.2 | 2.6 | 2.6 | 4.1 |
| 6 years.. | 2.4 | 1.3 | 3.1 | 2.3 | 2.6 | 1.8 | 2.3 | 1.9 | 1.4 | 2.8 |
| 7 years. | 1.7 | 1.0 | 1.9 | 1.9 | 1.7 | 1.4 | 1.2 | 1.7 | 2.6 | 1.7 |
| 8 years... | 0.4 | 0.3 | 0.4 | 0.3 | 0.4 |  | 0.4 | 0.4 |  | 0.2 |
| 9 9 years...... | 0.2 0.7 | 0.3 0.4 | 0.1 | 0.1 0.7 | 0.1 | 0.3 1.2 | 0.3 0.8 | 0.3 0.7 | 0.3 | 0.7 |
| At age not reported. | 3.3 | 4.1 | 3.9 | 3.3 | 3.4 | 3.3 | 3.3 | 1.9 | 1.4 | 2.1 |

${ }^{1}$ Includes those for whom the age when hearing was lost was not reported

A precise explanation of the differences just referred to is difficult to give, and they probably result from a variety of factors. The theory has been advanced that newly settled regions are likely to have fewer congenital deaf-mutes than regions of older settlement, on the ground that the influence of consanguineous marriages has not yet had time to manifest itself, and there is some probability that this may actually be the case. In this connection it may be pointed out that the three southern divisions, in which the percentage of congenital deaf-mutes is much higher than in any of the other divisions, contain a much smaller number of migrants from other countries and states than the other divisions, so that it is in these divisions that the influence of consanguineous marriages in producing deaf-mutism would be expected to be most pronounced. On the other hand, the western divisions, which show the lowest percentage of congenital deaf-mutism, comprise a larger number relatively of migrants in their population than the other divisions.
Differences in the prevalence, either at the present time or in the past, of the various diseases which constitute the chief causes of acquired deaf-mutism also account in part for the differences in the percentage of congenital cases among the deaf-mutes of the respective divisions. In the southern divisions, moreover, the presence of a large Negro population is to some
extent responsible for the high percentage who stated that they were born deaf among the deaf and dumb returning special schedules, as the percentage congenitally deaf is much higher among Negroes than among whites, probably in part by reason of the apparently lesser susceptibility of members of the former race to certain important causes of adventitious deafness. Even for the whites in these divisions, however, the percentage congenitally deaf appears to be considerably above the average. Figures on this point for 1910 or 1900 are unfortunately not available; Table 43, however, shows for each geographic division the percentage of the white and colored deaf and dumb population in 1890 who reported that they were congenitally deaf.

## Table 43

| PER CENT CONGENITALLY AMONG DEAF AND DUMB LATION: 1890.1 |  |  | $\begin{aligned} & \text { I DEAF } \\ & \text { IB POPU- } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| Total. | White. | Col |  |
| 45.3 | 43.7 |  | 65.4 |
| 44.6 | 44.5 |  | 54.2 |
| 42.0 | 41.9 |  | 55.2 |
| 37.3 | 37.2 |  | 49.5 |
| 36.9 | 36.7 |  | 50.0 |
| 61.4 | 59.6 |  | 66.6 |
| 60.7 | 58.4 |  | 68.4 |
| 53.3 | 50.4 |  | 65.4 |
| 41.6 | 41.6 |  | 50.0 |
| 37.3 | 37.2 |  | 50.0 |

[^16]reported.

In each of the three southern divisions in 1890 more than one-half of the deaf and dumb whites for whom the age when hearing was lost was indicated were reported as born deaf, the proportion being nearly three-fifths ( 59.6 per cent and 58.4 per cent, respectively) in the South Atlantic and East South Central divisions. In New England, on the other hand, which shows the highest percentage congenitally deaf for the whites outside of the South, the proportion was only 44.5 per cent, or somewhat more than twofifths. The difference between the percentages for the two races was, in fact, smallest in the South Atlantic division. Thus the high percentage of congenital deafness shown for the three southern divisions in Table 42 would appear to be due in the main to conditions affecting both races.
That the differences between the divisions as regards the relative amount of congenital and acquired deafness among the deaf-mutes in their population reflect conditions which have existed for a considerable period of time is brought out by Table 44, which shows for 1910, 1900, and 1890 the percentage reported as congenitally deaf in the deaf and dumb population of each geographic division.

| Table 44division. | PER CENT CONGENItally deaf among deaf and dumb porULATION. ${ }^{1}$ |  |  | RANK IN PERCENTAGE. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1910 ${ }^{\text {\% }}$ | 1900 ${ }^{8}$ | 18904 | $1910{ }^{2}$ | $1900{ }^{8}$ | 18904 |
| United States. | 40.9 | 38.7 | 45.3 |  |  |  |
| New England. | 39.9 | 35.6 | 44.6 | 4 | 4 | 4 |
| Middle Atlantic. | - 37.0 | 34.5 | 42.0 | 5 | 5 | 5 |
| Tast North Contral | 34.7 | 31.7 | 37.3 | 6 | 8 | 7 |
| West North Central | 34.2 | 31.8 | 36.9 | 7 | 8 | 9 |
| Gouth Atlantic..... | 57.9 | 54.9 | 61.4 | 1 | 1 | 1 |
| East South Contral | 53.1 | 51.4 | 60.7 | 2 | 2 | 2 |
| West South Central | 47.1 | 47.5 | 53.3 | 3 | 3 | 3 |
| Mountain. | 32.9 | 33.6 | 41.6 | 8 | 6 | 8 |
| Pacific. | 29.9 | 32.8 | 37.3 | 9 | 7 | 8 |

1 Based upon the population for whom the age when hearing was lost was definitely reported.
${ }^{2}$ Figures relate to deaf and dumb population for whom special schedules were roturned.

3 Figures relate to deaf population for whom special schedules were returned less
${ }^{3} 8$ years of age when hearing was lost. than 8 years of age when hearing was lost.
*Figures relate to deaf who were unable to speak.
At all three censuses the percentage congenitally deaf was much higher in the three southern divisions than in any of the others, the rank of these three divisions in fact being the same in each year. At all three censuses, moreover, the percentage in the four northern divisions (the New England, Middle Atlantic, East North Central, and West North Central) showed, with one slight exception in 1900, a progressive decrease from east to west, the rank of the two most easterly divisions (the New England and Middle Atlantic) also being the same in each year. The only important difference in the ranking at the three censuses on the basis of the percentage congenitally deaf among the deaf and dumb is in fact due to the circumstance that the percentage shows a greater falling off relatively in the two most westerly divisions, the Mountain and Pacific, than in any of the others, both divisions outranking the

West North Central division and the Mountain division also outranking the East North Central in 1890, while in 1910 they showed the lowest percentage of any of the divisions. Whether these differences, however, reflect actual changes in conditions or are explained by the differences in the scope and method of the enumeration at the two censuses it is impossible to determine.

In comparing the distribution in respect to age when hearing was lost of the deaf and dumb in the respective geographic divisions, as shown in Table 42, the possibility must be considered that in addition to the factors already noted as probably contributing to differences in this distribution the accuracy in distinguishing between the congenitally and the adventitiously deaf may have varied more or less. In particular, it seems possible that this may to some extent explain the high proportion reported as congenitally deaf in the three southern divisions, as the returns for the Negroes, who constitute a large proportion of the population in these divisions, were in general less accurate than those for the whites, and it is probable that the most common form of inaccuracy in statistics as to age when hearing was lost lies in the improper reporting as born deaf of persons who actually lost their hearing in early infancy.

Comparison by race and nativity.-General Table 10 (p. 122) shows the distribution according to age when hearing was lost of the deaf and dumb in the various race and nativity classes in 1910 for whom special schedules were returned, classified by sex and broad age groups.. Table 45 shows for each race and nativity class the number and percentage who reported themselves as congenitally deaf.

${ }_{2}$ Includes those for whom the age when hearing was lost was not reported.
2 Per cent not shown where base is less than 100.
This table indicates that there is a marked difference in the relative number of congenital cases among white and Negro deaf-mutes, since 55.7 per cent, or considerably more than one-half, of the latter stated that they were born deaf, as compared with only 38.3 per cent, or less than two-fifths, of the former. Although this difference may to some extent be explained by a less accurate distinction among the Negroes between congenital and acquired deafness, it is not improbable that the proportion of congenital deafness is actually
higher among Negroes than among whites, since Negroes are apparently less susceptible to certain of the diseases causing adventitious deaf-mutism than are the whites, and are, moreover, mainly concentrated in the South, where the percentage congenitally deaf is above the average even for whites.

The proportion born deaf was higher among the native than among the foreign-born whites, the percentages being 39 , or nearly two-fifths, and 31.9 , or less than one-third, respectively. It seems somewhat doubtful, however, whether there is actually so pronounced a difference between the two nativity classes in this respect, as in 1890 the percentage congenitally deaf among those for whom the age when hearing. was lost was reported was slightly higher for the foreignborn than for the native whites ( 44.7 per cent as compared with 43.5 per cent). In particular, there is some reason to believe that the foreign-born whites returning schedules comprised a relatively large proportion of children attending schools for the deaf, for whom the segregation between congenital and acquired deafness was in all probability more accurately made than for the population at large.

Table 46 shows the distribution according to age when hearing was lost of the deaf and dumb in the various race and nativity classes in 1910 who reported that their deafness was acquired.


[^17]The three race and nativity classes for which percentages are given in Table 46 show a marked difference in the distribution according to age when hearing was lost for the adventitiously deaf. Of the native whites more than four-fifths ( 81.4 per cent) were less than 5 years of age when they lost their hearing, of the foreign-born whites, less than three-fourths (73.3 per cent), and of the Negroes only three-ifths (60.5 per cent). On the other hand, nearly one-tenth (9.3 per cent) of the Negroes lost their hearing after reaching the age of 8 , when the power of speech is ordinarily fully developed, as compared with only 1.6 per cent for the native whites and 2.8 per cent for the foreign-born whites. In the case of the Negroes it is probable that children losing their hearing after acquiring the faculty of speech are not as likely to be sent to a school for the deaf as are white children who become deaf, and hence in a larger number of cases eventually lose the faculty of speech which they had previously acquired. It is possible, furthermore, that children losing their hearing during the first year or two of life are reported as born deaf among the Negroes to a much greater extent than among the whites. The low percentages of persons reported as losing their hearing in infancy for the foreign-born whites, when taken in conjunction with the low percentage of congenital cases, suggest the possibility that persons having deaf-mute children are somewhat less likely to migrate to another country than those whose children are all normal.
Table 47 shows the number reported as born deaf among the male and female deaf-mutes in 1910 for whom special schedules were returned, classified according to race and nativity.

| Table 47 <br> bace and nativity. | deaf and dumb poptiation for whom speclal SChedules were returned: 1910. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male. |  |  | Female. |  |  |
|  | Total. ${ }^{1}$ | Congenitally deal. |  | Total. ${ }^{1}$ | Congenitally deaf. |  |
|  |  | $\begin{aligned} & \text { Num- } \\ & \text { beer. } \end{aligned}$ | Per cent of total. |  | $\begin{aligned} & \text { Num- } \\ & \text { ber. } \end{aligned}$ | $\begin{aligned} & \text { Per } \\ & \text { cent } \\ & \text { of } \\ & \text { total. } \end{aligned}$ |
| All classes. | 10,507 | 4,028 | 38.3 | 8,646 | 3,505 | 40.5 |
| White. | 9,888 | 3,690 | 37.3 | 8,128 | 3,212 | 39.5 |
| Native. Foreign-born | 8,855 1,033 | 3,368 322 | 38.0 31.2 | 7,323 805 | 2,947 265 | 40.2 32.8 |
| Negro. All other | 584 35 | 320 18 | ${ }_{(24)}^{54.8}$ | 485 33 | 275 18 | 56.7 <br> ( ${ }^{8}$ ) |

1 Includes those for whom the age when hearing was lost was not reported.
1 Per cent not shown where base is less than 100.
In each class for which the percentages are shown in the table the proportion reported as born deaf was higher for females than for males, the difference in the percentage being greatest (2.2) for the native whites and least (1.7) for the foreign-born whites.

Comparison according to age at enumeration.-General Table 10 (p.122) shows the distribution according
to age when hearing was lost of the deaf and dumb population in the different race and nativity classes in 1910 for whom special schedules were returned, classified broadly according to age at enumeration.

Table 48 shows the per cent distribution according to age when hearing was lost of all deaf-mutes in 1910 for whom special schedules were returned, classified according to age at enumeration.


1 Includes those for whom the age when hearing was lost was not reported.
2 Includes the small number whose age at enumeration was not reported.
${ }^{8}$ Less than one-tenth of 1 per cent.

The proportion reported as born deaf differs considerably in the different age groups. As would be expected, it was highest ( 61.7 per cent, or more than three-fifths) among those who were less than 5 years old at the date of the census, and next highest for the age group " 5 to 9 years" ( 47.6 per cent, or somewhat less than one-half); the prominence in this respect of these two groups of course results from the fact that they have not yet made their full contribution to the number of the adventitiously deaf. In the next three age groups, comprising persons from 10 to 24 years old, the proportion was a little in excess of two-fifths; among those from 25 to 44 years of age, however, it was only one-third ( 33.8 per cent), but it increased in each of the two following age periods, until among those 65 or over it was approximately the same as among those from 10 to 24 ( 42 per cent, or more than two-fifths).

The table reveals some interesting differences in the relative importance of the different classes of the adventitiously deaf on the basis of age when hearing was lost among the various groups with respect to age at enumeration. Persons who lost their hearing during the first five years of life show a very pronounced decrease in relative importance in the latest ages, forming 52.6 per cent, or more than one-half, of those from 25 to 44 years of age, but only 37.4 per cent, or considerably more than one-third, of those 65 or over. This same tendency is also shown for those who lost their hearing in each of the first four years of life; in fact those reported as losing their hearing during the first year formed a smaller proportion of the total in eachsuccessive age group after the age of 24 , and those reported as losing it in the second year a smaller proportion in each group after the age of 14 . In the case of later
groups with respect to age when hearing was lost, however, the proportion tends on the whole to increase in the successive groups with respect to age at enumeration. The contrast between the relative importance at the different ages of the different groups with respect to age when hearing was lost is brought out by Table 49, which shows the percentage each group represented of the deaf and dumb in 1910 who reported their deafness as acquired and were respectively 10 to 14 years of age and 65 years of age or over at the date of the enumeration.

| Table 49age when hearing was lost. | PER CENT DISTRIBUTION of deaf and dumb POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED WHOSE DEAFNESS WAS ACQUIRED: 1910. ${ }^{1}$ |  |
| :---: | :---: | :---: |
|  | 10 to 14 years of age. | 65 years of age or over. |
| Total. | 100.0 | 100.0 |
| Under 5 years ${ }^{2}$. | 89.9 | 71.6 |
| Under 1 year | 18.6 | 6.5 |
| 1 year.. | 27.3 | 12.7 |
| 2 years. | 23.0 | 21.6 |
| 3 years. | 13.1 | 15.9 |
| 5 to 4 years.. | 6.2 | 13.7 |
| 10 years or over. | 10.0 0.1 | 21. 6 |

${ }^{1}$ Based upon the population for whom the age when hearing was lost was roported. a
2 Includes those poported as having lost their hearing in infancy but without statement as to the exact age.

Persons who lost their hearing during the first year of life were nearly three times as numerous relatively among the deaf-mute children 10 to 14 years of age whose deafness was reported as acquired as among adventitious deaf-mutes 65 years of age or over, while persons who lost their hearing during the second year were more than twice as numerous relatively. Persons who lost it during the third year of life formed a
slightly larger proportion of the former class than of the latter; on the other hand, persons who lost it during the fourth year were somewhat more numerous relatively among the latter. The proportions who had lost their hearing during the fifth year of life and during the second quinquennium, however, were more than twice as great among those 65 years of age or over as among children 10 to 14 years of age, and the proportion whose deafness did not supervene until after the completion of the first decade of life was also much greater for the former than for the latter.

The causes which produce these variations are more or less obscure and uncertain, and to some extent no doubt minor differences between the groups may be dismissed as accidental. There are, however, certain factors which deserve attention in this connection and which not improbably have an influence upon the distribution according to age when hearing was lost for deaf-mutes of the different ages. In part at least the variations under consideration probably reflect differences in the mortality rate for those whose deafness was respectively congenital and acquired, and for those who lost their hearing at the different ages. Those whose deafness is due to a congenital defect, and who are otherwise in the majority of cases likely to be entirely normal physically, may very well possess a higher degree of resistance to disease and have a greater expectation of life than those who lost their hearing as the result of one of the more serious diseases of childhood, which are liable not only to bring deafness in their train but also to leave latent weaknesses such as tend to reduce the power of resistance to future attacks of disease or even to become the starting point of new morbid processes that may have a fatal termination.

The lower proportion who lost their hearing when 5 years of age or over in the younger age groups as compared with the older may reflect an increase in the frequency with which children losing their hearing after they have acquired the faculty of speech receive instruction at schools for the deaf which enables them to retain their speech and consequently keeps them from entering the ranks of deaf-mutes; another factor which may be of importance in this connection is the great increase during the past three decades in the teaching of speech to the deaf. The progress of medical science toward a better control of the communicable diseases of childhood, both as regards prevention and as regards method of treatment, would likewise tend to make the proportion whose deafness was acquired after reaching the age of 5 smaller in the younger age groups than in the older. The fact that, nevertheless, those who lost hearing in infancy or the earliest years of childhood, unlike those who lost it after the age of 5 , form an increasingly smaller proportion in the older age groups may be in part explained by the circumstance that during these early years meningitis, which is probably the most difficult of control of any of the more important causes of deafness, has its greatest incidence; it is also probable that the diseases occasioning deafness have other sequelae likely to shorten life more often when they occur in infancy than when they come later. Furthermore, the higher percentages in the earlier years may represent an increased accuracy in the segregation between the congenitally deaf and those born with normal hearing but losing it in the first year or two of life.
Table 50 shows the age distribution of the deaf and dumb in 1910 for whom special schedules were returned, classified according to age when hearing was lost.

| Table 50 | PER CENT distribution of deaf and dumb population for whom special schedules were returned: 1910. ${ }^{1}$ |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total. | Deafness congenital. | Deafness acquired. ${ }^{2}$ |  |  |  |  |  |  |  |  |  |
|  |  |  | At less than 5 years of age. |  |  |  |  |  |  |  | At 5 to 9 years of age. | At 10 years of age or over. |
| AGE AT ENUMERATION. |  |  | Total. | Total. | Less than 1 year. | 1 year. | 2 years. | 3 years. | 4 years. | Infancy (exact age not reported). |  |  |
| All ages.. | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Under 5 years. | 1.6 | 2.5 | 1.0 | 1.2 | 1.9 | 2.1 | 0.8 | 0.3 |  | 2.6 |  |  |
| 5 to 9 years.... | 9.7 | 11.7 | 8.4 | 9.1 | 10.5 | 10.8 | 8.2 | 7.9 | 6.6 | 12.3 | 3.2 |  |
| 10 to 14 years. | 13.4 | 14.1 | 13.0 | 13.7 | 16.1 | 16.2 | 12.5 | 11.8 | 9.2 | 21.1 | 8.9 | 0.7 |
| 15 to 19 years........................ | 12.6 | 13.8 | 11.7 | 12.1 | 14.7 | 14.1 | 11.0 | 8.9 | 10.3 | 13.2 | 10.2 | 4.3 |
| 20 to 24 years. . | 10.8 | 11.4 | 10.4 | 11.1 | 13.7 | 11.8 | 10.7 | 9.4 | 8.8 | 8.8 | 7.3 | 2.9 |
| 25 to 44 years.. | 30.9 | 26.6 | 33.7 | 33.6 | 30.1 | 30.4 | 36.1 | 36.2 | 38.7 | 16.7 | 38.0 | 28.1 |
| 45 to 64 years... | 16.9 | 15.5 | 17.8 | 16.0 | 11.3 | 12.4 | 17.2 | 21.4 | 20.5 | 21.1 | 26.8 | 43.8 |
| 65 years or over................. | 4.2 | 4.5 | 4.0 | 3.2 | 1.7 | 2.2 | 3.5 | 4.2 | 5.9 | 4.4 | 5.6 | 20.1 |

${ }^{1}$ Based upon the population whose age at enumeration was reported.
${ }^{2}$ Includes those for whom the age when hearing was lost was not reported.

It will be observed that there are marked differences between the age distribution of the congenitally and that of the adventitiously deaf, and also in that of the different classes of the adventitiously deaf. The pro-
portion of adults was much higher among those whose deafness was acquired, the percentage 20 years of age or over for this class being 65.9, or almost two-thirds, as compared with 57.9 , or somewhat less than three-fifths.
for those who reported their deafness as congenital. As a result, the median age of the congenitally deaf was about 5 years less than that of the adventitiously deaf, the figures being 23.5 and 28.2 years, respectively. These differences are of course to some extent due to the fact that the congenitally deaf naturally comprise more young children relatively than the adventitiously deaf; but the circumstance that the proportion between the ages of 10 and 24 was higher for the congenitally deaf, whereas the proportion between the ages of 25 and 64 was much higher for the adventitiously deaf, indicates that this is not the only factor. This is brought out somewhat more clearly by Table 51, which shows the age distribution of the congenitally and adventitiously deaf, respectively, 10 years of age or over.

| Table 51 | PER CENT DISTRIBUTION OF DEAF and dumb population 10 Years OF AGE OR OVER FOR WHOM SPECiAL SCEEDULES WERE RETURNED: 1910. ${ }^{1}$ |  |  |
| :---: | :---: | :---: | :---: |
|  | Total. | Congenitally deaf. | Adventitiously deaf. |
| 10 years or over | 100.0 | 100.0 | 100.0 |
| 10 to 14 years. | 15.1 | 16.4 | 14.4 |
| 15 to 19 years. | 14.2 | 16.1 | 12.9 |
| 20 to 24 years.. | 12.1 | 13.2 | 11.5 |
| 25 to 44 years. | 34.8 | 31.0 | 37.2 |
| 45 to 64 years. | 19.0 | 18. 1 | 19.6 |
| 65 years or over. | 4.7 | 5.2 | 4.4 |

1 Based upon the population whose age at enumeration was reported. ${ }^{2}$ Includes those for whom the age when hearing was lost was not reported.
Of the congenitally deaf 10 years of age or over, nearly one-third ( 32.5 per cent) were under 20 years of age, as compared with a corresponding proportion of somewhat more than one-fourth ( 27.3 per cent) for the adventitiously deaf. On the other hand, persons from 25 to 64 years of age formed only 49.1 per cent of the congenitally deaf, as compared with 56.8 per cent of the adventitiously deaf. The proportion of old people 65 or over, however, was slightly higher among the congenitally deaf, the percentages being 5.2 and 4.4, respectively. The median age, when the comparison is confined to persons 10 years old or over, continues to be higher for the adventitiously than for the congenitally deaf ( 31 as compared with 27.7 years). From these figures it is evident that even after the influence of the earlier age at which the congenitally deaf lost their hearing is eliminated, this class is distinctly a younger class than the adventitiously deaf. The factors which probably contribute to this result have already been suggested. In particular, it seems not improbable that the number of persons annually becoming deaf-mutes from adventitious causes may be falling off relatively to the annual number born deaf, so that the former class is to an increasingly greater extent made up of the survivors from previous years. Another factor to be taken into consideration is the increase in the teaching of speech to the deaf, and also in the extent to which deaf children are sent to
school, which results doubtless in preventing many children from becoming deaf-mutes who formerly would have become so. It is possible, also, that the adventitiously deaf are somewhat longer-lived than those whose deafness is congenital, but the fact brought out by Table 48 that the percentage congenitally deaf tends to increase in the later age groups makes this seem doubtful, especially as the percentage of old people is, as already noted, somewhat higher among the congenitally deaf than among those whose deafness is acquired.

The contrast in the age distribution of the adventitiously deaf who lost their hearing at the different ages is even more marked than that in the distribution of those whose deafness was respectively congenital and acquired. Thus of those who lost their hearing when less than 5 years of age, 19.3 per cent, or onefifth, were 45 years of age or over; of those who lost it between the ages of 5 and 9 years, nearly one-third ( 32.5 per cent); and of those who lost it after the first decade of life, considerably more than three-fifths ( 64 per cent). Moreover, among those who lost their hearing during the first quinquennium of life, the proportion who were 45 or over increases with the age when loss of hearing occurred, being only 13 per cent, or about one-eighth, among those who lost it during the first year of life, as compared with 26.5 per cent, or more than one-fourth, among those who lost it during their fifth year. In particular, the proportion of old people 65 or over shows a regular increase in each successive age group on the basis of age when hearing was lost, being only 1.7 per cent among those who lost it during the first year of life, as compared with 5.6 per cent among those who lost it between the ages of 5 and 9 , and 20.1 per cent among those who lost it after reaching the age of 10 . While these differences are in some measure due to the circumstance that the relative number of children necessarily decreases as the age when hearing was lost increases, the changes are so marked as to make it appear reasonably certain that this was on the whole a minor factor. This is brought out somewhat more clearly by Table 52, which shows the median age of the adventitiously deaf 10 years of age or over who lost their hearing at the different ages.
It will be seen that even among those who were 10 years of age or over at the date of enumeration the median age increases steadily with the age when hearing was lost, from 24.7 years in the case of those who were less than 1 year of age when hearing was lost to 49.7 years in the case of those who lost it at the age of 9 and 51.4 years in the case of those who became deaf after the completion of the first decade of life. The increase in the median for the group comprising persons who lost their hearing at the age of 2 as compared with those who lost it at the age of 1 is more than 5 years. The increases for the five succeeding groups are, however, comparatively
small, but the median for persons who lost their hearing at the age of 8 is about 10 years higher than that for persons who lost it at the age of 7.
MEDIAN AGE OF DEAF
AND DUMB POPU-
LATHON FOR WHOM
SPECLAL BCEEDULES
WERE RETURNED
WHOSE DEAFNESS
WAS
1910.

|  | Total. | 10 years of age or over. |
| :---: | :---: | :---: |
| Total ${ }^{2}$. | 28.2 | 31.0 |
| Under 5 years ${ }^{3}$. | 26.7 | 29.8 |
| Under 1 year | 22.5 | 24.7 |
| 1 year... | 22.9 | 26.0 |
| 2 years. | 28.8 | 31.3 |
| 3 years. | 31.5 | 33.8 |
| 4 years.. | 32.8 | 34.5 |
| 5 to 9 years. | 35.8 | 36.6 |
| 5 years.. | 33.7 | 34.8 |
| 6 years. | 35.6 | 36.3 |
| 7. years. | 37.1 | 37.9 |
| 8 years.. | 47.0 | 47.0 |
| 9 years.. | 49.7 | 49.7 |
| 10 years or over. | 51.4 | 51.4 |

1 Based upon the population whose age at enumeration was reported. Includes those reported as having lost their was lost was not reported. statement as to the exact age.

The causes actually responsible for the differences noted are probably to some extent the same as those which account for the differences in the age of the adventitiously deaf as a class and that of the congenitally deaf; in particular, the increase in the extent to which deaf children are sent to school and in the teaching of speech, while having little or no influence upon the number becoming deaf-mutes as the result of loss of hearing in infancy or early childhood, would reduce the number to an increasingly greater extent as the age when hearing was lost increased, and this reduction would affect principally persons who are still comparatively young, because the older people lived through the educational period of their lives at a time when speech was little taught. Consequently the later age groups with respect to age when hearing was lost necessarily would be made up to a greater extent relatively of old people-the survivors from former years-than the earlier groups. It is furthermore not improbable that the adverse influence of the maladies causing adventitious deafness upon the expectation of life may be much greater where the illness occurs in infancy than where the child has attained a certain measure of growth.

From what has previously been said it is apparent that the factors modifying the age distribution of the adventitious deaf-mutes as a class are so complex that a comparison of this distribution with that of the total population would be of uncertain value as a means of determining the relative longevity of the former class. The influences affecting the age distribution of the congenitally deaf and of the adventitiously deaf who lost their hearing in infancy are, however, not so complex, so that a comparison with
the age distribution of the general population should afford a fairly accurate indication of the general influence of their defect upon their longevity. The means for such a comparison is given in Table 53, which shows the per cent distribution by age of the native population of the United States in comparison with that of the deaf and dumb population returning special schedules who reported themselves respectively as born deaf and as having lost their hearing during the first and second years of life. On account of the deficiencies in the returns for the deaf and dumb under 5 years of age, the comparison is confined to the population 5 years of age or over.

| Table 53 | PER CENT DISTRIBUTION OF POPULATION 5 YEARS OF AGE OB OVEE: 1910. ${ }^{1}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Native. ${ }^{2}$ | Deaf and dumb for whom special schedules were re turned. |  |  |
| AGE AT ENOMERATION. |  | Congenitally deaf. | Under 1 year of age when hearing was lost. | 1 year but under 2 years of age when hearing was lost. |
| 5 years or over.. | 100.0 | 100.0 | 100.0 | 100.0 |
| 5 to 9 years. | 13.9 | 12.0 | 10.7 | 11.0 |
| 10 to 14 years. | 12.9 | 14.4 | 16.4 | 16.6 |
| 15 to 19 years. . | 12.4 | 14.2 | 15.0 | 14.4 |
| 20 to 24 years... | 11.2 | 11.6 | 14.0 | 12.0 |
| 25 to 44 years. | 30.8 | 27.3 | 30.7 | 31.1 |
| 45 to 64 years.. | 14.7 | 15.9 | 11.5 | 12.7 |
| 65 years or over... | 4.1 | 4.6 | 1.7 | 2.3 |

${ }^{1}$ Based upon the population whose age at enumeration was reported.
2 Comprises the native white, Negro, and Indian population.
This table would seem to indicate that so far as the congenitally deaf are concerned their defect has little, if any, influence upon their expectation of life. The proportion in middle life or old age (45 years of age or over) was in fact higher for this class than it was for the total native population 5 years of age or over ( 20.5 per cent as compared with 18.8 per cent) and the percentage of old people ( 65 or over) was also slightly higher ( 4.6 per cent as compared with 4.1 per cent). On the other hand, the proportion 45 or over was distinctly lower among the deaf-mutes who lost their hearing during the first or second year of life than it was in the population as a whole or among the congenitally deaf, the percentage being only 13.2, or a little more than one-eighth, for those reporting their hearing as lost when less than 1 year of age, and 15 , or more than one-seventh, for those who lost it in the second year of life. The difference in the percentage of old people is also very marked, only 1.7 per cent of those who lost their hearing during the first year of life and only 2.3 per cent of those who lost it during the second year being 65 years of age or over, as compared with percentages of 4.1 and 4.6 , as already pointed out, for the total native population and the congenitally deaf, respectively. While allowance must be made for the possible influence of other factors, these figures tend very strongly to bear out the sugges-
tion already made that the adventitiously deaf, at least those losing their hearing in infancy, are distinctly shorter-lived than those of normal hearing or even than the congenitally deaf.
Table 54 shows the distribution according to age when hearing was lost of the male and female deafmute population in 1910 for whom special schedules were returned, classified according to age at enumeration.


[^18]The principal difference between the two sexes as regards the percentage congenitally deaf in the various age groups brought out by this table consists in the fact that whereas in the case of males the age group " 15 to 19 years" shows a distinct increase in the percentage as compared with the preceding age group, in the case of females the percentages for the two age groups are practically the same. The increase in the percentage congenitally deaf shown for the oldest age group is also much more pronounced for males than for females. It will be observed that the excess of the percentage congenitally deaf for females over that for males decreases in general in the older age groups, until among those 65 or over the percentage is higher for males than for females. This gradual disappearance of the excess in the percentage ${ }^{\circ}$ for females is of course what would normally be expected if the death rate among the adventitiously deaf and dumb is actually higher than that for congenital deaf-mutes. The higher percentage congenitally deaf for males in the final age group is, however, difficult
to account for, unless possibly the greater longevity of females operates somewhat more strongly in the case of the adventitiously than of the congenitally deaf.

Table 55 shows the distribution according to age at enumeration of the male and female deaf-mutes for whom special schedules were returned, classified according to age when hearing was lost.

| Table 55age at endmeration. | PER CENT DISTRIBUTION ${ }^{1}$ OF DEAF AND DUMB POPULATION IN 1910 for Whom speclal schedulig were returned whose deafness was- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Con- } \\ \text { genital. } \end{gathered}$ | Acquired. ${ }^{\text {a }}$ |  |  |  |  |
|  |  | Total. | At less than 5 years of age. |  |  | $\begin{gathered} \text { At } 5 \\ \text { to } 9 \\ \text { years } \\ \text { of age. } \end{gathered}$ |
|  |  |  | Total. ${ }^{3}$ | ( Less | 2 to 4 years. |  |
| All ages. <br> Under 5 years. 5 to 9 years. 10 to 14 years 15 to 19 years. <br> 20 to 24 years. <br> 25 to 44 years. <br> 45 to 64 years <br> 65 years or over. | male. |  |  |  |  |  |
|  | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
|  | 2.4 | 1.0 | 1.2 | 2.3 | 0.4 |  |
|  | 11.6 | 8.5 | 9.4 | 11.0 | 7.9 | 3.5 |
|  | 114.0 | 13.4 11.9 | 12.0 | 16.8 14.0 | 11.8 | 10.4 |
|  | 11.9 | 11.0 | 11.6 | 12.9 | 10.6 | 7.6 |
|  | 26.3 | 32.7 | 32.8 | 29.8 | 35.4 | 35. 5 |
|  | 15.9 | 17.8 | 15.8 | 11.5 | 19.0 | 28.2 |
|  | 4.5 | 3.7 | 2.9 | 1.8 | 3.7 | 5.6 |
|  | frimale. |  |  |  |  |  |
| All ages. <br> Under 5 Fears. | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
|  | 2.6 | 1.0 | 1.1 | 1.7 | 0.5 |  |
| 5 to 9 years. | 11.8 | 8.2 | 8.8 | 10.2 | 7.7 | 2.8 |
| 10 to 14 years. | 14.8 | 12.6 | 13.4 | 15.4. | 21.5 | 8.5 |
| 15 to 19 years. | 13.6 | 11.5 | 11.8 | 14.8 | 9.1 | 9.9 |
| 20 to 24 years. | 10.7 | 9.6 | 10.4 | 12.1 | 9.1 | 6.9 |
| 25 to 44 years. |  |  |  |  |  | 41.4 |
| 45 to 64 years. 65 years or over | 15.1 4.5 | 17.7 4.4 | 16.3 3.6 | 12.5 2.2 | 19.2 4.7 | 24.9 5.7 |

${ }^{2}$ Based upon the population whose age at enumeration was reportod. ${ }^{1}$ Includes those for whom the age when hearing was lost was not reported. Per cent distribation of those whose hearing was lost at 10 years of age or over not Shown, as base is less than ino in each case. statement as to the exact ago.
The age distribution of the congenitally deaf shows no very important difference for the two sexes. Among those whose deafness was acquired, however, the females were slightly older than the males, the percentage 25 years of age or over being 57.1 and 54.2, respectively, and the percentage of children under 15 being 21.8 and 22.9 , respectively; the proportion of old people 65 or over was 4.4 per cent for females and 3.7 per centfor males. These figures would seem to confirm the suggestion already made that the greater longevity of females as compared with males may manifest itself more strongly in the case of the adventitiously than of the congenitally deaf. It should be noted, however, that meningitis, which is probably the most difficult to control of any of the leading causes of deafness, is somewhat more important as a cause for males than for females, and that for this reason the increase in the control of communicable diseases in general may have reduced the number of females who annually become deaf-mutes to a somewhat greater extent relatively than the number of males, with the result that the former represent the survivors of former years in a larger degree than the latter.

Table 56 shows the per cent distribution according to age when hearing was lost of the native and foreignborn white and the Negro deaf-mutes in 1910 for whom special schedules were returned, classified according to age at enumeration.

${ }_{2}$ Tncludes those for whom the age when hearing was lost was not reported.
${ }^{2}$ Includes those reported as having lost their hearing in infancy but without statement as to the exact age.
${ }^{8}$ Includes the small number whose age at enumeration was not reported.
After the age of 10 the variations in the percentages for the foreign-born whites are on the whole similar to those in the percentages for the native whites, except that the proportion congenitally deaf among the foreign-born whites 15 to 19 years of age was much higher than among those from 10 to 14. A like increase is shown for Negroes; but the decrease shown by the age group " 25 to 44 years" for the other two classes is less pronounced in the case of the Negroes, for whom the variations in the percentages for the age groups between 15 and 64 years are comparatively slight. The precise reason for these differences is, however, difficult to determine.
It will be observed that in the first age group for which comparisons are significant (" 10 to 14 years") the difference in the percentage congenitally deaf for Negroes and native whites (45.4 and 41.6, respectively)
is relatively small, but that it shows a general tendency to increase with each succeeding age group, until among those 45 to 64 years of age the percentages are 58.9 and 35.6 , respectively. There is some doubt whether the actual changes in the number of persons annually becoming deaf respectively from congenital and from adventitious causes can have differed for the two classes sufficiently to account for the variations just pointed out, and it seems very probable that the death rate among the adventitiously deaf may be considerably higher for the Negroes than for the whites.

Table 57 shows the age distribution of the native white, foreign-born white, and Negro deaf-mutes in 1910 for whom special schedules were returned, classified according to age when hearing was lost.

| Table 57 <br> AGE AT ENUMERATION. | PER CENT DISTRIBUTION 1 OF DEAF AND DUMB POPULATION IN 1910 FOR WHOM SPECTAL SCHEDULES WERE RETURNED WHOSE DEAFNEAS WAg- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Con-genital. | Acquired. ${ }^{\text {a }}$ |  |  |  |  |
|  |  | Total. | At less than 5 years ofage. |  |  | At 5 to9 yearsof age. |
|  |  |  | Total: | Less than2 years. | 2 to 4 |  |
| All ages .................... | NATIVE WHITE. |  |  |  |  |  |
|  | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Under 5 years 5 to 9 years | 2.8 | 1.1 | 1.3 | 2.1 | 0.5 |  |
|  | 12.6 | 9.0 | 9.6 | 11.1 | 8.2 | 3.6 |
| 10 to 14 Jears | 14.8 | 13.3 | 13.9 | 16.3 | 11.7 | 9.0 |
| 15 to 19 years | 14.0 | 12.2 | 12.5 | 14.7 | 10.6 | 10.3 |
| 20 to 24 years | 11.3 | 10.8 | 11.4 | 12.9 | 10.2 | 7.3 |
| 25 to 44 years | 25.7 | 33.0 | 32.9 | 29.5 | 36.3 | 37.0 |
| 45 to 64 years | 14.7 | 17.0 | 15.4 | 11.5 | 18.4 | 27.4 |
| 65 years or over .............. | 4.0 | 3.6 | 3.1 | 1.8 4.1 |  | 5.5 |
|  | FOREIGN-BORN WHETE. |  |  |  |  |  |
| All ages | 100.0 | 100.0 | 100.0 | 100.0 | 160.0 | 100.0 |
| Under 5 years 5 to 9 years 10 to 14 years <br> 15 to 19 years <br> 20 to 24 years <br> 25 to 44 years <br> 45 to 64 years <br> 65 years or over | 0.2 | 0.2 | 0.3 | 1.0 |  |  |
|  | 7.0 | 3.8 | 4.7 | 4.1 | 5.0 | 0.8 |
|  | 6.7 | 8.2 | 8.1 | 11.5 | 6.4 | 8.8 |
|  | 9.4 | 7.5 | 7.5 | 9.2 | 6.7 | 8.3 |
|  | 6.0 | 5.8 | 6.3 | 7.5 | 5.9 | 4.6 |
|  | 32.1 | 41.5 | 42.3 | 42.7 | 42.0 | 43.8 |
|  | 27.8 | 28.3 | 25.2 | 19.3 | 28.0 | 27.1 |
|  | 10.9 | 6.6 | 5.6 | 4.7 | 6.0 | 6.7 |
|  | NEGRO. |  |  |  |  |  |
| All ages. | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Under 5 years | 1.2 | 0.27.4 | 0.39.1 | 1.0 |  |  |
| 5 to 9 years. | 7.3 |  |  | 12.1 | 7.7 | 8.7 |
| 10 to 14 years | 13.316.4 | 20.2 | 27.3 | 26.3 | 28.0 | 8.313.8 |
| 15 to 19 years |  | 14.7 | 16.4 | 18.2 | 15.9 |  |
| 20 to 24 years | 16.230.4 | 13.4 |  | 23.2 | 26.4 | 13.8 12.8 |
| 25 to 44 years |  |  | 25.5 |  |  | 36.7 |
| 45 to 64 years | 30.4 12.8 | 11.3 | 6.30.3 | 4.01.0 | 6.6 | 19.35.5 |
| 65 years or over | 2.5 | 4.3 |  |  |  |  |

1 Based upon the population whose age at enumeration was reported. ${ }^{2}$ Includes those for whom the age when hearing was lost was not reported. Per cent distribution of those whose hearing was lost at 10 years of age or over not
shown, as base is less than 100 in each case. shown, as base is less than 100 in each case.
out statement as to the exact age.
The Negroes constitute an exception to the rule that the congenitally deaf comprise more old people than the adventitiously deaf, the percentage 65 or over being only 2.5 for the former, as compared with 4.3 for the latter. This, however, is due mainly to the relatively high number among those whose deafness was acquired of persons who lost their hearing after
the completion of their fifth year, and more especially after the first decade of life (see Table 46, p. 45); among those who lost it during the first five years of life, only 0.3 per cent had reached the age of 65 , while none of those who reported it as lost between the ages of 2 and 4 had attained this age. The proportion in all the other age groups into which persons of adult life are divided was, however, distinctly higher for the congenitally deaf than for those whose deafness was acquired.

In regard to the relative number of children among both the congenitally and the adventitiously deaf there is a marked contrast between the Negroes and the native whites. Of the Negroes who reported themselves as born deaf, only a little more than onefifth ( 21.8 per cent) were children under 15, as compared with considerably more than one-fourth ( 30.2 per cent) of the native whites. On the other hand, 27.9 per cent of the Negroes whose deafness was acquired were under 15 years of age, as compared with 23.4 per cent of the native whites. When the comparison is confined to thosewholost theirhearing during the first five years of life, the contrast is even more marked, 36.7 per cent of the Negroes being children, as compared with 24.8 per cent of the native whites. These differences suggest that the death rate among the adventitiously deaf may be much higher relatively to that for the congenitally deaf among the Negroes than among the native whites. This is by no means improbable, as white children suffering from the diseases usually causing deafness presumably receive in most cases better medical treatment than do Negro children, so that even when deafness follows, it is less apt to be accompanied by other sequelae likely to shorten life. This greater care in the case of white children may also account for the comparatively small difference in the relative number of old people among the congenitally and the adventitiously deaf in the case of the native whites; it will be observed that when the comparison is made by individual age periods those who lost their hearing during the first two years of life constitute the only class of the adventitiously deaf having a lower percentage of old people than the congenitally deaf.

The difference in the proportion of old people among the congenitally and the adventitiously deaf is especially marked among the foreign-born whites, for whom the percentages 65 or over were 10.9 and 6.6, respectively. In this nativity class, in fact, the percentage of old people for the congenitally deaf exceeds that for any class of the adventitiously deaf shown separately in Table 57.

General Table 11 (p. 126) gives for each geographic division the number of deaf and dumb persons in 1910 for whom special schedules were returned who were respectively under 20 years of age, 20 to 64 years of age, and 65 years of age or over, classified according to age when hearing was lost.

Relation to marital condition.-General Table 12 (p. 127) shows the distribution according to marital condition of the male and female deaf and dumb population in 1910 for whom special schedules were returned, classified according to age when hearing was lost. Table 58 shows this distribution by percentages for those 15 years of age or over, classified according to age when hearing was lost.

| Table 58 <br> agi when hearing was lost. | PER CENT ${ }^{1}$ OF TOTAL DEAF AND DUMB POPULATION 15 FEARS OF AGE OR OVER IN 1910 FOR Whom special sceedules were returned WHO WERE- |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Single. | Married, widowed, or divorced. |  |  |  |
|  |  | Total. | Married. | Widowed. | $\underset{\text { vorced. }}{\text { Di- }}$ |
| Total <br> Deafness congenital $\qquad$ <br> Deafness acquired ${ }^{2}$ $\qquad$ | male. |  |  |  |  |
|  | 68.2 |  | 29.4 | 2.0 | 0.4 |
|  | $\begin{array}{r} 75.5 \\ 63.9 \end{array}$ | 24.536.1 | 22.333.6 | 1.92.1 | 0.30.4 |
|  |  |  |  |  |  |
| At age ofLess than 5 years ${ }^{3}$........ <br> Less than 2 years.... <br> 2 to 4 years. <br> 5 to 9 years. <br> At age not reported. | $\begin{aligned} & 64.7 \\ & 70.2 \\ & 60.8 \\ & 54.9 \\ & 78.4 \end{aligned}$ | 35.329.839.245.121.6 | 32.727.336.642.819.5 | 2.11.72.22.22.2 | 0.50.80.30.1 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  | FEMALE. |  |  |  |  |
| Total........................ | 58.6 | 41.4 | 35.7 | 5.4 | 0.3 |
| Deafness congenital <br> Deafness acquired 2 | 68.3 | $\begin{aligned} & 31.7 \\ & 47.3 \end{aligned}$ | 26.741.2 | $\begin{aligned} & 4.8 \\ & 5.8 \end{aligned}$ | 0.20.4 |
|  | 52.7 |  |  |  |  |
| At age of- <br> Less than 5 years ${ }^{3}$. $\qquad$ <br> Less than 2 years.... <br> 2 to 4 years........... <br> 5 to 9 years. <br> At age not reported. $\qquad$ | 52.6 | $\begin{aligned} & 47.4 \\ & 39.8 \\ & 53.3 \\ & 52.2 \\ & 32.2 \end{aligned}$ | 41.934.847.544.326.0 | 5.24.75.67.46.3 | 0.30.30.30.5 |
|  | 60.2 |  |  |  |  |
|  | 46.7 |  |  |  |  |
|  | 47.8 |  |  |  |  |
|  | 67.8 |  |  |  |  |

1 Percentages are based upon the population whose marital condition was reported, including the small number whose age at enumeration was not reported,
2 Includes those for whom the age when hearing was lost was not reported Per cent distribution of those whose hearing was lost at 10 years of age or over not shown, as base is less than 100 . statement as to the exact age.
This table reveals some interesting differences in the extent to which the deaf-mutes who reported hearing as lost at the different ages have married. Both for males and for females the proportion is much higher for the adventitiously deaf than for the congenitally deaf; only 24.5 per cent, or one-fourth, of the males, and only 31.7 per cent, or less than one-third, of the females 15 years of age or over who reported themselves as born deaf had married at the date of the census, as compared with corresponding percentages of 36.1 and 47.3 in the case of the adventitiously deaf. Moreover, among the adventitiously deaf the proportion tends to increase with the age when hearing was lost. Among those who became deaf during the first two years of life 29.8 per cent of the males and 39.8 per cent of the females had married, figures which are distinctly higher than the corresponding percentages for the congenitally deaf. Among those who lost their hearing between the ages of 2 and 4 the percentages were considerably higher (39.2, or two-fifths,
and 53.3, or more than one-half, respectively). In the case of males the percentage shows a further increase for those who lost their hearing between the ages of 5 and 9 (to 45.1); but in the case of females it was slightly smaller (52.2) for those who lost their hearing in this age period than for those who lost it in the preceding period.

To a certain extent these differences are due to differences in age distribution; thus only 27.8 per cent of the congenitally deaf 15 years of age or over returning schedules had reached the age of 45 , or in other words had passed the period when most people have married, as compared with a corresponding percentage of 36.9 for those who had lost their hearing during the second quinquennium of life, so that normally the latter would be expected to comprise a much higher proportion of persons who had married than the former. That this is not the sole factor, however, appears from the circumstance that the percentage married, widowed, or divorced was distinctly higher for persons who had lost their hearing during the first two years of life than for the congenitally deaf, although the proportion who had reached the age of 45 among those 15 years of age or over was not so great for the former group (19.6 per cent as compared with 27.8 per cent). The fact that the adventitiously deaf who lost their hearing during the first two years of life have married to a greater extent than the congenitally deaf is possibly explained in part by the circumstance that the former class comprises a certain number of persons whose deafness was only partial, and who in all probability for this reason were able to acquire a greater facility in communication, especially by the oral method, than the congenitally deaf, whose deafness is probably in most cases total. The higher percentages shown for the two succeeding periods are in the main due to the fact that those losing hearing at these ages had already to a greater or less extent learned to speak and for that reason would presumably acquire a greater degree of facility in communication than those who were entirely dependent on instruction received after the loss of their hearing.

## CAUSE OF DEAFNESS.

The subject of the cause of deafness is naturally one of the most important to be considered in any statistical study of deaf-mutism, as returns on this point should give a fairly accurate indication as to the lines along which measures for the prevention of deafmutism should be directed in order to bring about the maximum reduction in the number of persons who are suffering from this infirmity. Unfortunately the value of statistics on this subject which are obtained by the correspondence method is to some extent impaired by the fact that in many instances the persons returning the schedules are ignorant of the actual cause of their deafness and either fail to answer the inquiry as to cause or else give an answer that is
obviously inaccurate or conjectural. This is by no means surprising, since in a large number of cases they have undergone no medical examination and have never received medical treatment for the ear disorder which occasioned loss of hearing, so thatunless their deafness was the direct and immediate consequence of some other disorder they would have practically no means of knowing the cause. In fact, so far as the congenitally deaf are concerned, the returns shed practically no light upon the primary cause of deafness, as those who reported themselves as deaf from birth almost invariably stated that the cause was unknown, the only exceptions being a few persons who reported that their deafness was due to malformations or to traumatism during delivery; but it is questionable whether a canvass made under medical supervision would be much more successful in obtaining information as to the specific cause of deafness for this class of deaf-mutes, as congenital deafness is probably in the great majority of instances due to conditions affecting the internal ear, the precise nature of which only an autopsy could disclose. There were also a large number of indefinite and inaccurate returns from those whose deafness was acquired; inasmuch, however, as a comparatively small number of causes are responsible for the great majority of cases of acquired deafness, and as these causes, furthermore, are generally known and recognized and, so far as they induce deafness, usually make their connection with the loss of hearing readily apparent, returns as to the cause in this class of cases should on the whole be reasonably significant in indicating the causes of greatest importance, even where it is necessary to depend on the statements of the deaf persons themselves or their relatives or friends, who usually have no acquaintance with aural pathology.

It is obviously not to be expected that returns obtained in the manner under consideration should indicate the precise nature of the lesion causing deafness. This, however, does not materially affect the value of the statistics, except possibly from the standpoint of the medical specialist, for the reason that adventitious deafness, which of course is the only form in any considerable measure susceptible of control, results from idiopathic conditions in such a small minority of instances that a knowledge of the exact nature of the morbid conditions producing deaf-mutism is much less important for an effective campaign for its reduction than is a knowledge of the etiology of these conditions. Moreover, since the probable effect upon the ear of the principal causes producing deafness is known with a reasonable degree of accuracy, it is possible to classify the returns in such a way as to give an approximately correct indication of the part of the ear affected. In tabulating the returns both for 1900 and for 1910 such a classification was adopted, the causes assigned being grouped under three broud heads, comprising those which ordinarily or in the majority of instances affect, respectively, the external, the mid-
dle, and the internal car; those affecting the middle ear were further divided into suppurative and nonsuppurative affections, and those affecting the internal ear into causes affecting, respectively, the labyrinth, the auditory nerve, and the brain center for hearing. In addition, there were, of course, a considerable number of cases where the answer to the inquiry as to cause was too indefinite or obviously inaccurate to permit classification. While a classification on this basis is not absolutely accurate, owing to the circumstance that even among the returns assigning a cause which actually occasions deafness some undoubtedly represented conjectures not in accordance with fact, and the further circumstance that some causes may affect more than one part of the ear, it probably gives a reasonably correct indication of the relative frequency with which deafness results from affections of the different parts of the ear.

Table 59 shows the distribution according to reported cause of deafness of the total and the male and female deaf and dumb population in 1910 for whom special schedules were returned. In this table the congenitally deaf are excluded by reason of the fact that a definite return as to cause of deafness was made in so few instances and the difference in the importance of this class of deaf-mutes for the two sexes is on the whole so slight that their inclusion in the tabulation would impair the value of comparisons as to the causes producing adventitious deafness to a considerable extent without being compensated by any commensurate gain.

The unsatisfactory character of the returns appears plainly from the circumstance that for more than onefourth of the total number of adventitious deafmutes for whom schedules were returned ( 28.6 per cent) the cause of deafness was either not given or else was stated so indefinitely as not to permit classification according to the part of the ear presumably affected. As compared with the results obtained in connection with the census of the blind taken at the same time as that of the deaf and dumb, however, this is a fairly satisfactory showing, since 46 per cent, or nearly one-half, of the blind who returned schedules either failed to indicate any cause whatever or made a return too indefinite or obviously inaccurate to permit classification under any specific head.
Of the persons who made a sufficiently specific answer to the inquiry relating to cause of deafness to permit a classification as to the part of the auditory apparatus probably affected, the majority reported a cause ordinarily affecting the middle ear, those reporting a cause of this nature representing 38.8 per cent, or nearly two-fifths, of the total number whose deafness was acquired, and more than one-half ( 54.4 per cent) of the total number returning a classifiable cause. Of these by far the greater proportion ( 82.3 per cent, or about five-sixths) were cases where the cause reported was one which usually operates by producing suppuration, such cases representing considerably more
than two-fifths ( 44.7 per cent) of those in which a classifiable cause was returned. Persons returning a cause probably affecting the internal ear constituted nearly one-third ( 31.5 per cent) of the total number of adventitious deaf-mutes, and more than two-fifths (44.2 per cent) of those stating a classifiable cause. Nearly all ( 92.7 per cent) of these, representing about two-fifths ( 41 per cent) of the total number returning a classifiable cause, reported causes probably affecting the auditory nerve. As would be expected, there were comparatively few instances (64; or less than 1 per cent of the total) in which the cause reported was one affecting the external ear, and it is possible that in some of these the return does not represent the actual cause.

| Table 59 <br> reported cajse of deafness. | DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED WHOSE DEAFNESS WAS ACQUIRED: 1910.1 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Tot |  | Mal |  | Female. |  | $\begin{aligned} & \text { Males } \\ & \text { Par } 100 \\ & \text { fol } \\ & \text { maleser } \end{aligned}$ |
|  | Num- | Per cert distri- bur- tion. | $\begin{aligned} & \text { Num- } \\ & \text { ber. } \end{aligned}$ | Per cent distri but tion. |  | Per <br> cent <br> distri- <br> bur <br> tion |  |
| All causes | 11,620 | 100. | 6,479 | 100.0 | 5,141 | 100.0 | 126.0 |
| Causes affecting t | 64 | 0.6 | 39 | 0.6 | 25 | 0.5 | ( ${ }^{\text {a }}$ |
| Causes affecting th | 4,507 | 38.8 | 2,331 | 36.0 | 2,17 | 42.3 | 107.1 |
| Causes producing suppurative condition. | 3,708 | 31.9 | 1,925 | 29.7 |  | 34.7 |  |
| Scarlet fiever | 2,005 |  |  | 16. 3 | 248 | 18.4 | 11.5 |
| Measles. | -525 | 4.5 | ${ }_{2}^{262} 8$ | 4.0 | ${ }_{84}^{283}$ | 5.1 1.6 | \%9.6 |
|  | 102 | 0.9 | -62 | 1.0 | 40 | O2.8 |  |
| Abscess in the hea | 329 | 2.0 | 119 | 2.8 | 118 | 3.2 | 110.2 10.8 |
| All other causes producing suppurative condition...... | 324 | 2.8 | 160 | 2.5 | 164 | 3.2 | 97.6 |
| Causes not |  |  |  |  |  |  |  |
| Whooping cough | ${ }_{301} 8$ | 6.6 2.6 | 149 | ${ }_{2.2} .1$ | ${ }_{157} 3$ | ${ }_{3.1}{ }^{2}$ | ${ }^{101.7}$ |
| Catarth. | 186 186 | ${ }_{1.3}^{1.6}$ | ${ }_{82}^{95}$ | 1.5 | ${ }_{74} 9$ | 1.8 1.4 | (\%) |
| All other cause not prodic- | 146 | 1.3 | 77 | 1.2 | 69 | 1.3 | (2) |
| All other causes affecting the middle ear | 10 | 0.1 | 8 | 0.1 | 2 | () | () |
| Causes affecting the internal ear.. | 3,666 | 31.5 | 2,217 | 34.2 | 1,449 | 28.2 | 153. |
| Causes affectiog the labyrinth.. |  | 1.9 |  |  |  |  |  |
| Malarial fever and quinine. | $\begin{gathered} 128 \\ \hline 85 \end{gathered}$ | 1.1 | 84 52 | 1.3 0.8 | ${ }_{33}^{44}$ | 0.9 | (3) |
| All other causes affecting the labyrinth. | 13 | 0.1 | 7 | 0.1 | 6 | 0.1 | ( ${ }^{\text {( }}$ |
| Causes affecting the auditory nerve. | 3,399 | 29.3 | 2,048 |  |  | 26.3 | 151.6 |
| $\frac{\text { Maningitis, }}{\text { Braln }}$ (ever. | 1,827 | 15.6 | 1, ${ }_{54}$ | 18.5 | ${ }_{343}^{74}$ | 14.4. |  |
| Typhoid fove | 384 | 3.3 | 224 | 3.5 | 160 | . | 140.0 |
| All other causes aifocting the auditory nerve. | 102 | 1.5 0.9 | 109 | 0.9 | 65 | 1.3 0.8 | (2) |
| All other causes affecting the internal ear. | 41 | 0.4 | 26 | 0.4 | 15 | 0.3 | (3) |
| Combination of different classes of causes | 55 | 0.5 | 27 | 0.4 | 28 | 0.5 | ) |
| ncl | 2,336 | 20.1 | 1,323 | 20.4 | 1,013 | 19.7 | 130.6 |
| Falls and b | - 87 | 5.1 |  | 5.0 |  |  |  |
|  | 1,692 | 0.5 14.6 | 38 969 | ${ }^{0.6}$ | ${ }_{73} 19$ | $0.4$ | 130.8 |
| Cause unknown or not reported | 982 | 8.5 | 542 | 8.4 | 450 | 8.8 | 120.4 |

1 Includes those for whom the age when hearing was lost was not reported. ${ }^{1}$ Ratio not shown where number of females is less than 100.
an than one-bonth of 1 per cent.
Of the individual causes reported, scarlet fever was the most important, being specifically named as cause
by 2,005 persons, or more than one-sixth ( 17.3 per cent) of the total number of adventitious deaf-mutes returning schedules, and noarly one-fourth ( 24.2 per cent) of those reporting a classifiable cause. Meningitis ranked next, being reported by 1,812 persons, or nearly one-sixth ( 15.6 per cent) of the total number whose deafness was acquired and more than one-fifth ( 21.9 per cent) of those reporting classifiable causes; while the returns did not permit of an accurate segregation between the cases due to cerebrospinal fever and those due to simple meningitis, the great majority were unquestionably due to the former cause. Brain fever ranked third, being reported by 927 persons. It is probable, however, that in the great majority of instances "brain fever" is in reality merely another name for meningitis, in which case meningitis is actually the most important cause, the combined total for these two causes representing nearly one-fourth ( 23.6 per cent) of the total for all causes for the adventitiously deaf and practically one-third (33 per cent) of the total for all classifiable causes.

Measles, which was reported as cause by 525 persons, or 4.5 per cent of the total number of deaf-mutes returning schedules whose deafness was acquired, ranks next to brain fever among the causes which could be classified according to the part probably affected. A somewhat larger number, however, (587) reported the cause as falls or blows, which could not be classified on this basis. It is probable that the returns giving measles as cause of deafness fall short of the true figure to a much greater extent than is the case with any of the other important causes. This is due to the fact that in a large proportion of the cases where measles results in deafness, loss of hearing does not actually occur until a considerable period of time has elapsed, so that the connection between the disease and the deafness is much less obvious than in cases where the cause of deafness is a disease like meningitis or scarlet fever, in which the destruction of hearing, when it occurs, is usually rapid. Typhoid fever and abscess in the head were the only other definite causes returned in as many as 3 per cent of the cases; it is probable, however, that abscess in the head in the majority of cases merely represents a result of the contagious or infectious diseases already referred to as causing deafness.

The total number of cases in which deafness was reported as due to meningitis (including brain fever), scarlet fever, measles, diphtheria, or typhoid fever, the causes most generally recognized as producing deaf-mutism, was 5,819 , representing 70.2 per cent, or more than two-thirds, of the total number in which a classifiable cause was returned. This fact brings out clearly the great advance which would be effected in the direction of eliminating deaf-mutism by progress in the control of communicable diseases.
The distribution according to cause of deafness of the male and female deaf-mutes whose deafness was ac-
quired differed to some extent. The proportion reporting deafness as due to a cause ordinarily affecting the middle ear was distinctly higher for females than for males ( 42.3 per cent as compared with 36 per cent), while the proportion reporting a cause affecting the internal ear was lower ( 28.2 per cent as compared with 34.2 per cent). Scarlet fever and measles appear to be somewhat more important as causes for females than for males, being reported, respectively, by 18.4 and 5.1 per cent of the total for the former and 16.3 and 4 per cent for the latter, while meningitis and brain fever were both more important for males, the pereentage for the former cause being 16.5 for males and 14.4 for females, and that for the latter 9 for males and 6.7 for females. Meningitis, in fact, which is outranked by scarlet fever for both sexes combined and for females among the causes as returned, was reported more frequently than any other cause by males.

The figures in the last column of Table 59, which gives the number of males per 100 females among those returning the different causes, show that the most important factor in the great excess of males among adventitious deaf-mutes is the high ratio among those reporting a cause affecting the internal ear, and more especially a cause affecting the auditory nerve. The number of malos per 100 females reporting causes affecting the auditory nerve was 151.6, as compared with 126 for all causes combined; a very high excess of males is shown for those reporting each of the three causes of this class for which the ratio is given in the table, the number of males per 100 females being 170.3 for those reporting brain fever, 144.2 for those reporting meningitis, and 140 for those reporting typhoid fever. On the other hand, among those reporting scarlet fever as the cause the ratio was only 111.5 to 100 , andin the case of those reporting measles and diphtheria the number was practically the same for the two sexes.
These differences between the sexes in regard to the relative number of males and females, respectively, reporting the leading causes of deafness appear to correspond in some measure to differences in the mortality rate from the same causes among male and female children, respectively. Statistics on this point are not available for the United States; Table 60, on the following page, however, shows for England and Wales the average annual death rate for the period 1911-1913 among male and female children under 10 years of age from the five diseases which are generally recognized as the leading causes of deaf-mutism.
The death rate from meningitis, which in Table 59 shows a higher excess of males among those reporting it as cause of deafness than any other of the causes shown in Table 60, was considerably higher relatively for male than for female children in England and Wales during the period covered by the table. The death rate from scarlet fever was practically the same for the two sexes; by reference to Table 59 it will be seen that
while there was an excess of males among those reporting scarlet fever as cause of deafness, this excess was relatively slight as compared with that among those reporting meningitis. In the case of measles, however, which was reported as cause of deafness by practically the same number of males and of females, Table 60 shows a somewhat higher death rate for males, although the excess is much less relatively than in the case of meningitis. On the whole, Tables 59 and 60 lend further support to the supposition that the excess of males among the deaf and dumb is in some measure due to a greater susceptibility of that sex to the infectious and contagious diseases which occur most frequently in childhood.

Table 60
VERAGEANNUAL DEATH RATE OF CHILDREN UNDER 10 YEARS OF AGE PER 100,000 LIVING at the same age in ENGLAND AND WALES 1011-1913. ${ }^{1}$
CaUSE OF DEATH.

|  | Male. | Female. |
| :---: | :---: | :---: |
| Measles. | 162.1 | 149.7 |
| Scarlet fever | 22.1 | 22.3 |
| Diphtheria and croup | 52.9 | 54.9 |
| Meningitis.... | 45.6 | 39.1 |
| Typhoid lever. | 1.7 | 2.0 |

${ }^{1}$ In the population employed as basis for these rates the number of births is used instead of the number of children under 1 year of age.

While an inquiry as to cause of deafness was included in the special schedule at each census from 1880 to 1910, the differences in the class of deaf covered by the statistics at the respective censuses render comparisons of the returns on this subject of somewhat uncertain significance. For purposes of reference, however, Table 61 is presented, showing the number at each census returning certain of the more important causes of deafness. The figures for 1890 do not include the deaf and dumb Indians, Chinese, or Japanese, for whom apparently no returns were secured as to cause of deafness; but owing to the comparatively small number of these races returning schedules in 1910, this omission does not materially affect the comparability of the figures.

The most significant feature of Table 61 is probably the regular decrease from census to census in the proportion of cases in which scarlet fever was reported as cause of deafness. The large decrease in 1890 as compared with 1880 is due mainly to the fact that the tabulation for cause of deafness at the census of 1880 appears to have been confined to those making a reasonably definite answer to the inquiry as to cause of deafness, who represented less than one-half of the total number whose deafness was acquired, whereas for 1890, as well as 1910, the figures relate to the total number whose deafness was not reported as congenital, regardless of the return as to cause. The fact, however, that the two censuses since 1890 have also shown decreases in the proportion of cases credited to scarlet fever makes it seem probable that this
cause has actually decreased in importance to some extent. Meningitis shows a considerable decrease in relative importance as a cause of deafness in 1910 as compared with 1880; this decrease, however, was due entirely to a decrease between 1880 and 1890, the two following censuses each showing a small increase. In view of what has just been said as to the difference in the basis of tabulation at the respective censuses, and as there is also reason for believing that there may have been a difference in classification at the respective censuses which affected the returns for this cause, it is questionable whether there has actually been such a falling off in the importance of meningitis as a cause as a comparison of the figures for 1910 and 1880 would indicate; on the other hand, it seems more likely that it has actually, as the figures for the later censuses would appear to indicate, been increasing to some extent in relative importance, by reason of the fact that it is less susceptible of control than other important oauses of deafness, such as scarlet fever and measles. The proportion of cases credited to measles shows no very great change during the period covered by the table; this is perhaps accounted for by the fact that the serious character of this disease does not appear to have been so generally recognized as that of diseases like scarlet fever, diphtheria, and meningitis, so that the same effort has not been made for its control, while it is further probable that any increase in the degree of accuracy of the returns as to cause would affect measles to a greater extent than the other important causes for the reason already stated that in a very large proportion of the cases where measles causes deafness the lapse of time between the attack of the disease and the loss of hearing is so great that the causal connection is not perceived.

| Table 61 <br> meported cause of deafness. | deaf and dumb population of fhe united states Whose deafness was acquired. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $1910{ }^{1}$ |  | $1900{ }^{2}$ |  | $1890{ }^{\text {\% }}$ |  | 18804 |  |
|  | $\begin{gathered} \text { Num- } \\ \text { ber. } \end{gathered}$ | Per cent dis- tri- bu- tion. | $\begin{aligned} & \text { Num- } \\ & \text { ber. } \end{aligned}$ | $\begin{gathered} \text { Per } \\ \text { cent } \\ \text { dis- } \\ \text { tri- } \\ \text { bui- } \\ \text { tion. } \end{gathered}$ | Number. | $\begin{aligned} & \text { Per } \\ & \text { cent } \\ & \text { dis- } \\ & \text { diri- } \\ & \text { bua- } \\ & \text { tion. } \end{aligned}$ | $\begin{aligned} & \text { Num- } \\ & \text { ber. } \end{aligned}$ | $\begin{gathered} \text { Per } \\ \text { cent } \\ \text { cent } \\ \text { dir- } \\ \text { tri- } \\ \text { buon. } \end{gathered}$ |
| Total | 11,620 | 100.0 | 17,932 | 100.0 | 23,696 | 100.0 | 10,187 | 100.0 |
| Scarlet fever | 2,005 | 17.3 | 3,561 | 19.9 | 4,799 | 20.3 | 2,695 | 26.5 |
| Measles. | 525 | 4.5 |  | 5.2 | 1,021 | 4.3 | 48 | 4.4 |
| Diphtheris |  | 1.4 | ${ }_{2}{ }^{(5)} 524$ | (t) | 3,222 | 0.9 | 280 | 0.7 |
| All other.. | 7,112 | 61.2 | 10,915 | 60.9 | 14,376 | ${ }_{60.7}^{13}$ | 4,118 | 40.4 |

${ }^{1}$ Deai and dumb population for whom special schedules were returned. Figures include those for whom the age when hearing was lost was not reported. of age when hesring was lost.
Weaf persons unable to speak at all. Figures include those for whom the age whem hearing was lost was not reported.
ing was lost, who reported cause of deafness as 16 years of age or over when hearing was lost, who reported cause of deafness. While the report for 1880 does not state specifically that the figures relate only to persons whose deafness was acquired
the number of congenital deaf-mutes, if any, who were included is probebly the number of congenital deaf-mutes, if any, who were included is probsbly too Geparate figures for diphtheria not available.
Ireland is the only foreign country publishing statistics as to cause of deafness which are at all comparable with those for the United States, and even for
this country satisfactory comparisons can be made for only a few of the more important causes. Table 62, however, shows the number of deaf and dumb persons in Ireland in 1911 reporting certain of the more important causes, with the percentage which they represented of the total.

| Table 62REPORTED Catse of deafness. | DEAF AND DUMB POPULATION OF IRELaND WHOSE DEAFNESS WAS ACQUIRED: 1911. |  |
| :---: | :---: | :---: |
|  | Number. | Per cent distribul tion. |
| All causes. | 725 | 100.0 |
| Measles. | 35 | 4.8 |
| Scarlet fever. | 137 | 18.9 |
| Meningitis.. | 50 | 6.9 |
| Cerebrospinal fever | 18 | 2.5 |
| Hydrocephalus.... | 23 | 3.2 |
| Falls........ | 59 | 8.1 |
| All other. | 403 | 55.6 |

In Ireland, as in the United States, scarlet fever was the cause of deafness most frequently reported, being returned in a slightly larger proportion of cases than in the United States ( 18.9 per cent as compared with 17.3 per cent). Meningitis, however, was much less important in Ireland than in the United States; of the deaf and dumb in the former country whose deafness was acquired, only 9.4 per cent, or less than one-tenth, reported meningitis or cerebrospinal fever as cause of deafness, whereas in the United States meningitis was reported as cause by 15.6 per cent, or nearly one-sixth, of the total, and in addition this was probably the actual cause of deafness in a considerable proportion of the cases where deafness was ascribed to "brain fever," a cause not shown in the published returns for Ireland. The proportion of cases credited to measles was practically the same for the two countries ( 4.8 for Ireland and 4.5 for the United States).

The Austrian Statistical Central Commission also formerly published statistics as to the cause of deafness for inmates of institutions for deaf-mutes in its annual report on health statistics. The figures for 1906, the last year for which the publication mentioned presented statistics relating to the deaf and dumb, are given in Table 63.


Scarlet fever is apparently of much less importance as a cause of deafness in Austria than in the United States, being reported as cause for only 10.9 per cent (one-tenth) of the deaf-mutes in deaf-mute institutions in the former country in 1906. The largest class with respect to cause shown in the table is that comprising persons whose deafness was attributed to "Other diseases of the brain and nerves," who constituted 18.9 per cent, or a little less than one-fifth, of the total; it is probable that persons whose deafness was due to meningitis were largely included under this head. The proportion reporting measles as cause was 3.9 per cent, or somewhat less than in the United States.

Owing probably to the difficulty of getting accurate returns as to cause of deafness, the schedule which in Germany must be filled out for every deaf-mute child of school age makes no direct inquiry as to cause. Among a number of inquiries to be answered upon the admission of the child to an institution for the doaf and dumb, however, is one which asks, "During or in direct connection with what disease did deafness become noticeable?", several of the more common causes of deafness being specifically indicated. The results obtained from this inquiry for the period beginning January 1, 1902, and ending June 30, 1905, are of some interest and are shown in Table 64; it must be borne in mind, however, that owing to the difference in the form of the inquiry and the limitation of the statistics to a relatively small proportion of the deaf and dumb, comparisons with the United States are of uncertain significance.

| Table 64 | DEAF-MUTE CHILDREN or school age in inSTITUTIONS FOR DEAFMUTES IN GERMANY WHOSE DEAFNESS BECAME NOTICEABLE DURING OR APTER DIS HASE OR INJURY: JANUART 1, 1902-JUNE 80, 1905. |  |
| :---: | :---: | :---: |
|  | Number. | Per cent distribution. |
| All causes . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 3,002 | 100.0 |
| Cerebrespinal fever. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 270 | 9.0 |
| Meningitis......-................................................ . . | 620 | 20.7 |
| Other diseases of the brain. | 391 | 13.0 |
| Bcarlet fever...................................................... | 470 | 15.7 |
| Measles.... ...................................................... | 182 | 6.1 |
| Diphtheris ........-.............................................. | 78 | 2.6 |
| Smallpox.....-.............................................. | 4 | 0.1 |
| Typhoid fever (Unterleibstyphus).......................... | 118 | 3.9 |
| Whooping cough . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 48 | 1.6 |
| Infuenza....................................................... | 33 | 1.1 |
| Syphilis or Keratitis diffusa.................................. | 4 | 0.1 |
| Idiopathic diseases of the ear . . . . . . . . . . . . . . . . . . . . . . . . . | 181 | 6.0 |
| Other diseases.................................................... | 404 | 13.5 |
| Injuries to the head. | 199 | 6.6 |

The 3,002 children for whom the inquiry as to the disease or injury during or after which deafness became noticeable was answered represented about seveneighths ( 86.5 per cent) of the 3,472 deaf-mute children of school age in institutions for deaf-mutes during the period covered by the returns. By far the largest number (620, constituting 20.7 per cent, or one-fifth,
of the total) reported that their deafness had become noticeable during or after an attack of meningitis (Gehirnhautentziindung), and in addition, nearly one-tenth ( 9 per cent) indicated cerebrospinal fever (epidemische Genickstarre) as the probable cause, these two diseases together being reported by considerably more than onefourth ( 29.6 per cent) of the total. Other diseases of the brain were reported by 13 per cent of those answering the inquiry, so that altogether more than twofifths ( 42.7 per cent) indicated as the probable cause of deafness some cerebral affection, and there is ground for regarding even this figure as too low. ${ }^{1}$ Soarlet fever ranked next to meningitis in the frequency with which it was returned, being reported by nearly onesixth ( 15.7 per cent) of the total. The proportion reporting measles was 6.1 per cent. The number reporting injuries to the head (representing 6.6 per cent of the total) was, however, slightly greater than the number reporting measles, while the number reporting idiopathic diseases of the ear was practically the same as the latter.

General Table 13 (p. 128) shows for each division and state the distribution according to reported cause of deafness of the deaf and dumb population for whom special schedules were returned. Table 65 shows a similar distribution in a more condensed form, with percentages, for each geographic division. The congenitally deaf are included in this table in order to bring out more clearly the actual importance of the various causes in the respective divisions in producing deaf-mutism.
The divisions present some interesting contrasts in regard to the leading causes of deafness. Although in the United States as a whole scarlet fever was reported as cause more frequently than meningitis, this was true in only four of the nine geographic divisions-the New England, Middle Atlantic, East North Central, and South Atlantic-meningitis being the cause most frequently reported in the remaining five. Meningitis and brain fever taken together outranked any other classifiable cause for the United States as a whole and for eight of the nine divisions; New England, however, constitutes a striking exception, the proportion of cases in which scarlet fever was reported as cause being considerably in excess of the combined proportion for meningitis and brain fever. Of the other causes shown separately in the table, falls and blows ranked next to those just specified in the New England, Middle Atlantic, Mountain, and Pacific divisions; abscess of the head, which, however, as already pointed

[^19]out, is probably merely the sequel of some other disease, in the three southern divisions; and measles in the two North Central divisions.
The percentages for the leading causes show a considerable range in the different divisions. Scarlet fever, for example, was reported as cause by only 4.4 per cent of the total number of deaf-mutes returning schedules in the West South Central division, as compared with 16.9 per cent, or one-sixth, of those in the New England division; considerably more than onefourth ( 27.4 per cent) of those in this latter division whose deafness was acquired attributed it to this cause. Similarly, the percentage naming meningitis as the cause of deafness ranged from 5.1 in the South Atlantic division to 15 in the Pacific division, and the percentage reporting brain fever from 1.4 in the South Atlantic to 7.8 in the East North Central; when these two causes are taken together the range is from 6.4 in the South Atlantic to 20.1 in the Pacific division. The percentage for falls and blows varied from 1.7 in the two South Central divisions to 5.1 in the Middle Atlantic; that for measles from 1.7 in the East South Central to 3.4 in the East North Central; and that for typhoid fever from 1.4 in the South Atlantic and East South Central to 2.8 in the East North Central.
These wide variations in the relative importance of the respective causes in the different divisions are somewhat difficult of explanation. In largemeasure, of course, they are due to variations in the percentage of congenital cases; thus the high percentages shown for scarlet fever and meningitis in the Pacific division are undoubtedly accounted for to a considerable extent by the low proportion of congenital deafness in that division, resulting from the fact that it is in large part a newly settled division. Similarly, the low percentages for the leading causes of deafness in the southern divisions may be due to the high proportion of congenital deafnessin these divisions. In this connection, however, it must be remembered that a high percentage of congenital deafness may be due either to a high prevalence of this form of deafness or to a low incidence of acquired deafness, and that it can not always be determined which is the factor actually operating in any given instance. Another circumstance which must be borne in mind in connection with statistics as to cause of deafness by geographic divisions is that the prevalence of the various diseases causing deafness has probably varied widely in individual divisions at different periods of time, so that a high percentage for a given cause may reflect epidemic or semiepidemic conditions at some time in the past, and does not necessarily indicate the present importance of the disease in question as a cause of deaf-mutism in the given division. Differences in the completeness and accuracy of the returns as to cause are also responsible for some of the differences shown for the various divisions.

${ }^{1}$ Less than one-tenth of 1 per cesut.

In determining the probable extent to which the differences in the relative importance of individual causes were due to variations in their prevalence in the respective divisions at the present time, accurate mortality statistics would be of considerable service. Unfortunately a considerable part of the United States is not included in the registration area for deaths, and the portion excluded comprises the greater part of the South, which shows some of the most striking variations from the other divisions in regard to causes of deafness, so that it is necessary to exercise some caution in the use of mortality rates for the purpose of comparisons between geographic divisions. As such comparisons for the leading causes of acquired deafmutism would, however, be of considerable interest in the present connection, Table 66 is presented, showing the average annual death rate among children under 10 years of age from typhoid fever, measles, scarlet fever, diphtheria and croup, and meningitis for the 5 -year period 1910-1914 for those portions of the respective geographic divisions included within the registration area for which statistics as to the causes of death at the different ages are available.

| Table 66drvision. | aVERAGE ANNUAL DEATH RATE FROM SPECIFIED CAUSE AMONG CHILDREN UNDER 10 TEARS OF AGE PER 100,000 LIVING AT SAME AGE: 1910-1914. ${ }^{1}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Typhoid fever. | Measles. | Scarlet fever. | Diphtheria and croup. | Menłngitis. |
| Total. | 10.7 | 44.8 | 36.5 | 87.5 | 39.3 |
| New England | 4.9 | 51.7 | 28.5 | 85.3 | 55.4 |
| Middle Atlantic................. | 6.7 | 56.5 | 45.6 | 109.8 | 36.0 |
| East North Central (part of)... | 11.8 | 37.5 | 41.9 | 86.2 | 36.3 |
| West North Central (part 0f)... | 14.3 | 33.9 | 32.0 | 68.9 | 28.5 |
| Bouth Atlantic (part of).-..... | 19.0 | 32.5 | 13.6 | 57.3 | 43.4 |
| East South Central (part of)... | 26.0 | 39.5 | 11.0 | 92.7 | 63.9 |
| West South Central (part of)-. | 12.5 | 45.3 | 10.9 | 96.8 | 41.2 |
| Mountain (part 0f)..............- | 17.1 | 36.9 32.0 | 49.7 | 40.0 | 36.1 |
| Pacific (part of)................... | 11.7 | 32.0 | 16.0 | 40.1 | 39.3 |

${ }^{1}$ Figures relate to registration states and registration cities of 100,000 population or over innonregistrationstates; for smaller registrationcitiesin nonregistrationstates figures are not available.

As the death rate of children under 10 years of age from scarlet fever in the three southern divisions is much below the average for the United States as a whole, it seems probable that the low percentage of cases in which scarlet fever was returned as cause of deafness in these divisions reflects actual conditions, especially as scarlet fever is likely to be as readily recognized as any of the leading causes. In New England, on the other hand, where the percentage reporting scarlet fever as cause of deafness is high and the percentage reporting meningitis low, the death rate from the former cause is below the average and that from the latter cause above the average, so that it is apparent that some part of the explanation for the conditions first mentioned must be sought elsewhere than in the relative prevalence of the respective causes at the present time. For two of the southern divisions the death rate from measles is below the average; the rates from meningitis and from typhoid fever, however, are above the average in all three
divisions, and that from diphtheria in two. On the whole, so far as mortality returns go, it seems fully as probable that the high percentage of congenital deafmutism in the South indicates a high prevalence of congenital deafness in this section of the country as that it reflects a low prevalence of acquired deafmutism. In general, however, owing to the limitations already mentioned, the statistics fail to shed any very extensive light on the reasons for the variations in the proportions of the deaf and dumb who attributed their deafness to the several causes.
General Table 14 (p. 132) shows the number in the various race and nativity classes among the deaf and dumb for whom special schedules were returned who reported the various causes of deafness. Table 67 gives similar figures in somewhat less detail.
The three leading race and nativity classes differ to some extent in respect to the relative importance of the different causes of deafness. Among the foreignborn whites the proportion of cases where deafness was due to scarlet fever was considerably above the average, being 15.2 per cent, as compared with 10.5 per cent for all classes combined, while the proportion for meningitis and brain fever taken together was below the average ( 11.2 per cent, as compared with 14.3 per cent for all classes combined). On the other hand, the percentage reporting typhoid fever as cause was considerably higher for this class (4.8) than for any of the others. Among the Negroes the percentage reporting scarlet fever as the cause of deafness was exceptionally low, being only 2.9 , as compared with a percentage of 10.5 for the native whites. The percentages for measles, typhoid fever, and meningitis (including brain fever) were also somewhat lower than in the case of the whites.
As a number of different factors contribute to bring about the differences in the percentages for the respective causes in the several race and nativity classes, it is difficult to determine definitely just what is the precise significance of these differences. To a certain extent variations in the tendency to congenital deafness in the respective classes may account for differences in the relative importance of the causes of acquired deafness, this factor being perhaps especially likely to influence the figures for the Negroes; but on the whole it seems probable that the differences in the percentages congenitally deaf are to a greater or less extent themselves explained by the differences in the percentages for the causes producing acquired deafness, rather than that they explain these differences. Variations in the definiteness and accuracy of the returns as to cause constitute another factor requiring consideration; in particular, it appears probable that the low percentages for the leading causes in the case of the Negroes are partly explained in this manner. This may also account in part for some of the figures for the foreign-born whites; in connection with the high percentage for typhoid fever shown for this class,
for example, it is interesting to note that the German report on deaf-mutes of school age for the period 1902-1905 states that the cases where typhoid fever (Unterleibstyphus) was returned as apparent cause probably in many instances represent cases where the actual ailment was some disease of the brain (see p. 58).

To some extent, however, the differences in the percentages for the several causes in the respective race and nativity classes reflect actual differences in the importance of the different diseases as causes of deafness. The extremely low percentage for scarlet fever in the case of Negroes, for example, unquestionably indicates that this is much less important as a cause of deafness for Negroes than it is for whites, because, as already noted (p. 22) the death rate from this cause is distinctly lower for Negroes than for whites. The much smaller disproportion between the percentages for the two races in the case of meningitis than in the case of the other important causes makes it apparent that there is much less difference in the degree to which whites
and Negroes, respectively, are susceptible to this disease; and in fact, as already pointed out, mortality statistics tend to show that the death rate from meningitis is higher for Negroes than for whites. The diseases generally recognized as the leading causes of adventitious deaf-mutism, namely, scarlet fever, measles, diphtheria, meningitis (including brain fever), and typhoid fever, taken together, were returned as cause for only 14.2 per cent, or one-seventh, of the Negroes for whom schedules were received, as compared with 31 per cent, or nearly one-third, for the native whites, and 34.5 per cent, or more than onethird, for the foreign-born whites. After making all allowances for differences in the accuracy of the returns and also for possible differences in the tendency to congenital deafness, it still seems probable that these percentages to some extent reflect actual conditions, and that the higher proportion congenitally deaf among the Negroes is due more to a relatively low incidence of adventitious deafness than to a high incidence of congenital deafness.


In order to bring out somewhat more clearly the differences in the relative importance of the various affections producing adventitious deafness for the respective race and nativity classes, Table 68 is presented, showing the per cent distribution by cause of deafness of those in each class who reported their deafness as acquired.

| Table 68REPORTED CAUSE OF DEAFNESS. | PER CENT DISTRIBUTION OF DEAF AND DUMB POPULATION FOR WHOM SPECLAL SCHEDULES WERE RETORNED WHOSE DEAFNESS WAS ACQUIRED: 1910. ${ }^{1}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | All | White. |  |  | Colored. ${ }^{2}$ |  |
|  |  | Total. | Na tive. | For-eignborn. | Total. | Negro. |
| All causes $\qquad$ Causes affecting the external ear. | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
|  | 0.6 | 0.5 | 0.5 | 0.7 | 1.2 | 1.1 |
| Causes affecting the middle ear. <br> Causes producing suppurative condition. <br> Scarlat fover | 38.8 | 39.4 | 40.2. | 32.6 | 26.1 | 25.8 |
|  | 31.9. | 32.5 | 32.8 | 30.0 | 18.8 | 18.6 |
|  | 17.3 | 17.7 | 17.2 | 22.3 | 6.7 | 6.6 |
| Measles. | 4.5 | 4.6 | 4.7 | 3.7 | 3.4 | 3.2 |
| Diphtheria | 1.4 | 1.5 | 1.5 | 1.3 | 0.4 | 0.4 |
| Preumonia | 0.9 | 0.9 | 1.0 | 0.1 | 1.2 | 1.1 |
| Abscess in the head | 3.0 | 3.0 | 3.3 | 0.2 | 3.4 | 3.6 |
| Disease of the ear... ............... | 2.0 | 2.1 | 2.2 | 0.7 | 1.4 | 1.3 |
| All other causes producing suppurative condition. | 2.8 | 2.8 | 2.9 | 1.8 | 2.4 | 2.5 |
| Causes not producing suppurative condition. Whooping cough | 6.8 | 6.8 | 7.3 | 2.6 | 7.3 | 7.2 |
|  | 2.6 | 2.6 | 2.8 | 1.1 | 2.2 | 2.1 |
| Catarrh................................. | 1.6 | 1.6 | 1.8 | 0.2 | 1.4 | 1.5 |
| Colds <br> All other causes not producing suppurative condition. | 1.3 | 1.3 | 1.4 | 1.0 | 1.4 | 1.5 |
|  | 1.3 | 1.2 | 1.3 | - 0 | 2.4 | 2.1 |
| All other causes affecting the middle ear. | 0.1 | 0.1 | 0.1 | 0.1 |  |  |
| Causes affecting the internal ear...... | 31.5 | 31.7 | 32.3 | 27.0 | 27.7 | 28.5 |
| Causes affecting the labyrinth...... Malarial fever and quinine. | 1.9 | 1.8 | 1.9 | 1.0 | 5.1 | 5.5 |
|  | 1.1 | 1.0 | 1.1 | 0.3 | 3.8 | 4.0 |
| Mumps. <br> All other causes affecting the labyrinth.. | 0.7 | 0.7 | 0.7 | 0.7 | 0.6 | 0.6 |
|  | 0.1 | 0.1 | 0.1 | ..... | 0.8 | 0.8 |
| Causes affecting the auditory nerve. Meningitis. | 29.3 | 29.6 | 30.1 | 25.6 | 22.4 | 22.8 |
|  | 15.6 | 15.6 | 16.8 | 5.8 | 16.0 | 17.1 |
|  | 8.0 | 8.2 | 7.9 | 10.6 | 2.2 | 1.7 |
| Typhoid fev Convulsions | 3.3 | 3.3 | 2.8 | 7.1 | 3.4 | 3.2 |
|  | 1.6 | 1.6 | 1.6 | 1.0 | 0.2 | 0.2 |
| All other causes affecting the auditory nerve. | 0.9 | 0.9 | 0.9 | 1.0 | 0.6 | 0.6 |
| All other causes affecting the internal ear. | 0.4 | 0.4 | 0.4 | 0.4 | 0.2 | 0.2 |
| Combination of different classes of causes. | 0.5 | 0.5 | 0.5 | 0.3 | 0.4 | 0.4 |
| Unclassifiable causes................. . | 20.1 | 19.6 | 18.3 | 30.0 | 30.1 | 29.6 |
| Falls and blows. Accident. All other unclassifiable cautses. | 5.1 | 5.0 | 4.5 | 9.5 | 5.7 | 5.9 |
|  | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 |
|  | 14.6 | 14.1 | 13.4 | 19.8 | 23.8 | 23.0 |
| Cause unknown or not reported...... | 8.5 | 8.3 | 8.1 | 9.4 | 14.5 | 14.6 |

${ }_{2}$ Includes those for whom the age when hearing was lost was not reported.
2 Per cent disuribution of "Other colored" not shown, as base is less than 100.
Meningitis (including brain fever) was reported as cause of deafness by one-fourth ( 24.8 per cent) of the native whites whose deafness was acquired, as compared with corresponding percentages of 16.4, or onesixth, and 18.8, or somowhat less than one-fifth, for the foreign-born whites and Negroes, respectively. Scarlet fever was reported as cause by 17.2 per cent, or slightly more than one-sixth, of the native white deaf-mutes whose deafness was acquired, as compared with 22.3 per cent, or more than one-fifth, of the foreign-born whites, and 6.6 per cent, or only one-
sixteenth, in the case of the Negroes. About one-tenth ( 9.5 per cent) of the foreign-born whites assigned falls or blows as the cause of their deafness, the corresponding percentage for native whites being only 4.5 and that for Negroes 5.9. The percentage reporting typhoid fever was 7.1 for the foreign-born whites, as compared with 2.8 and 3.2 , respectively, for the native whites and the Negroes; the percentage reporting measles was 4.7 for the native whites, 3.7 for the foreign-born whites, and 3.2 for the Negroes.

General Table 15 (p. 134) shows the distribution according to reported cause of deafness of the deaf and dumb population for whom special schedules were returned, classified according to age when hearing was lost. Table 69 (p. 64) gives a similar distribution in more condensed form for those whose deafness was acquired, with percentages.

So far as can be determined from the figures in Table 69, meningitis (including brain fever) appears to be of approximately the same importance as a cause of deafness during the first and second quinquennia of life, being reported by 29.4 per cent, or considerably more than one-fourth, of those who lost their hearing between the ages of 5 and 9 , and slightly less than onefourth ( 24.2 per cent) of those who became deaf before the completion of their fifth year; only 8.6 per cent, or about one-twelfth, of those who lost their hearing later than the first decade of life, however, assigned this disease as a cause of deafness. Scarlet fever was most frequently reported by those who lost their hearing during the second quinquennium of life, one-fourth (24.8 per cent) of whom returned this as cause, as compared with 16.8 per cent, or one-sixth, of those who had lost it during the first quinquennium, and 15 per cent, or somewhat less than one-sixth, of those who had lost it after reaching the age of 10 . The proportion credited to typhoid fever was also higher for those losing their hearing in the later age periods than in the earlier, only 3 per cent of those who lost their hearing before reaching the age of 5 attributing their deafness to this cause, as compared with 6.1 per cent of those who lost it between the ages of 5 and 9 , and 6.4 per cent of those losing it after reaching the age of 10. Falls and blows, on the other hand, were returned with greater relative frequency by those who lost their hearing during the first five years of life than by those who lost it during the second quinquennium or after the completion of the first decade, the percentages being 5.5 , 3.8, and 5 , respectively. The differences noted are doubtless explained to a certain extent by differences in the percentage of cases where the cause of deafness was unknown or not reported, or was indefinitely or inaccurately returned, cases where no cause whatever was returned or where an unclassifiable cause other than external injury was reported representing more than two-fifths ( 42.1 per cent) of those where hearing was lost after reaching the age of 10 , as compared with 20.3 per cent and 16.9 per cent of those where it was
lost respectively in the first and second quinquennia; differences in the extent to which the less satisfactory of the classified causes, such as "disease of the ear," are returned by those who lost their hearing at the respective ages may also be a factor. It seems probable, however, that the figures indicate in a general way the actual differences in the importance of the leading causes of deaf-mutism at the different ages.

Of those who reported their hearing as lost during their first year of life, more than one-fifth ( 22.4 per cent) gave meningitis or brain fever as the cause of deafness, a proportion more than twice as great as that for scarlet fever (9.7), the cause ranking second. Abscess in the head ranked third, being reported by 6.5 per cent of the total; in most of these cases, of course, the actual cause was probably one of the contagious or infectious diseases. Falls and blows ranked fourth among the causes as reported, and measles fifth, the percentages being 5.4 and 5 , respectively. For the second year of life meningitis (including brain fever) again ranked first, being named as cause by about onefifth ( 20.3 per cent) of those whose hearing was lost at 1 year of age. The proportion reporting scarlet fever as cause was somewhat higher for those who lost their hearing during this year of life ( 12.5 per cent, or about one-ighth) than for those who lost it in the first. Falls and blows ranked third, being reported by 6.3 per cent of the total, and measles fourth, being reported by 5.7 per cent.

Nearly one-fourth ( 24.3 per cent) of those who lost their hearing in the third year of life assigned meningitis or brain fever as the cause of deafness, and nearly one-fifth (18.9 per cent) scarlet fever; falls and blows again ranked third and measles fourth, with percentages of 5.7 and 5.1 , respectively. Of those who lost their hearing during the fourth year, more than onefourth ( 27 per cent) assigned meningitis or brain fever as cause and more than one-fifth ( 22.8 per cent) scarlet fever, these causes being reported by practically onehalf ( 49.9 per cent) of the total. Falls and blows continue to rank third, with 5.5 per cent, followed by measles and typhoid fever, with 4.4 per cent of the total in each case. Of those whose hearing was lost during their fifth year, nearly three-fifths (58.2 per
cent) reported either meningitis (including brain fever) or scarlet fever as cause, the proportions being 33.7 per cent, or one-third, in the first instance, and 24.5 per cent, or about one-fourth, in the second. Typhoid fever ranked next among the causes as reported and measles fourth, the percentages for these causes being only 3.8 and 3.3 , respectively.

During the second quinquennium of life the importance of scarlet fever as a cause of deafness shows a general tendency to increase, practically one-fourth ( 24.5 per cent) of those who lost their hearing at the age of 5 reporting this as the cause, as compared with about three-tenths ( 29 per cent) of those who lost it at the age of 8 or 9 . In the last two years of the period, in fact, scarlet fever outranks all other causes in importance. During the first three years of the period meningitis (including brain fever) maintains about the same relative importance as in the closing years of the preceding quinquennium, being assigned as cause by 28.7, 32.6, and 31.3 per cent, respectively, of those who lost their hearing at the ages of 5,6 , and 7 , but by only 15 per cent of those who lost it in the last two years of the period taken together. Of those who lost their hearing during the sixth and seventh years of life more than onehalf ( 53.2 per cent and 55.1 per cent, respectively), and of those losing it in the eighth year nearly three-fifths ( 58.6 per cent) gave one or the other of these diseases as the cause of their deafness. Typhoid fever ranks third for the first three years of this quinquennium, the percentages reporting this cause ranging from 5.1 in the case of those who lost their hearing at the age of 6 to 8.5 in the case of those who lost it at the age of 7 ; for the last two years of the period taken together the number reporting measles and typhoid fever was the same.

Scarlet fever was reported more frequently than any other cause by the small number of deaf-mutes who lost their hearing after reaching the age of 10 , the proportion returning this cause, as already stated, being 15 per cent, or slightly more than one-seventh. Meningitis (including brain fever) ranked second. No other cause was reported by as many as 10 persons.

| Table 69 <br> hepobitd cause of deafiess. | deat and dumb population for whom spectal sceedules were returned whose deafness was acqutred: 1910.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total. | At less than 5 years of age. |  |  |  |  |  |  | At 5 to 9 years of age. |  |  |  |  | At 10 years of age or over. |
|  |  | Total. |  | 1 year. | 2 years. | 3 years. | 4 years. | $\left\|\begin{array}{c} \text { Infancy } \\ \text { (exact } \\ \text { age not } \\ \text { re- } \\ \text { ported). } \end{array}\right\|$ | Total. | 5 years. | 6 years. | 7 years. | $8 \text { and } 9$ |  |
| All causes | NOMBER. |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 11,620 | 9,254 | 1,628 | $\underline{2,375}$ | 2,606 | 1,572 | 959 | 114 | 1,594 | 714 | 454 | 319 | 107 | 140 |
|  | 64 | 54 | 12 | 14 | 13 | 8 | 4 | 3 | 9 | 5 | 2 | 2 |  |  |
| Causes affecting the middle ear. | 4,507 | 3,773 | 667 | 982 | 1,089 | 618 | 369 | 48 | 600 | 274 | 160 | 120 | 46 | 35 |
| Causes producing suppurative condition... | 3,708 <br> 2,005 <br> 525 <br> 166 <br> 102 <br> 349 <br> 237 <br> 324 | $\begin{array}{r} 3,069 \\ 1,558 \\ 454 \\ 142 \\ 98 \\ 323 \\ 215 \\ 279 \end{array}$ | 519 | 766 | 879 |  | $\begin{array}{r} 329 \\ 235 \\ 32 \\ 19 \\ 6 \\ 8 \\ 8 \end{array}$ | 36 | $\begin{array}{r} 545 \\ \hline 395 \\ 59 \\ 20 \\ 3 \\ 18 \\ 13 \\ \hline \end{array}$ | $\begin{array}{r} 253 \\ 175 \\ 30 \\ 11 \\ 2 \\ 9 \\ 9 \end{array}$ | $\begin{array}{r} 142 \\ 102 \\ 12 \\ 5 \\ 1 \\ 5 \\ 3 \end{array}$ | 10987113 | 413161 | 282131 |
| Scarlet fever........................... |  |  | 158 | ${ }_{136}^{298}$ | 492 132 | $\begin{array}{r}359 \\ 69 \\ \hline\end{array}$ |  | 16 4 |  |  |  |  |  |  |
| Miessies.... |  |  | 81 19 | 136 43 | $\begin{array}{r}132 \\ 37 \\ \hline\end{array}$ | $\begin{array}{r}69 \\ 24 \\ \hline\end{array}$ |  | 4 |  |  |  |  |  |  |
| Pneumonia. |  |  | 30 | 22 | 26 | 11 |  | 3 |  |  |  |  |  |  |
| Abscoss in the head. |  |  | 106 67 | 102 67 | 70 51 | 32 16 |  | 5 6 |  |  |  | 1 | 2 | i |
| All other causes producing suppurative condition. |  |  | 67 58 | 67 98 | 51 71 | 16 29 | 8 21 | 6 | 13 37 | 9 17 | 3 14 | 1 5 | 1 | 1 |
| Causes not producing suppurative condi- |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| tion Whooping cough............................................. | $\begin{aligned} & 789 \\ & 301 \\ & 186 \\ & 158 \end{aligned}$ | 698 277 | $\begin{array}{r} 145 \\ 76 \\ 22 \\ 28 \end{array}$ | ${ }_{81}^{215}$ | $\begin{gathered} 208 \\ 79 \\ 44 \\ 44 \end{gathered}$ | $\begin{aligned} & 77 \\ & 26 \\ & 24 \\ & 15 \end{aligned}$ | $\begin{gathered} 39 \\ 11 \\ 7 \\ 14 \end{gathered}$ | $\begin{array}{r} 12 \\ 4 \\ 3 \\ 5 \end{array}$ | $\begin{array}{r} 53 \\ 15 \\ 12 \\ 9 \end{array}$ | 21643 | 178 | 1012 | 5 |  |
| Catarth. |  | 158 |  | 58 |  |  |  |  |  |  |  |  | $\left\|\begin{array}{rr} \cdots \\ 2 \\ 2 \end{array}\right\|$ |  |
| Colds.......... |  | 140 |  | 34 |  |  |  |  |  |  | 2 | 2 |  |  |
| All other causes not producing suppurative condition. | 146 | 121 | 19 | 42 | 41 | 12 | 7 |  | 172 | 8 | 3 | 5 | 1 | 2 |
| All other causes affecting the middle ea | 10 | 8 | 3 | 1 | 2 | 1 |  |  |  |  | 1 | 1 |  |  |
| Causes affecting the internal ear. | 3,666 | 2,955 | 488 | 681 | 818 | 558 | 391 | 19 | 639 | 233 | 187 | 143 | 26 | 34 |
| Causes affecting the labyrinth | $\begin{array}{r} 226 \\ 128 \\ 85 \\ 13 \end{array}$ | 173 | 31 |  | 46 |  |  | 1 |  |  |  | 10 |  |  |
| Malarias fever and quinine. |  | 107 57 | 17 | 31 | 32 | 19 | 8 |  | 14 | 7 | 2 | 4 | 1 |  |
| mps. <br> All other causes affecting the labyrinth. |  | 57 9 | 10 4 | 11 | 11 | 14 | 11 | 1 | 15 1 | 12 | 5 | 5 |  |  |
| Causes affecting the auditory nerve | 3,399 | 2,746 | 4452231 | 629301 | 768 | 517 | 369229 | 18 | $\begin{array}{r}596 \\ 339 \\ \hline 1\end{array}$ | $\begin{array}{r}264 \\ 153 \\ 52 \\ \hline\end{array}$ | 17910840 | $\begin{array}{r}131 \\ 67 \\ 33 \\ \hline 62\end{array}$ | 221156 | $\begin{array}{r} 27 \\ 5 \\ 7 \\ 9 \\ 3 \end{array}$ |
| Meningitis. | 1,812 | 1,454 |  |  | 411 | 282 |  |  |  |  |  |  |  |  |
| Brain fever.. | 927 384 | 784 | 141 | 182 69 | 221 | 143 | ${ }^{94}$ | 2 | 130 |  | 40 |  |  |  |
| Conrulsions. | 384 174 | 161 | 18 4 | 69 58 | 39 | ${ }_{11}^{69}$ | 36 7 | 2 | 97 5 | 41 | 23 1 | 27 |  |  |
| All other causes affecting the auditory nerve. | 102 | 74 | 19 | 21 | 18 | 12 | 3 | 1 | 25 | 14 | 4 |  |  |  |
| All other causes affecting the internal ear | 41 | 36 | 12 | - | , | 8 |  |  | 3 |  | 1 | $2$ |  | $\begin{array}{r}3 \\ 1 \\ 1 \\ 49 \\ \hline\end{array}$ |
| Combination of different classes | 55 | 45 | 5 | 14 | 13 | 9 | 3 | 1 | 9 | 4 | 3 | 2 |  |  |
| Unclassiflable causes. | 2,336 | 1,938 | 369 | 571 | 518 | 310 | 150 | 20 | 270 | 115 | 85 | 41 | 29 |  |
| Falls and blo | $\begin{array}{r} 587 \\ 57 \\ 1,692 \\ 992 \end{array}$ | $\begin{array}{r} 506 \\ 45 \\ 1,387 \\ 489 \end{array}$ | $\begin{array}{r} 88 \\ 88 \\ 273 \\ 87 \end{array}$ | 15012409113 | $\begin{array}{\|l\|} \hline 148 \\ 13 \\ 357 \\ 155 \end{array}$ | $\begin{array}{r} 86 \\ 7 \\ 217 \\ 69 \end{array}$ | $\begin{array}{r} 28 \\ 5 \\ 117 \\ 42 \end{array} .$ | $\begin{array}{\|r\|} \hline 6 \\ \cdots \cdots \\ 14 \\ 23 \end{array}$ | $\begin{array}{r} 60 \\ 7 \\ 203 \\ 67 \end{array}$ | 2848333 | $\begin{aligned} & 18 \\ & 1 \\ & 66 \\ & 17 \end{aligned}$ | $\begin{aligned} & 11 \\ & 1 \\ & 29 \\ & 11 \end{aligned}$ | $\begin{array}{r} 3 \\ 1 \\ 25 \\ 6 \end{array}$ | $\begin{array}{r} 7 \\ 3 \\ 39 \\ 20 \end{array}$ |
| Accident. <br> All other unclassifiable caus |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cause unknown or not reported................ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | per cent distribution. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All causes..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 ${ }^{\circ}$ | 100.0 | 100.0 | 100.0 | 100.0 |
| Causes affecting the external ear | 0.6 | 0.6 | 0.7 | 0.6 | 0.5 | 0.5 | 0.4 | 2.6 | 0.6 | 0.7 | 0.4 | 0.6 |  | 0.7 |
| Causes affecting the middle ear. | 38.8 | 40.8 | 41.0 | 41.3 | 41.8 | 39.3 | 38.5 | 42.1 | 37.6 | 38.4 | 35.2 | 37.6 | 43.0 | 25.0 |
| Causes producing suppurative conditio | 31.9 | 33.2 | 31.9 | 32.3 | 33.7 | 34.4 | 34.3 | 31.6 | 34.2 | 35.4 | 31.3 | 34.2 | 38.3 | 20.0 |
| Scarlet fever | 17.3 | 16.8 | 9.7 | 12.5 | 18.9 | 228 | 24.5 | 14.0 | 24.8 | 24.5 | 22.5 | 27.3 | 29.0 | 15.0 |
| Measles.... | 4.5 | 4.9 1.5 | 5.0 1.2 | 5.7 1.8 | 5.1 1.4 | 4.4 | 3.3 2.0 | 3.5 | 3.7 1.3 | 4.2 1.5 | 2.6 | 3.4 0.9 | 5.6 0.9 | 21 0.7 |
| Pnoumonia. | 0.9 | 1.1 | 1.8 | 0.9 | 1.0 | 0.7 | 0.6 | 2.6 | 0.2 | 0.3 | 0.2 |  |  | 0.7 |
| Abscess in the head. | 3.0 | 3.5 | 6.5 | 4.3 | 2.7 | 2.0 | 0.8 | 4.4 | 1.1 | 1.3 | 1.1 | 0.6 | 1.9 |  |
| Disease of the ear. . | 2.0 | 2.3 | 4.1 | 2.8 | 2.0 | 1.0 | 0.8 | 5.3 | 0.8 | 1.3 | 0.7 | 0.3 |  | 0.7 |
| All other causes producing suppurative condition........................ | 2.8 | 3.0 | 3.6 | 4.1 | 2.7 | 1.8 | 2.2 | 1.8 | 2.3 | 2.4 | 3.1 | 1.6 | 0.9 | 1.4 |
| Causes not producing suppurative condi- |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| tion............ | 6.8 | 7.5 | 8.9 | 9.1 | 8.0 | 4.9 | 4.1 | 10.5 | 3.3 | 2.9 | 3.7 | 3.1 | 4.7 | 5.0 |
| Whooping cough | 2.6 1.6 | 3.0 | 4.7 | 3.4 | 3.0 | 1.7 | 1.1 | 3.5 | 0.9 | 0.8 | 1.8 | 0.3 |  | 0.7 |
| Colds... | 1.3 | 1.5 | 1.7 | 1.4 | 1.7 | 1.0 | 1.5 | 4.4 | 0.8 | 0.6 | 0.9 0.4 | 0.6 0.6 | 1.9 1.9 | 2.1 |
| All other causes not producing suppurative condition. | 1.3 | 1.3 | 1.2 | 1.8 | 1.6 | 0.8 | 0.7 |  | 1.1 | 1.1 | 0.7 | 1.6 | 0.9 | 1.4 |
| All other causes affecting the middle ear... | 0.1 | 0.1 | 0.2 | (2) | 0.1 | 0.1 | 0.1 |  | 0.1 |  | 0.2 | 0.3 |  |  |
| Causes affecting the internal ear. | 31.5 | 31.9 | 30.0 | 28.7 | 31.4 | 35.5 | 40.8 | 16.7 | 40.1 | 39.6 | 41.2 | 44.8 | 24.3 | 24.3 |
| Causes affecting the labyrinth.. |  |  |  |  | 1.8 | 2.1 | 2.0 | 0.9 | 2.5 | 2.7 | 1.5 | 3.1 | 3.7 |  |
| Malarial fever and quinine.. | 1.1 | 1.2 | 1.0 | 1.3 0.5 | 1.2 0.4 | 1.2 0.9 | 0.8 1.1 |  | 0.9 | 1.0 | 0.4 | 1.3 | 0.9 | 2.9 |
| All other causes affectiog the labyrinth. | 0.1 | 0.1 | 0.2 | (3) ${ }^{0}$ | 0.1 | 0.9 | 1.1 | 0.9 | 1.6 0.1 | 1.7 | 1.1 | 1.6 | 2.8 |  |
| Causes affecting the auditory | 29.3 | 29.7 | 27.3 | 28.5 | 29.5 | 32.9 | 38.5 | 15.8 | 37.4 | 37.0 | 39.4 |  |  |  |
| Meningitis.... | 15.6 | 15.7 | 13.7 | 12.7 | 15.8 | 17.9 | 23.9 | 7.0 | 21.3 | 21.4 | 29.8 | 21.1 21.0 | 20.6 10.3 | 19.3 |
| Brain fover.... | 8.0 | 8.5 | 8.7 | 7.7 | 8.5 |  | 9.8 | 2.6 | 8.2 | 7.3 | 8.8 | 10.3 | 4.7 | 5.0 |
| Typhoid fever........................... | 3.3 1.5 | 3.0 1.7 | $\underline{1.1}$ | 2.9 2.4 | 3.0 1.5 | 4.4 | 3.8 0.7 | 1.8 | 6.1 | 5.7 | 5.1 | 8.5 | 5. 6 | 6.4 |
| All other causes affecting the auditory | 1.5 | 1.7 | 2.7 | 2.4 | 1.5 | 0.7 | 0.7 | 3.5 | 0.3 | 0.6 | 0.2 |  |  |  |
| nerve............................... | 0.9 | 0.8 | 1.2 | 0.8 | 0.7 | 0.8 | 0.3 | 0.9 | 1.6 | 2.0 | 1.5 | 1.3 |  | 2.1 |
| All other causes aflecting the internal ear. . | 0.4 | 0.4 | 0.7 | 0.4 | 0.2 | 0.5 | 0.3 |  | 0.2 |  | 0.2 | 0.6 |  | 0.7 |
| Combination of different classes of causes. | 0.5 | 0.5 | 0.3 | 0.6 | 0.5 | 0.6 | 0.3 | 0.9 | 0.6 | 0.6 | 0.7 | 0.6 |  | 0.7 |
| Unclassiflable causes. | 20.1 | 20.9 | 22.7 | 24.0 | 19.9 | 19.7 | 15.6 | 17.5 | 18.9 | 16.1 | 18.7 | 12.9 | 27.1 | 35.0 |
| Falls and blows. | 5.1 |  |  |  |  | 5.5 | 2.9 | 5.3 | 3.8 | 3.9 | 4.0 | 3.4 |  |  |
| All othert. | 0.5 14.6 | 0.5 15.0 | 0.5 16.8 | 0.5 172 | 0.5 13.7 | 0.4 | 0.5 |  | 3.8 0.4 | 0.6 | 0.2 | 0.3 | 0.9 | 21 |
| Cause unknown or not reported. | 8.5 | 5.3 | 5.3 | 4.8 | 5.9 | 4.4 | 4.4 | 20.2 | 12. | 11.6 4.6 | 14.5 | 9.1 | 23.4 | 27. |
|  |  |  |  |  |  |  |  | 20.2 | 4.2 | 4.6 | 3.7 | 3.4 | 5.6 | 14. |

## HEREDITY AND DEAFNESS.

The question of the extent to which deafness occurs among different members of the same family is one that has received more or less attention, particularly in recent years, when special investigations are being made as to the transmissibility of physical and mental defects from one generation to another. In order to throw light on this question, the special schedules employed at the enumeration of the deaf and dumb in 1910 and the enumeration of the deaf in 1890 and 1900 requested information regarding deafness among relatives. The inquiries on this subject inserted on the schedule for 1910 asked whether either parent of the deaf and dumb person was also deaf, and also whether any of his brothers or sisters or children, if he had any, were deaf, and if so, their number. As statistics tend to show that defects are especially likely to occur among the children of parents who are related to each other, an inquiry was also included asking whether or not the parents of the deaf and dumb person were first cousins. The data obtained by means of these several inquiries are summarized in General Table 16 (p. 135), in which the deaf and dumb population returning the schedules is classified in detail according to the answers made to the respective questions.

In considering the statistics presented in General Table 16, and also in other tables dealing with the subject of deafness among relatives, it must be kept in mind that they possess certain distinct limitations. In particular, it must be remembered that they indicate merely the number of deaf and dumb individuals reporting themselves as having deaf parents, brothers or sisters, or children, and not the number of families having more than one deaf member; in other words, the figures probably give an exaggerated impression of the actual extent, relatively, to which deafness occurs in two or more individuals in the same family, by reason of the fact that where such a situation exists a schedule may have been received from each of the deaf members. This situation may perhaps be made clearer by a specific illustration. Assume that in a given family, in which both the parents are deafmutes, there are three children, all deaf-mutes. If schedules were received from each of these three children these would be tabulated as three cases in which a deaf-mute had both deaf parents and deaf brothers or sisters, although they related to but a single family. If in addition schedules were received from both parents, they would figure in the statistics as two cases where a deaf-mute had deaf children. The same family would thus figure in the statistics five times, so that it is apparent that in studying the figures relative to this general subject considerable allowance must be made for possible duplications of this kind. Of course in many instances where more than one member of the same family was deaf, there may have been no
exaggeration in the statistics, since only one member may have figured in the returns, as the others may not have been deaf-mutes, or if deaf-mutes, may have been dead, or may not have been reported as deaf and dumb by the enumerator, or may have neglected to return the special schedule.
The figures as to deafness among relatives obtained at the census of 1910 can not, of course, even after allowance is made for the limitation just noted, be taken as an indication of the extent to which deafness is hereditary, for the reason that certain forms of hereditary deafness do not ordinarily cause loss of hearing before middle or late middle life, and consequently would only figure in statistics of the deaf and dumb in the exceptional cases where they were accompanied by loss of speech. It is furthermore somewhat uncertain how far the statistics can be taken as an index of the extent to which deaf-mutism is hereditary, since the inquiry as to deafness among relatives asked merely whether the relatives in question were deaf, and not whether they were deaf and dumb, and it is probable that in a considerable number of cases deaf-mutes may have had deaf relatives who were not deaf-mutes. Inasmuch, however, as congenital deafness is largely due to hereditary causes, where a person suffering from congenital deaf-mutism reports the existence of deaf parents, brothers or sisters, or children there is a strong presumption that they also are afflicted with hereditary deaf-mutism. For this reason, when taken in conjunction with the returns as to age when hearing was lost and cause of deafness, the figures as to deafness among relatives probably indicate in a more or less general way the extent to which deaf-mutism is hereditary, although they can not be taken as an accurate measure.
The total number of deaf-mutes returning special schedules who reported themselves as having deaf parents, brothers or sisters, or children was 4,639, representing 24.2 per cent, or nearly one-fourth, of the total. Of these, 420, or about one-tenth, had deaf parents, the remainder reporting either deaf brothers or sisters or deaf children. Of those having deaf parents, 270, or about two-thirds, also had deaf brothers or sisters, and 28 had deaf children, 22 having both. Of the 4,219 reporting deaf brothers or sisters or deaf children but no deaf parents, by far the greater number $(3,951)$ reported deaf brothers or sisters only, the number reporting deaf children only being 142 and the number reporting both deaf brothers or sisters and deaf children being 126. The total number reporting deaf brothers or sisters was 4,347 , or more than nine-tenths of the total number reporting deaf relatives, and the total number reporting deaf children was 296.
From the figures just given it is apparent that heredity is on the whole a minor factor in bringing about deaf-mutism, especially as a certain proportion of the cases where deaf-mutes reported deaf relatives
represent instances where two or more members of the same family lost their hearing from the same contagious or infectious disease. This was indeed to be expected, in view of the extent to which deafness results from causes such as cerebrospinal fever, scarlet fever, and accident or other violence, where the loss of hearing is due to injury or infection from without. As a matter of fact, although the circumstance that deaf-mutism is to a considerable extent a hereditary defect is probably much more generally recognized than the circumstance that blindness may result from hereditary influences, only 2.2 per cent of the deafmutes from whom the Bureau of the Census received satisfactory schedules at the census of 1910 reported themselves as having deaf parents, whereas 3.7 per cent of the blind returning schedules reported blind parents. This more general recognition of hereditary influence in the case of deaf-mutism than in that of blindness is probably due mainly to the fact that in a considerable proportion of the cases of hereditary blindness vision is not lost until late in life, when the blind relatives of the previous generation are dead, whereas hereditary deaf-mutism is probably in most instances congenital.

Of the 420 persons reporting deaf parents, 289 , or more than two-thirds, reported that both parents were deaf; of the remainder, 71, or about one-sixth of the total number reporting deaf parents, reported their father only as deaf, and 60, or one-seventh, their mother only as deaf. These figures present a striking contrast to the corresponding figures for the blind, as out of the 1,073 blind persons reporting blind parents at the census of 1910, only 31 , or 2.9 per cent, reported both parents as blind, while 478, or 44.5 per cent, reported their father alone as blind, and 564, or 52.6 per cent, their mother alone. The circumstance that where a deaf-mute reported deaf parents at all both parents were usually deaf whereas among the blind reporting blind parents it was the exception for both parents to have defective vision is probably due in some measure to a greater frequency of marriage between deaf-mutes than between blind persons. Blindness, including some of the most important forms of hereditary blindness, in the great majority of cases does not occur until adult life, so that the blind persons who have married at all have done so in the greater number of instances before the loss of their sight, and hence in most cases have married persons of normal vision. Deaf-mutes, on the contrary, become so early in life and in consequence of the handicap thus imposed upon them in respect to their intercourse with others tend more to marry those of their own kind (see p. 32). In view of the large proportion of deaf-mutes who lost their hearing from adventitious causes, and whose deafness is therefore not hereditary in character, and of the further fact that congenital deafness may be due to a variety of conditions, the relatively large number of cases in which
both parents were deaf can not be taken as conclusive evidence of a special risk of deafness in the offspring where both parents are deaf, inasmuch as the parents may be suffering from different forms of deafness, although where persons suffering from the same form of hereditary deafness intermarry, there is undoubtedly a much greater probability of deaf offspring than where one parent only is so afflicted. The fact that in the majority of instances where only one deaf parent was reported it was the father who was deaf is, of course, what would normally be expected in view of the general excess of males among the deaf and dumb. The circumstance that among the blind who reported a blind parent it was more often the mother who was blind is probably in part accounted for by the fact that glaucoma, one of the causes of blindness which appears in successive generations, attacks women more frequently than men, and also by the fact that women survive more frequently than men to the ages when cataract, another cause which is hereditary, most frequently occurs.
In any consideration of the extent to which physical defects are the result of hereditary influence, more or less attention is given at the present time to the question as to how far the persons suffering from the defects in question are the children of consanguineous marriages, since investigation has shown that there is a strong tendency for any defect to which there may be a family predisposition to appear in the offspring of such marriages, even if the parents themselves are free. In order to obtain information as to the extent to which the deaf and dumb are the offspring of consanguineous marriages the special schedule contained, as already noted, an inquiry as to whether or not the parents of the deaf and dumb person were first cousins. The results of this inquiry are summarized in Table 70, which classifies the total deaf-mute population in 1910 returning special schedules and those reporting that their parents were first cousins according to whether or not they reported any deaf relatives.

| Table 70 <br> gTatUS AS TO DEAF RELATTVES. | deaf and dumb population for whom SPECLAL SCHEDULES WERE RETURNED: 1910. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total. |  | With parents first cousins. |  |  |
|  | Number. | Per cent distribution. | $\begin{aligned} & \text { Numa- } \\ & \text { ber. } \end{aligned}$ | Per cent distribution. | Per cent of total. |
| Total. | 19,153 | 100.0 | 883 | 100.0 | 4.6 |
| Reporting deaf relatives. Not reporting deal relatives | 4,639 14,514 | 24.2 75.8 | 475 | $\begin{array}{r} 83.8 \\ \therefore 46.2 \end{array}$ | 10.2 2.8 |

Of the 19,153 persons who returned satisfactory schedules, 883 , or 4.6 per cent, were the children of first cousins. This may be regarded as a relatively high proportion, as it is hardly probable that in every hundred marriages even four are marriages of first cousins. The percentage is, moreover, much larger
than the corresponding percentage for the blind population returning special schedules (2.4); in fact the absolute number of deaf-mutes reporting that their parents were first cousins exceeded the number of blind so reporting by 174 , although the total number returning schedules was 10,000 less. These facts indicate that the subject of consanguineous marriages is one of some importance for a study of deaf-mutism.

The statistics as to the number of deaf and dumb persons reporting deaf parents, brothers or sisters, and children bring out most clearly the reason why the question of consanguinity in the parents is regarded as possessing so much interest. As already stated, the total number of deaf and dumb persons reporting deaf relatives was 4,639 , representing 24.2 per cent, or nearly one-fourth, of the total number returning schedules. Of those whose parents were first cousins, however, 475 , representing 53.8 per cent, or considerably more than one-half, reported deaf relatives; in other words, persons with deaf parents, brothers or sisters, or children were more than twice as numerous relatively among those whose parents were first cousins as among those whose parents were not thus related. To make the comparison in another way, while persons whose parents were first cousins formed only 4.6 per cent of the total deaf and dumb population returning schedules, they formed 10.2 per cent of those reporting deaf relatives. The following table summarizes the facts concerning the deaf and dumb persons whose parents were first cousins and who reported deaf relatives, and shows for comparison the statistics for all deaf and dumb persons reporting such relatives.

| Table 71 <br> btatus as to deaf relatives reported. | deaf and dumb population for WHOM SPECIAL SCHEDULES WERE returned reporting deaf redATIVES: 1910. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total. |  | With parents first cousins. |  |  |
|  | $\begin{aligned} & \text { Num- } \\ & \text { ber. } \end{aligned}$ | $\begin{gathered} \text { Per } \\ \text { cent } \\ \text { distri- } \\ \text { bu- } \\ \text { tion. } \end{gathered}$ | Number. | $\begin{gathered} \text { Per } \\ \text { cent } \\ \text { distri- } \\ \text { bur- } \\ \text { tion. } \end{gathered}$ | Per cent of total. |
| Total reporting deal relatives <br> Reporting one or both parents deaf. | 4,639 | 100.0 | 475 | 100.0 | 10.2 |
|  | 420 | 9.1 | 11 | 2.3 | 2.6 |
| Not reporting other deaf relatives. Reporting other deaf relatives. <br> Reporting both deal children and deai brothers or sisters. <br> Reporting deai children only <br> Reporting deaf brothers or sisters only. | 144 | 3.1 | 2 | 0.4 | . 4 |
|  | 276 | 5.9 | 9 | 1.9 | 3.3 |
|  | 22 | 0.5 |  |  |  |
|  | 6 | 0.1 | 8 | 0.2 | (1) |
|  | 248 | 5.3 | 8 | 1.7 | 3.2 |
| Not reporting a deal parent. <br> Reporting both deaf children and deaf brothers or sisters <br> Reporting deaf childiren only. $\qquad$ <br> Reporting deaf brothers or sisters only. | 4,219 | 90.9 | 464 | 97.7 | 11.0 |
|  | $\begin{array}{r} 128 \\ 1192 \\ 3,951 \end{array}$ | $\begin{array}{r} 2.7 \\ 3.1 \\ \mathbf{8 5 . 2} \end{array}$ | 8444 | 1.70.895.2 | 6.3 |
|  |  |  |  |  | 11.4 |

${ }^{1}$ Per cent not shown where base is less than 100.
Most of the deaf-mutes whose parents were first cousins and who also reported deaf relatives reported deaf brothers or sisters, only 3 of them having deaf parents and only 5 of them deaf children without having deaf brothers or sisters. This was perhaps to have been
expected, since the importance of consanguineous marriages in any study of heredity lies in the fact already mentioned that any latent tendency toward a physical or mental defect is especially likely to make itself apparent in the offspring when both of the parents possess this tendency, so that the children of such marriages will frequently be defective where both parents are normal.

General Table 17 (p.143) classifies the total and the male and female deaf and dumb population in each race and nativity class who returned schedules according to their status as to relationship and hearing of parents. Table 72 shows the distribution by race and nativity of the total number reporting as to the hearing of their parents, classified according to the status of their parents as to hearing, and also gives the percentage reporting one or both parents as deaf among the total number in each race and nativity class who reported as to the hearing of their parents.

| Table 72 <br> race and nativity. | DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED REPORTING AS TO hearnag of parents: 1910. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total. | Reporting one or both parents as deaf. |  |  | Reporting neither parentas deaf. |
|  |  | Number. | Per cent distribution. | Per cent of total. |  |
| All classes. | 18,833 | 420 | 100.0 | 2.2 | 18,413 |
| White. | 17,745 | 406 | 96.7 | 2.3 | 17,339 |
| Native Foreign-born | 15,963 1,782 | 392 14 | 93.3 3.3 | 2.5 0.8 | 15,571 |
| Colored. | 1,088 | 14 | 3.3 | 1.3 | 1,074 |
| Negro. Other colored. | 1,024 | 13 1 | 3.1 0.2 | (1) 1.3 | 1,011 63 |

${ }^{1}$ Per cent not shown where base is less than 100.
The proportion which persons whose parents were also deaf formed of the total number reporting was much higher ( 2.5 per cent) for the native whites than for any other race and nativity class for which the percentage is given in the table. For the Negroes the percentage was only 1.3 , while for the foreign-born whites it was only 0.8. The low percentage for the foreign-born whites is probably accounted for by the fact that comparatively few deaf-mutes emigrate from the country in which they live, so that the majority of the foreign-born white deaf-mutes in the United States are persons who were brought into the country by their parents as children and who subsequently lost their hearing. The low proportion for the Negroes is probably explained by the fact that Negro deaf-mutes appear to marry less frequently than white deaf-mutes (see Table 30, p. 34).

Table 73, on the next page, gives the distribution by race and nativity of the deaf and dumb who reported as to the relationship of their parents, with the percentage which those whose parents were first cousins represented of the total shown for each race and nativity class.

| Table 73 <br> bace and nativity. | deaf and dumb population for whom special scaedules were returned beporting as to relationship of parents: 1910. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total. | Parents first cousins. |  |  | Parents not first cousins. |
|  |  | Number. | Per cent distribution. | Per cent of total. |  |
| All classas. | 18,301 | 883 | 100.0 | 4.8 | 17,418 |
| White. | 17, 268 | 851 | 96.4 | 4.9 | 16,417 |
| Native. Foreign-born.. | $\begin{array}{r} 15,563 \\ 1,705 \end{array}$ | 776 75 | $\begin{array}{r} 87.9 \\ 8.5 \end{array}$ | 5.0 4.4 | $\begin{array}{r} 14,787 \\ 1,630 \end{array}$ |
| Colored. | 1,033 | 32 | 3.6 | 3.1 | 1,001 |
| Negro. <br> Other colored.... | 972 61 | 30 2 | $\begin{aligned} & 3.4 \\ & 0.2 \end{aligned}$ | (1) ${ }^{3.1}$ | 942 59 |

${ }^{1}$ Per cent not shown where base is less than 100.
The proportion of deaf and dumb persons whose parents were first cousins was higher for the native whites (5 per cent) than for any other class for which the percentage is given in the table. For the foreignborn whites the percentage was 4.4, while for the Negroes it was 3.1. These variations are somewhat difficult to explain; the circumstance that the proportion failing to report whether or not their parents were first cousins was higher among the Negroes than in either of the white classes suggests the possibility, however, that other Negroes may have replied in the negative through ignorance of the facts.

General Table 18 ( $\mathbf{p} .145$ ) shows the distribution according to age when hearing was lost of the deaf and dumb population for whom special schedules were received, classified according to relationship of parents and status of parents as to hearing. Table 74 shows the distribution according to age when hearing was lost of the deaf and dumb population for whom special schedules were received, classified according to whether or not their parents were deaf.

Of the deaf-mutes who reported that both parents were deaf, 71.6 per cent, or considerably more than two-thirds, were congenitally deaf, and of those who reported one parent only as deaf, 61.1 per cent, or three-fifths; of those who reported neither parent as deaf, on the other hand, only 38.7 per cent, or considerably less than two-fifths, were congenitally deaf. The proportion of congenital cases was practically the same for those reporting their father only as deaf as for those who reported their mother only as deaf. It is, of course, not surprising that the percentage of congenital cases should be somewhat higher for those reporting two deaf parents than for those reporting only one; that the difference is not still greater is explained by the fact that deaf-mutes who intermarry are probably in a considerable number of cases suffering from different forms of deafness, and as deafness from nonhereditary causes is so far as known not transmissible, the probability of deaf offspring is no greater when a person who is deaf from hereditary causes marries one who is adventitiously deaf than when he
marries a person of normal hearing. The proportion reporting hearing as lost in each definite age period after birth was in practically every instance much higher for those whose parents could both hear than for those who reported one or both parents as deaf.


1 Includes those for whom the age when hearing was lost was not reported.
2 Per cent distribution not shown, as base is less than 100.
The schedule to be filled out for deaf-mute children of school age in Germany, to which reference has already been made, included inquiries as to the presence in the parents of congenital deaf-mutism, acquired deafmutism, and deafness unaccompanied by mutism. In the published statistics for the period from January 1, 1902, to February 1, 1905, however, only the figures for the congenitally deaf are shown, and owing to differences in the method of presentation, it is impossible to make any detailed comparison with similar figures for the United States. On account of the interest attaching to this subject, however, Table 75 summarizes the results obtained, comparative figures for the United States being presented as far as practicable.

The report of the Imperial Health Office from which the figures for the German Empire were taken does not show the number of cases in which both parents of the deaf-mute were deaf, so that it is impossible to make any comparison with the United States as to
the proportion of the congenitally deaf who reported that one or both parents were deaf. Of the congenital deaf-mute children of school age in Germany for whom statistics are presented in Table 75, however, 1.9 per cent reported that they had a deaf father and 2.1 per cent that they had a deaf mother, as compared with corresponding percentages of 3.3 and 3.2 for the congenital deaf-mutes in the United States returning schedules at the census of 1910. The reason for the higher percentage for the United States is difficult to determine, and it is probably due to a variety of factors. It will be observed that, contrary to the situation among the deaf-mutes covered by the figures for the United States, a larger number of the German children of school age reported their mother deaf than their father. This was due to the larger number of cases in which the mother suffered from congenital deaf-mutism, as the cases of acquired deaf-mutism and of total deafness without mutism were slightly more numerous where the father was deaf; the reason for the difference is, however, not apparent. In the great majority of instances where a congenital deaf-mute of school age in Germany was reported as having a deaf parent, the parent also was a congenital deaf-mute; 140, or practically five-sixths (82.4 per cent), of the 170 deaf parents reported suffered from this form of the defect, while only 24 were adventitious deaf-mutes and only 6 suffered from deafness in both ears not combined with mutism.

| Table 75exatus or parents as to hearing. | congentral deafMUTESFOR WHOK SPECIAL SCHEDULES WERE RETURNED IN TEE UNITED ETATES: 1010. |  | congental deafMUTES OF SCHOOL age in germany: JANUARY 1, 1902JUNE 30, 1805 . |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Number. | Per cent of total. | Number. | Per cent of total. |
| Total. | 7,533 | 100.0 | 4,189 | 100.0 |
| Reporting one or botb parents as deaf... | 287 | 3.8 | ( ${ }^{\text {d }}$ | (1) |
| Reporting father as deaf............ | 251 | 3.3 | 81 | 1.9 |
| Congenital deal-mutism.......... | (2) | $\left.{ }^{2}\right)$ | 64 |  |
| Acquired deal-mutism. | (2) | (2) | 13 | 0.3 |
| Deafness in both ears. |  | (2) | 4 | 0.1 |
| Reporting mother as deaf. | 243 | 3.2 | 89 | 2.1 |
| Roporting mother as suffering from- |  |  |  |  |
| Congenital deat-mutism.......... | (2) | (2) | 76 | 1.8 |
| Acquired deal-mutism ........... | (2) | (2) | 11 | ${ }^{0.3}$ |
| Not reporting a deaf parent | 7,246 | 96.2 | (1) | (1) |

1 Number not reported.
2 Not reported separately.
An inquiry as to the existence of deaf and dumb relatives was also made at the census of 1911 in Ireland. The results, however, present a marked contrast to those just referred to, as out of 2,325 congenital deaf-mutes enumerated, only 1 reported a mute father and only 2 a mute mother, these representing altogether only 0.1 per cent of the total.
Table 76 shows for the deaf and dumb in 1910 for whom special schedules were returned the distribution
according to age when hearing was lost of those whose parents were first cousins, in comparison with that of those whose parents were not first cousins.

| Table 76 <br> AGE WHEN HEARING WAS LOST. | DEAF AND DUMB POPULATION FOR WHOM SPECLAL SCHEDULES WERE RETURNED: 1910. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total. |  | Parents first cousins. |  | Parents not first cousins. |  | Not reporting as to re lationship of parants. |  |
|  | Number. | Per cent dis-tri-bution. | Number. | Per cent dis-tri-bution. | Number. | Per cent dis-tri-bution. | Num- | Per cent dis-tri-bution. |
| Total $\qquad$ <br> Deafness congenital. $\qquad$ <br> Deafness acquired ${ }^{1}$ $\qquad$ | 19,153 | 100.0 | 883 | 100.0 | 17,418 | 100.0 | 852 | 100.0 |
|  | $\begin{array}{r} 7,533 \\ 11,620 \end{array}$ | $\begin{aligned} & 39.3 \\ & 60.7 \end{aligned}$ | $\begin{aligned} & 553 \\ & 330 \end{aligned}$ | $\begin{aligned} & 62.6 \\ & 37.4 \end{aligned}$ | $\begin{array}{r} 6,585 \\ 10,823 \end{array}$ | $\begin{aligned} & 37.9 \\ & 62.1 \end{aligned}$ | $\begin{aligned} & 385 \\ & 467 \end{aligned}$ | $\begin{aligned} & 45.2 \\ & 54.8 \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |
| At age of - <br> Less than 5 years. | 9,254 | 48.3 | 274 | 31.0 | 8,785 | 50.4 | 195 | 22.9 |
| Less than 1 year...... | $\begin{aligned} & 1,628 \\ & 2,375 \end{aligned}$ | $\begin{array}{r}8.5 \\ 12.4 \\ \hline\end{array}$ | 5882 | 6.3 9.3 | $\begin{aligned} & 1,549 \\ & 2,248 \end{aligned}$ | 8.912.9 | 23 | 2.75.3 |
| 1 year... |  |  |  |  |  |  |  |  |
| 2 to 4 years............. | 5,137 | 26.8 | 133 | 15.1 | 4,882 | 28.0 | 122 | 14.3 |
| Infancy (exact agenot reported) |  | 0.6 |  | 0.3 3 | 1061,503 | 0.68.6 | 60 | 0.6 |
| 5 to 9 years............... | $1,594$ | 0.6 8.3 | 31 |  |  |  |  |  |
| 10 years or over. | 140 | 0.7 | 2 | 0.2 | 113 | 0.6 | 25 | 2.9 |
| At age not reported........ | 632 | 3.3 | 23 | 2.6 | 422 | 2.4 | 187 | 21.9 |

1 Includes those for whom the age when hearing was lost was not reported.
Of the deaf-mutes who stated that their parents were first cousins more than three-fifths ( 62.6 per cent) reported themselves as born deaf, as compared with a corresponding proportion of 37.9 , or less than twofifths, of those whose parents were not first cousins. The proportion losing their hearing in each individual age period subsequent to birth was, on the other hand, distinctly lower for those whose parents were first cousins than for those whose parents were not thus related. These differences are of course explained by the circumstance that the special risk involved in consanguineous marriages arises from the fact that any latent tendency toward a hereditary defect is much more likely to become evident in the offspring of a marriage when both parents possess this latent tendency than when only one possesses it. As such defects to a considerable extent either are congenital or manifest themselves early in life, it was to be expected that the deaf-mute children of first cousins would comprise a relatively high proportion of persons who were congenitally deaf.
The schedule for deaf-mute children of school age in Germany contains an inquiry asking whether the parents were related by blood, and one of the inquiries on the special schedules for the deaf and dumb at the census of 1911 in Ireland was framed in such a way as probably to secure a report of most of the instances where the deaf-mute was the child of first cousins, although such a report was not specifically required. ${ }^{1}$ Among the 4,189 congenital deaf-mutes of school age in Germany included in the returns for the period beginning January 1, 1902, and ending June 30, 1905, 191,

[^20]or 4.6 per cent, were reported as being the children of first cousins, a percentage considerably lower than the corresponding figure for congenital deaf-mutes of all ages in the United States ( 7.3 per cent), although the reason for the difference is difficult to determine. It is impracticable to make any exact comparison between the returns for the United States and those for Ireland, as the census report for the latter country does not give the total number of deaf and dumb enumerated who were the children of first cousins but the number of individual cases of deaf-mutism reported as occurring in families where the parents were cousins. The number of such cases tabulated was 126, of which 121 were congenital cases and 5 acquired cases. If all of these deaf-mutes were enumerated at the census of 1911, 4 per cent of the total deaf and dumb enumerated and 5.2 per cent of the congenitally deaf were the children of cousins. These figures, however, can only be regarded as approximations, as it is not entirely clear whether the published figures comprise only persons actually enumerated at the census or also include
other deaf-mute members of their families, in addition to which a further factor of uncertainty results from the circumstance that on the one hand the schedule did not definitely require that wherever the parents of the deaf and dumb persons were cousins this fact should be indicated, while, on the other hand, the inquiry did not refer specifically to first cousins, but merely to "cousins," so that some instances where the parents were of more distant relationship than first cousins may have been included. As in the case of the United States, however, the figures serve to show the importance of consanguineous marriages as a factor in congenital deaf-mutism.

General Table 19 (p. 146) shows the distribution according to reported cause of deafness of the deaf and dumb population returning special schedules in 1910, classified according to relationship of parents and status of parents as to hearing. In Table 77 the distribution according to cause is given for those reporting deaf parents in comparison with those whose parents could hear.


1 Leen than one-tenth of 1 per cent.

In view of the great difference between those who reported one or both of their parents as deaf and those who reported that both of their parents could hear as regards the proportion of congenital cases, it would be expected that the importance of the principal causes of adventitious deafness would differ widely for the two classes. Thus only 1 of the 289 persons who reported that both parents were deaf and 4 of the 131 who reported that one parent only was deaf gave meningitis as a cause of deafness, and 2 in each instance gave brain fever, as compared with 1,801 and 921 , representing, respectively, 9.8 and 5 per cent, of those who reported that neither parent was deaf. The number who reported scarlet fever as cause of deaf-
ness among those having deaf parents was somewhat greater, constituting 3.5 per cent of the total for those reporting both parents as deaf and 3.1 per cent for those reporting one parent only as deaf; these proportions, however, are decidedly smaller than that for those reporting neither parent as deaf ( 10.7 per cent). Only 4 ( 1 per cent) of those reporting a deaf parent gave measles as a cause, as against 2.8 per cent of those reporting no deaf parents.

Table 78 shows the distribution according to reported cause of deafness of the deaf-mutes for whom special schedules were returned who reported that their parents were first cousins in comparison with those whose parents were not first cousins.

| Table 78neported cause or deafness. | deaf and dumb population for whom speclal schedules were returned: 1910. |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number. |  |  |  | Per cent distribution. |  |  |
|  | Total. | Parents first cousins. | Parents not first cousins. | Not reporting as to relationship of parents. | Total. | Parents first cousins. | Parents not first cousins. |
| All causes. . | 19,153 | 883 | 17,418 | 852 | 100.0 | 100.0 | 100.0 |
| Causes affecting the external ear. <br> Causes affecting the middle ear. <br> Cuuses producing suppurative condition $\qquad$ <br> Scarlet fever. <br> Measles. <br> Diphtheris. <br> Pneumonia <br> Abscess in the head <br> Disease of the ear. <br> All other causes producing suppurative condition. | 64 | 2 | 60 | 2 | 0.3 | 0.2 | 0.3 |
|  | 4,507 | 146 | 4,258 | 103 | 23.5 | 16.5 | 24.4 |
|  | 3,708 | 117 | 3,502 | 89 | 19.4 | 13.3 | 20.1 |
|  | 2,005 | 60 | 1,893 | 52 | 10.5 | 6.8 | 10.9 |
|  | 525 | 18 | 492 | 15 | 2.7 | 2.0 | 2.8 |
|  | 166 | 5 | 157 | 4 | 0.9 | 0.6 | 0.9 |
|  | 102 349 | 22 | $\begin{array}{r}99 \\ \mathbf{3 2 4} \\ \hline\end{array}$ | 2 3 | 0.5 1.8 | ${ }_{2} 0.5$ | 0.6 |
|  | 339 <br> 237 | 22 6 | 324 | 7 | 1.8 | 2.5 | 1.9 1.3 |
|  | 324 | 5 | 313 | 6 | 1.7 | 0.6 | 1.8 |
| Causes not producing suppurative condition Whooping cough. Catarrh. Colds. <br> All other causes not producing suppurative condition | 789 301 | 29 13 | 716 285 | 14 | 4.1 | 3.3 1.5 | 4.3 |
|  | 186 | 8 | 175 | 3 | 1.0 | 0.9 | 1.0 |
|  | 156 | 4 | 148 | 4 | 0.8 | 0.5 | 0.8 |
|  | 146 | 4 | 138 | 4 | 0.8 | 0.5 | 0.8 |
| All other causes affecting the middle ear. | 10 |  | 10 |  | 0.1 |  | 0.1 |
| Csuses affecting the internal ear................................. | 3,666 | 53 | 3,527 | 86 | 19.1 | 6.0 | 20.2 |
| Causes affecting the labyrinth. Malarial fever and quinine Mumps. <br> All other causes aflecting the labyrinth | ${ }_{128}^{226}$ |  | 118 | 10 5 | 1.2 | 0.8 0.6 | 1.7 |
|  | 85 | 2 | 80 | 3 | 0.4 | 0.2 | 0.5 |
|  | 13 |  | 11 | 2 | 0.1 | ........ | 0.1 |
| Causes affecting the auditory nerve. | 3,399 | 46 | 3,279 | 74 | 17.7 | 5.2 | 18.8 |
| Meningitis....................... | 1,812 | 21 | 1,745 | 46 | 9.5 | 2.4 | 10.0 |
| Brain lever.. Typhoid fover | ${ }^{1} 927$ | 12 | -900 | 15 | 4.8 | 1.4 | 5.2 |
|  | 384 <br> 174 | 7 | 369 166 | 8 | 2.0 | 0.8 | 2.1 |
| Convulsions. <br> All other causes affecting the auditory nerve. | 102 | 2 | 99 |  | 0.5 | 0.2 | 0.6 |
| All other causes affecting the internal ear. | 41 |  | 39 | 2 | 0.2 |  | 0.2 |
| Combination of different classes of causes. | 55 | 2 | 52 | 1 | 0.3 | 0.2 | 0.3 |
| Unclassiflable causes. | 9,869 | 641 | 8,768 | 460 | 51.5 | 72.6 | 50.3 |
| Congenital. |  |  |  |  |  | 62.6 | 37.9 |
| Fralls and blo | $587$ | ${ }^{23}$ |  | 17 | 3.11 | 2.6 | 3.1 |
| Accident.....i.ilial other unclasifisbie causes | 1,692 | 63 | 1,574 | 3 5 | 8.8 | 7.1 | 9.0 |
| Cause unknown or not reported. | 992 | 39 | 753 | 200 | 5.2 | 4.4 | 4.3 |

As in the case of the classes shown in Table 77, the marked difference between the deaf-mutes who reported that their parents were first cousins and those who reported that their parents were not thus related as regards the relative number whose deafness was respectively congenital and acquired brings about a great difference in the relative importance for the two classes of the leading causes of acquired deafness. Thus only 3.7 per cent of those who were the children of first cousins gave meningitis or brain fever as the
cause of deafness, as compared with 15.2 per cent, a proportion four times as great, for those whose parents were not so related. Scarlet fever was assigned as cause by 6.8 per cent of the former and 10.9 per cent of the latter, while the percentages for measles were 2 and 2.8, and those for typhoid fever 0.8 and 2.1, respectively. In practically every case, in fact, the proportion shown for a cause producing acquired deafness was lower for the children of first cousins than for persons whose parents were not first cousins.

Of the 19,153 deaf and dumb persons returning special schedules, 17,852 reported themselves as having brothers or sisters. Of these, the number answering the inquiry as to whether any of their brothers or sisters were deaf was 17,740 , of whom 4,347 , representing 24.5 per cent, or one-fourth, gave an affirmative answer. As already stated, the actual number of families represented was somewhat smaller.

General Table 20 (p. 150) shows the distribution aecording to reported cause of deafness of the deaf and dumb population returning special schedules, classified according to whether or not they reported brothers or sisters and whether or not these brothers or sisters were deaf. Table 79 shows the distribution by cause for those reporting deaf brothers or sisters in oomparison with the distribution for those none of whose brothers or sisters were deaf.

## Table 79



1 Less than one-tenth of 1 per cant.

Of the 4,347 persons who reported that they had deaf brothers or sisters, 3,042 , or more than two-thirds ( 70 per cent), stated that their deafness was congenital, as compared with a corresponding percentage of only 29.5, or considerably less than one-third, for those who reported that none of their brothers or sisters were deaf. To state the situation in another way, two-fifths ( 40.4 per cent) of the congenital deaf-mutes reported deaf brothers or sisters, although persons reporting deaf brothers or sisters represented less than one-fourth ( 22.7 per cent) of the total number of deaf-mutes returning schedules. In contrast to this, only 2.9 per cent of those reporting deaf brothers or sisters gave meningitis or brain fever as the cause of
their deafness, only 5.1 per cent scarlet fever, and only 1.7 per cent measles, as compared with corresponding percentages of 18.2, 12.4, and 3.1 for those reporting no deaf brothers or sisters.
The statistics for deaf-mute children of school age in Germany also show a relatively large number of cases where two or more deaf children were born in the same family. Of the 4,189 congenital deaf-mutes for whom schedules were made out during the period covered by the report already mentioned, 1,241, or considerably more than one-fourth (29.6 per cent), were reported as having brothers or sisters who were also congenital deaf-mutes. In addition, 361 were reported as having brothers or sisters who were
adventitious deaf-mutes and 524 as having brothers or sisters suffering from deafness in both ears unassociated with mutism. Thus the total number of cases in which deaf brothers or sisters were reported was 2,126 , or slightly more than one-half ( 50.8 per cent), whereas the corresponding percentage for congenital deaf-mutes in the United States was 40.4, or two-fifths. The former proportion, however, is somewhat above the true figure, since in the tabulation of the schedules it appeared that the persons making out the reports had in a considerable number of instances erroneously reported the same brothers or sisters more than once, in addition to which there is the possibility of a certain amount of duplication due to the fact that a deaf-mute may have had brothers or sisters suffering from different forms of deafness.

The published returns for the census of 1911 in Ireland do not show the number of the deaf and dumb enumerated who also had deaf brothers and sisters. Statistics are, however, presented showing as far as possible for families in which there were deaf and dumb children the total number of such children reported. The number of such families reported was 1,749 , of which 432 , or about one-fourth ( 24.7 per cent), comprised two or more deaf and dumb children. The total number of deaf and dumb children included in these families was 2,424 , of whom 1,107 , or considerably more than two-fifths ( 45.7 per cent), were in families comprising at least two deaf and dumb children. The total number of children represented was 10,804 , the deaf and dumb representing 22.4 per cent, or somewhat more than one-fifth.

Of the deaf-mutes in the United States who returned the special schedule, 4,397 reported that they had children. The number of these who reported as to the hearing of their children was 4,339 , of whom 296, or 6.8 per cent, stated that they had deaf children.

In this connection it may be noted that of the 9,194 deaf and dumb persons 15 years of age or over who were reported as single and returned special schedules, 284 stated that they had children (see Generul Table 16, p. 135). For a considerable number of these the return of the population enumerator as to their marital condition was doubtless correct. In some instances, however, the return was probably inaccurate, the enumerator either using the term "single" in the sense of "not married," and accordingly reporting widowed and divorced persons as single, or else obtaining his information at second hand from persons who did not know the exact facts. The enumerator's return as to marital condition was, it is true, entered on the special schedule along with certain other data which the person receiving the schedule was requested to verify, but through negligence or for other reasons erroneous returns were in a large number of cases never corrected.
Table 80 shows the distribution by race, nativity, and sex of the deaf and dumb population reporting
children, separate figures being presented for those who had deaf children and those who had not; it also gives the percentage which persons reporting deaf children and reporting none of their children as deaf, respectively, formed of the total number in each class who reported as to the hearing of their children.

| Table 80 <br> race, nativity, and sex. | DEAF AND DUMB POPULATION FOR WHOM SPECLAL SCHEDULES WERE RETURNED REPORTING CHIL DREN: 1910. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total. | Reporting deaf children. |  | Reporting no deaf children. |  | Notreporting as to hearing of children. |
|  |  | Number. | Per cent of total. ${ }^{1}$ | Num- | Per cent of total. ${ }^{1}$ |  |
| All classes. $\qquad$ <br> Male. $\qquad$ <br> Femalo. $\qquad$ | 4,397 | 296 | 6.8 | 4,043 | 93.2 | 58 |
|  | 2,020 2,377 | 141 155 | 7.1 6.6 | 1,856 2,187 | 92.9 93.4 | 23 35 |
| White........................ | 4,200 | 286 | 6.9 | 3,860 | 93.1 | 54 |
| Male $\qquad$ Female. $\qquad$ | 1,970 | 138 | 7.1 | 1,811 | 92.9 | 21 |
|  | 2,230 | 148 | 6.7 | 2,049 | 93.3 | 33 |
| Native. | 3,650 | 263 | 7.3 | 3,340 | 92.7 | 47 |
|  | 1,706 | 128 | 7.6 | 1,560 | 92.4 | 18 |
| Male.t................ | 1,944 | 135 | 7.0 | 1,780 | 98.0 | 29 |
| Foreign-born Male. Female $\qquad$ | 550 | 23 | 4.2 | 520 | 95.8 | 7 |
|  | 264 | 10 | 3.8 | 251 | 96.2 | 3 |
|  | 286 | 13 | 4.6 | 269 | 95.4 | 4 |
| Colored........................ | 197 | 10 | 5.2 | 183 | 94.8 | 4 |
| Male. | 50 | 3 | 6.3 | 45 | 93.8 | 2 |
|  | 147 | 7 | 4.8 | 138 | 95.2 | 2 |
|  | 185 | 10 | 5.5 | 171 | 94.5 | 4 |
|  | 47 | 3 | 6.7 | 42 | 93.3 | 2 |
|  | 138 | 7 | 5.1 | 129 | 94.8 | 2 |
| Other colored. | 12 |  |  | 12 | 100.0 |  |
| Male. | 3 |  |  | 3 | 100.0 | . |
|  | 9 |  |  | 9 | 100.0 | . |

${ }^{1}$ Based upon the population reporting as to hearing of children.
The percentage reporting deaf children was slightly higher for males than for females. Among the different race and nativity classes for which the percentage reporting deaf children is given in the table, the native whites show the highest percentage (7.3), followed by the Negroes, with 5.5, while the foreignborn whites show the lowest percentage (4.2), probably by reason of the low percentage of congenital deafmutes in this class. The high proportion for native whites as compared with Negroes is at first sight somewhat surprising, in view of the much higher proportion of congenital deaf-mutes in the latter class. It is probably explained, however, by the fact that marriage is less common among Negro deaf-mutes than among white.
Table 81, on the next page, shows the distribution according to age when hearing was lost of the deaf and dumb population reporting children, classified according to whether or not they had any deaf children.
Of those who reported deaf ohildren, more than onehalf ( 53.7 per cent) reported themselves as born deaf, as compared with somewhat more than one-fourth ( 28.4 per cent) of those who reported that none of their children were deaf.

| Table 81 <br> AgE Whey hearing was lost. | deaf and dumb population for whom greCIAL SCHEDULES WERE RETURNED REPORTING CHILDREN: 1910. |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total. |  | Reporting deaf children. |  | Reporting no deaf children. |  | Not re-porting as to hearing of children. |
|  | Number. | Per cent distri- bu- tion. | Number. | $\begin{gathered} \text { Per } \\ \text { cent } \\ \text { distri- } \\ \text { bu- } \\ \text { tion. } \end{gathered}$ | Num- | $\begin{array}{\|c\|} \text { Per } \\ \text { cent } \\ \text { distri- } \\ \text { bu- } \\ \text { tion. } \end{array}$ |  |
| Total. | 4,397 | 100.0 | 296 | 100.0 | 4,043 | 100.0 | 58 |
| Deafness congenital.................. | 1,340 | 30.5 | 159 | 53.7 | 1,149 | 28.4 | 32 |
| Deafness acquired ${ }^{1}$ | 3,057 | 69.5 | 137 | 46.3 | 2,894 | 71.6 | 26 |
| At age of - <br> Less than 5 years. $\qquad$ | 2,317 | 52.7 | 112 | 37.8 | 2,187 | 54.1 | 18 |
| Less than 1 year............... | 300 | 6.8 | 15 | 5.1 | 2, 284 | 7.0 | 1 |
| 1 year.......................... | 477 | 10.8 | 26 | 8.8 | 448 | 11.1 | 3 |
| 2 to 4 years.................... | 1,527 | 34.7 | 69 | 23.3 | 1,444 | 35.7 | 14 |
| Infancy (exact age not reported) | 13 | 0.3 | 2 | 0.7 | 11 | 0.3 |  |
| 5 to 9 years... | 604 | 13.7 | 17 | 5.7 | 584 | 14.4 | 3 |
| 10 years or over................... | 40 | 0.9 | 1 | 0.3 | 38 | 0.9 | 1 |
| At age not reported................ | 96 | 2.2 | 7 | 2.4 | 85 | 2.1 | 4 |

1 Includes those for whom the age when hearing was lost was not reported.

General Table 21 (p. 151) shows the distribution according to reported cause of deafness of the deaf and dumb population reporting children, classified according to whether or not they had deaf children. Table 82 shows the per cent distribution on the same basis of the deaf and dumb population reporting children.

The differences with respect to cause of deafness between those who reported deaf children and those whose children could all hear are in general much the same as when the classification is based upon the status of the parents or brothers and sisters as to hearing. Only 7.4 per cent of those having deaf children reported their deafness as due to meningitis or brain fever, as compared with 18.9 per cent of those whose children could all hear; the corresponding percentages for scarlet fever were 10.8 and 18.3, respectively, for measles 2.4 and 2.7 , respectively, and for typhoid fever 1 and 2.6 , respectively.

\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline \multirow[t]{3}{*}{Table 28} \& \multicolumn{7}{|l|}{deaf and dumb population for whom spectal schedules were returned reporting chlddaen: 1910.} \\
\hline \& \multicolumn{4}{|c|}{Number.} \& \multicolumn{3}{|c|}{Per cont distribution.} \\
\hline \& Total. \& Reporting deat children. \& Reporting no deaf children. \& Not reporting as to hearing of children. \& Total. \& Reporting deaf children \& Reporting no deal children. \\
\hline \multirow[t]{3}{*}{\begin{tabular}{l}
All causes. \\
Causes affecting the external ear. \\
Causes affecting the middle ear.
\end{tabular}} \& 4,397 \& 296 \& 4,043 \& 58 \& 100.0 \& 100.0 \& 100.0 \\
\hline \& \multirow[t]{2}{*}{\[
\begin{array}{r}
19 \\
1,305
\end{array}
\]} \& \& \multirow[t]{2}{*}{\[
\begin{array}{r}
19 \\
1,227
\end{array}
\]} \& \multirow[t]{2}{*}{} \& 0.4 \& \(\ldots\) \& 0.5 \\
\hline \& \& 70 \& \& \& 29.7 \& 23.6 \& 30.3 \\
\hline Causes producing suppurative condition. \& 1,139 \& 57 \& 1,076 \& - \({ }^{6}\) \& 25.9 \& \begin{tabular}{r}
23.6 \\
\hline 19.3
\end{tabular} \& 26.6 \\
\hline Scarlet fever.... \& \multirow[t]{6}{*}{\[
\begin{array}{r}
776 \\
118 \\
36 \\
15 \\
60 \\
58 \\
76
\end{array}
\]} \& \multirow[t]{3}{*}{57
32
7
3} \& \multirow[t]{2}{*}{\[
\begin{aligned}
\& 739 \\
\& 111
\end{aligned}
\]} \& \multirow[t]{2}{*}{-............} \& 17.6 \& 10.8 \& 18.3 \\
\hline Measles..... \& \& \& \& \& \multirow[b]{2}{*}{0.8} \& 12.4 \& 18.3
27 \\
\hline Diphtheria.... \& \& \& \multirow[t]{2}{*}{33
15
5} \& ……............ \& \& 1.0 \& \multirow[t]{2}{*}{0.8} \\
\hline Abscess in the head. \& \& \& \& \& 0.3
1.4 \& ........ 20 \& \\
\hline Disease of the ear.......................... \& \& 6
5 \& \multirow[t]{2}{*}{54
52
72} \& 1 \& 1.3 \& 1.7 \& 0.4

1.3 <br>
\hline All other causes producing suppurative cond \& \& 4 \& \& \& 1.7 \& 1.4 \& 1.8 <br>
\hline Causes not producing suppurative condition. \& 164 \& 13 \& 149 \& 2 \& 3.7 \& 4.4 \& 3.7 <br>
\hline Whooping oough. \& \multirow[t]{4}{*}{61
25
47
31} \& \multirow[t]{4}{*}{5
3
3
3

2} \& \multirow[t]{4}{*}{$$
\begin{aligned}
& 56 \\
& 21 \\
& 43 \\
& 29
\end{aligned}
$$} \& \multirow{4}{*}{${ }^{-}$} \& \multirow[t]{4}{*}{\[

$$
\begin{aligned}
& 1.4 \\
& 0.6 \\
& 1.1 \\
& 0.7
\end{aligned}
$$

\]} \& \multirow[t]{4}{*}{\[

$$
\begin{aligned}
& 1.7 \\
& 1.0 \\
& 1.0 \\
& 0.7
\end{aligned}
$$
\]} \& \multirow[t]{4}{*}{1.4

0.5
1.1
0.7} <br>
\hline Catarrh........... \& \& \& \& \& \& \& <br>
\hline Colds....................... \& \& \& \& \& \& \& <br>
\hline All other causes not producing suppurative \& \& \& \& \& \& \& <br>

\hline All other causes affecting the middle ear. \& \multirow[t]{2}{*}{$$
\begin{array}{r}
2 \\
1,048 \\
\hline
\end{array}
$$} \& \multirow[t]{2}{*}{\[

28

\]} \& \multirow[t]{2}{*}{\[

$$
\begin{array}{r}
2 \\
1,010
\end{array}
$$

\]} \& \multirow[b]{2}{*}{| 10 |
| ---: |} \& (1) \& \& (1) <br>

\hline Causes affecting the internal ear. \& \& \& \& \& 23.8 \& $$
9.5
$$ \& 25.0 <br>

\hline Causes affecting the labyrinth.. \& \multirow[t]{3}{*}{73
34
36
3
3} \& \multirow[t]{3}{*}{} \& \multirow[t]{3}{*}{72
33
36
3} \& ............... \& 1.7 \& \& <br>
\hline Malarial fever and quinine............ \& \& \& \& \& 0.8 \& 0.3 \& 1.8 <br>
\hline All other causes affecting the labyrinth.. \& \& \& \& \& 0.8
0.1 \& \& 0.9 <br>
\hline Causes affecting the auditory nerve.. \& \multirow[t]{5}{*}{965
464
329
113
26
33
36} \& \multirow[t]{5}{*}{$\begin{array}{r}27 \\ 9 \\ 13 \\ \hline 3\end{array}$} \& 928 \& 10 \& 21.9 \& 0.1 \& \multirow[t]{2}{*}{} <br>
\hline Meningitis....... \& \& \& \multirow[t]{2}{*}{451
315} \& 4 \& \multirow[t]{2}{*}{10.6
7.5} \& 3.1 \& <br>
\hline Brain fever...... \& \& \& \& $\frac{1}{3}$ \& \& \& 11.2
7.8 <br>
\hline Convulsions................ \& \& \& \multirow[t]{2}{*}{$\begin{array}{r}107 \\ 23 \\ \hline 3\end{array}$} \& 3
1 \& 2.6
0.6 \& \multirow[t]{2}{*}{1.0
0.7} \& 26 <br>
\hline All other causes affecting the auditory nerve \& \& \& \& 1 \& 0.8 \& \& 0.6
0.8 <br>
\hline All other causes affecting the internal ear... \& 10 \& ............. \& 10 \& \& 0.2 \& \multicolumn{2}{|r|}{0.2} <br>

\hline Combination of different classes of causes. \& \multirow[t]{2}{*}{$$
\begin{array}{r}
14 \\
1,849
\end{array}
$$} \& 2 \& 12 \& \& 0.3 \& 0.7 \& 0.3 <br>

\hline Unclassliable causes. \& \& 183 \& 1,630 \& 36 \& 42.1 \& \& <br>

\hline Congenital...... \& \multirow[t]{5}{*}{\[
$$
\begin{array}{r}
1,340 \\
160 \\
8 \\
341 \\
162
\end{array}
$$

\]} \& \multirow[t]{5}{*}{| 159 |
| ---: | ---: |
| 6 |
| 2 |
| 16 |
| 13 |} \& \multirow[t]{4}{*}{\[

$$
\begin{array}{r}
1,149 \\
154 \\
621 \\
321
\end{array}
$$
\]} \& \multirow[t]{4}{*}{32} \& \multirow[t]{4}{*}{$\begin{array}{r}30.5 \\ 30.6 \\ 0.2 \\ 7.8 \\ \hline\end{array}$} \& \multirow[b]{4}{*}{63.7

2.0
0.7
5.4} \& \multirow[b]{4}{*}{28.4
3.8
0.1
7.8} <br>
\hline Falls and blows. \& \& \& \& \& \& \& <br>
\hline Accident........ \& \& \& \& \& \& \& <br>
\hline All other unclassifiable causes \& \& \& \& \& \& \& <br>
\hline Cause unknown or not reported. . \& \& \& 145 \& 4 \& 3.7 \& 4.4 \& 3.6 <br>
\hline
\end{tabular}

[^21]
## EDUCATION.

The results of the inquiries regarding education included in the special schedule for the deaf and dumb at the census of 1910 are summarized in Table 83 for the deaf and dumb returning the schedules, classified according to sex. In this and other tables relating to the education of the deaf and dumb those reporting attendance at more than one kind of school other than an institution for the deaf have been tabulated only under the school of highest grade. Thus, if a deaf and dumb person reported that he had attended both a common school, a high school or academy, and a college or university, he was tabulated only under the last-named heading. Children under 5 years of age have been excluded from this and all other tables relating to education, as they were below the age when school attendance usually begins.

| Table 83 | deaf and dumb population 5 years of AGE OR OVER FOR WHOM SPECLAL SCEEDOLES WERE RETURNED: 1910. 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total. |  | Male. |  | Female. |  |
|  | Number. | Per cent dis-tri-bution. ${ }^{2}$ | Number. | Per cent dis-tri-bution. ${ }^{2}$ | Number. | Per cent dis-tri-bution. ${ }^{2}$ |
| Total <br> Having attended school. | 18,850 | 100.0 | 10,343 | 100.0 | 8,507 | 100.0 |
|  | 15,736 | 84.6 | 8,709 | 85.4 | 7,027 | 83.7 |
| Having attended special school for the deat. | 15,388601 | 82.7 | 8,522329 | 83.53.2 | 6,866272 | 81.8 |
| Having attended other schools also.. |  | 3.2 |  |  |  | 3.2 |
| Common school only. <br> High school or academy. | 430 | 2.3 | 233 | 2.3 | 197 | 2.3 |
|  | 72 | 0.4 | 41 | 0.4 | 31 | 0.4 |
| University or college...................- | 34 | 0.2 | 23 | 0.2 | 11 | 0.1 |
| Schools of miscellaneous character. Bchools of character not reported. . | 44 | 0.2 | 23 | 0.2 | 21 | 0.3 |
|  | 21 | 0.1 | 9 | 0.1 | 12 | 0.1 |
| Having attended no other school.... | 14,787 | 79.5 | 8,193 | 80.3 | 6,594 | 78.5 |
|  | 14,667 | 78.9 | 8,125 | 79.7 | 6,542 | 77.9 |
| Reporting private instruction at home. | 120 | 0.6 | 68 | 0.7 | 52 | 0.6 |
| Not having attended special school for the deaf. | 348 | 1.9 | 187 | 1.8 | 161 | 1.9 |
| Having attended-.................... |  |  |  |  |  |  |
|  | 237 | 1.3 | 124 | 1.2 | 113 | 1.3 |
| Commigh school or academy.............. | 24 | 0.1 | 13 | 0.1 | 11 | 0.1 |
| Schools of miscellaneous character. | 70 | 0.4 | 43 | 0.4 | 27 | 0.3 |
| Schools of character not reported.. | 17 | 0.1 | 7 | 0.1 | 10 | 0.1 |
| Not having attended school. | 2,882 | 15.4 | 1,491 | 14.6 | 1,371 | 16.3 |
| Reporting private instruction at home. Reporting no instruction................. | 2,750 | $\begin{array}{r} 0.6 \\ 14.8 \end{array}$ | $\begin{array}{r} 54 \\ 1,437 \\ 143 \end{array}$ | 0.5 14.1 | 58 1,313 | 0.7 15.6 |
| Not reporting as to education............ | 252 |  |  |  | 109 |  |

1 Includes the small number whose age was not reported.

- Based upon the population reporting as to education.

Of the total deaf and dumb population 5 years of age or over in 1910 who answered the inquiries as to education on the special schedule, 15,736 , representing 84.6 per cent, or more than five-sixths, reported that they had been to school. It seems probable, however, that this proportion may somewhat exaggerate the actual extent of education among deafmutes, since it is practically certain that a much fuller return of the special schedules was obtained from the educated than from the illiterate deaf-mutes. On the other hand, it must be remembered that most of the
deaf-mutes whom the enumerators failed to report as such because they had learned to speak had probably attended school; but it seems doubtful whether the number would have been sufficiently great to counterbalance the high percentage of illiteracy among those who failed to return the schedules.
Most of the deaf-mutes who reported school attendance had been only to a special school for the deaf, such persons constituting 79.5 per cent, or four-fifths, of the total number 5 years of age or over. Only 3.2 per cent reported attendance both at a special school for the deaf and a school primarily for the hearing, and but 1.9 per cent attendance only at a school primarily for the hearing. Of the latter more than twothirds had attended common school only, the number who had attended schools other than common schools but not a school for the deaf representing only 0.6 per cent of the total 5 years of age or over returning schedules.
The schools included under the heading of "Schools of miscellaneous character" comprise a variety of institutions, such as schools for the blind or the feebleminded, private schools which could not be distinguished as equivalent either to elementary or to secondary schools, convents, and various special schools. The inquiry on the schedule in regard to instruction at home was intended to cover only instruction at home by private tutors or other special teachers. From a careful examination of the returns, however, it seems practically certain that in a large number of the cases where instruction at home was reported, the instruction consisted mainly of more or less desultory teaching by parents or other relatives, so that the figures for private instruction shown in the tables can not be regarded as reliable.
The distribution according to education of the male and the female deaf-mutes returning special schedules shows no very pronounced differences. The proportion reporting school attendance was slightly higher for males than for females, the percentages being 85.4 and 83.7, respectively, and the proportion reporting attendance at a special school for the deaf only was also slightly higher for males, 80.3 per cent as compared with 78.5 per cent. The percentage reporting attendance both at schools for the deaf and schools primarily for the hearing, however, was the same for females as for males, and the percentage reporting attendance at schools primarily for the hearing only was practically the same for the two sexes.

General Table 22 (p. 152) shows the distribution according to education of the deaf and dumb population 5 years of age or over in each geographic division and state for whom special schedules were returned. Table 84, on the next page, shows the distribution for the several geographic divisions, with percentages.

The proportion of the deaf and dumb population 5 years of age or over who had attended sohool was
higher ( 90.1 per cent, or nine-tenths) in the Middle Atlantic division than in any other, but was nearly as high in the Pacific division ( 89.9 per cent) and in the East North Central ( 88.1 per cent). In the New England and West North Central divisions also it was in excess of 85 per cent. The proportion was lowest (73.6 per cent, or less than three-fourths) in the South Atlantic division, and was less than 80 per cent in the other two southern divisions. In the main these differences correspond in greater or less degree to the differences in the general percentage of illiteracy in the respective divisions. The high percentage reporting school attendance in the Pacific division, for example, is not surprising in view of the low percentage of illiteracy in that division, which, if the Indians, Chinese, and Japanese, who have a relatively small representation among the deaf-mutes returning special
schedules, are excluded, has a lower percentage of illiteracy than any other. Similarly, the relatively low percentages reporting school attendance among the deaf-mutes in the three southern divisions reflect the high peroentage of illiteracy in the general population of the South; and in the case of the West South Central division a further factor exists in the circumstance that one of the states in the division makes no provision for the education of Negro deaf-mutes. In the case of the Middle Atlantic division, however, the high percentage appears to be explained in part by the circumstance already referred to that certain large institutions for the deaf in this division seem to have given special attention to securing a return of the schedules for their pupils; and it is possible that similar conditions in other divisions may also account in part for the differencesin the percentages which are shown in the table.


The proportion who had attended both a school for the deaf and other schools was highest in New England ( 5.8 per cent) and was also relatively high in the Mountain division (4.4 per cent). The proportion was lowest in the East and West South Central divisions ( 1.3 and 1.5 per cent, respectively). It is, however, somewhat uncertain how far these variations possess any special significance.

The proportion reporting attendance only at a school other than a special school for the deaf was highest ( 3.2 per cent) in the Pacifio division, and next highest ( 2.6 per cent) in the West North Central division, while in the East North Central division it was 2.4 per cent. In the two South Central divisions, on the other hand, it was only 1 per cent, and in the South Atlantic only 1.6 per cent.

General Table 23 (p. 154) shows the distribution according to education of the deaf and dumb population 5 years of age or over in 1910 for whom special scheduler were returned, classified according to race, nativity, sex, and age. Table 85 gives the per cent distribution of the native and foreign-born whites and the Negroes 5 years of age or over without distinction of sex or age.

| Table 85 | per cent distribution of deat AND DUMB POPULATION 5 yEARS OT AGE OR OVER FOR WHOM SPECIAL Schedules were returned: 1910.1 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { A11 } \\ \text { classes. } \end{gathered}$ | White. |  |  | Negro. |
|  |  | Total. | Na | For-eignborn. |  |
| Total. | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Having attended school. | 84.6 | 86.7 | 87.5 | 79.6 | 52.4 |
| Having attended special school for the deaf. | 82.7 | 84.9 | 85.7 | 77.3 | 50.5 |
| Having attended other schools also | 3.2 | 3.3 | 3.3 | 3.6 | 1.7 |
| Common school only.... | 2.3 0.4 | 2.4 0.4 | 2.4 0.4 | 2.6 0.5 | 1.0 |
| University or college... | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 |
| Achools of miscellaneous character | 0.2 | 0.2 | 0.2 | 0.3 | 0.1 |
| Achools of character not reported. | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Having attended no other school. | 79.5 | 81.5 | 82.4 | 73.7 | 48.8 |
| Reporting no other instruction | 78.9 | 80.8 | 81.7 | 73.2 | 48.5 |
| Reporting private instruction at home. | 0.6 | 0.7 | 0.7 | 0.6 | 0.3 |
| Not having attended special school for the deat. <br> Having atte....... | 1.9 | 1.9 | 1.8 | 2.3 | 1.9 |
| Common school only. | 1.3 | 1.3 | 1.2 | 1.4 | 1.4 |
| High school or scaderny. | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Schools of miscellaneous character | 0.4 | 0.4 | 0.4 | 0.6 | 0.1 |
| Schools of character not reported..... | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 |
| Not having attended school. | 15.4 | 13.3 | 12.5 | 20.4 | 47.6 |
| Reporting private instruction at home. Reporting no instruction. | $\begin{array}{r} 0.6 \\ 14.8 \end{array}$ | $\begin{array}{r} 0.6 \\ 12.7 \end{array}$ | $\begin{array}{r} 0.5 \\ 11.9 \end{array}$ | $\begin{gathered} 1.0 \\ 19.4 \end{gathered}$ | 0.9 46.7 |

1 Includes the small number whose age was not reported. In calculating these percentages, persons not reporting as to eifucation have been excluded from the total. Percentages, persons distribution of "Other colored" not shown, as base is less than 100.

The proportion who reported that they had attended school was higher ( 87.5 per cent, or seven-eighths) for the native whites than for any other class shown in the table. For the foreign-born whites it was 79.6 per cent, or about four-fifths, but for the Negroes it was only 52.4 per cent, or somewhat more than onehalf. In the main the differences correspond to the differences in the general literacy of the respective
classes and are probably explained by the same causes. It seems probable that if complete returns had been received from all deaf-mutes the difference between the percentages for the native and foreignborn whites would have been somewhat greater, as there is reason to belieqve that the representation in the returns of the more illiterate elements of the latter class is far from commensurate with their actual importance.
The differences between the three leading classes in regard to the proportion who had attended only a school for the deaf are approximately the same as those in the percentage reporting school attendance of any kind. The proportion reporting attendance at both a special school for the deaf and other schools was, however, higher for the foreign-born whites than for the native whites ( 3.6 per cent as compared with 3.3 per cent), and the proportion reporting attendance at schools primarily for the hearing only was higher for both the foreign-born whites and the Negroes ( 2.3 per cent and 1.9 per cent, respectively) than for the native whites ( 1.8 per cent). The most important factor in bringing about the conditions just noted is probably the circumstance that as compared with the native whites the foreign-born whites and Negroes comprise a somewhat larger proportion of persons who lost their hearing after reaching school age, and consequently had probably been to school before they lost their hearing.
Table 86, on the next page, shows for the deaf and dumb 5 years of age or over in 1910 for whom special schedules were returned, classified according to age at enumeration, the number reporting, respectively, attendance at a special school for the deaf only, attendance at other schools only, and attendance at both kinds of schools, and the number reporting no schooling, together with the per cent distribution by education for each age group.
The proportion reporting school attendance was highest (92.6 per cent, or more than nine-tenths) among those from 15 to 19 years of age, but was nearly as high ( 90.8 per cent) among those from 10 to 14 years of age. Beginning with the age of 20 it decreases, only 67.7 per cent, or a little more than twothirds, of those 65 years of age or over having been to school, a circumstance which brings out clearly the great increase during the past half century in the extent to which deaf-mutes are sent to school. Among those from 5 to 9 years of age only 69 per cent, or somewhat more than two-thirds, had been to school when the schedule was returned. The variations in the percentage reporting attendance at a special school for the deaf for the different age groups correspond closely in the main to those in the percentage reporting attendance at any kind of school. The proportion reporting attendance at schools primarily for the hearing only, however, was highest in the two latest age groups, probably in considerable
measure because these groups comprise a larger proportion than do the earlier groups of persons who had lost their hearing in the later years of childhood or in adult life, and consequently had never been to a school for the deaf; it is also possible that the number who after losing their hearing had attempted to receive instruction by attendance at a school for normal children may be greater relatively among the older deaf-mutes.

The proportion who had attended both a school for the deaf and a school for the hearing shows no very pronounced change between the ages of 10 and 64, ranging from 3 per cent among those from 45 to 64 to 3.9 per cent among those from 25 to 44 ; for the first and last age groups, however, it was much lower, being 1.6 for those from 5 to 9 years of age and 1.7 for those 65 or over.

${ }^{1}$ Includes those whose age was not reported. ${ }^{2}$ Based upon the population reporting as to education. ${ }^{2}$ Per cent distribution not shown, as base is less than 100.

Table 87 shows the distribution according to education of the male and female deaf-mutes 5 years of age or over in 1910 for whom special schedules were returned, classified according to age.

The two sexes show some interesting differences in regard to distribution by education when the different age groups are considered separately. As already pointed out, in the aggregate deaf and dumb population 5 years of age or over for whom special schedules were returned, the percentage who had been to school was higher for males than for females. In the first age group shown in the table, however, that comprising children from 5 to 9 years of age, the percentage who had attended school was higher for females than for males ( 69.3 as compared with 68.8), while for the two following groups, comprising those from 10 to 14 and from 15 to 19 years of age, the percentages were practically the same ( 90.8 and 92.5 , respectively, for males and 90.9 and 92.8, respectively, for females). Among persons from 20 to 24 years of age, on the other hand, the percentage was higher for males ( 90 as compared with 88.6), and the difference increased in the succeeding age groups until among those from 45 to 64 years of age the proportion reporting school attend-
ance was 81.8 per cent for males and 77.2 per cent for females. In the final age group, however, comprising persons of 65 or over, the difference was not so great, the percentage being 68.1 for males and 67.2 for females. These changes tend, on the whole, to suggest that the increase in the extent to which deaf-mutes are being sent to school which the figures seem to indicate has been somewhat greater relatively for females than for males, a supposition borne out by the fact that the statistics of schools for the deaf show that the percentage of females among their pupils has been increasing during the past 30 years. ${ }^{1}$ The comparatively close correspondence between the percentages for those in the final age group is difficult to explain; but it may have some connection with the fact that this age group, unlike the others, shows a higher percentage adventitiously deaf for females than for males, in view of the circumstance that the percentage who had been to school was higher for the adventitiously than for the congenitally deaf (see p. 80).

[^22]

1 Includes the small number whose age was not reported. 1 Based upon the population reporting as to education.

Table 88, on the next page, shows the distribution according to education of the native white, foreignborn white, and Negro deaf and dumb in 1910 for whom special schedules were returned, by age groups.

This table brings out the fact that there has been a very great increase during the past half century in the education of Negro deaf-mutes. Of the 35 Negroes 65 years of age or over for whom special schedules were returned only 2 had ever been to school, although for the native whites in this age group the proportion reporting school attendance was nearly three-fourths ( 73.9 per cent) and for the foreign-born whites it was considerably more than one-half ( 56.8 per cent). Of the Negro deaf-mutes from 45 to 64 years of age, however, nearly one-fourth ( 23.6 per cent) had been to school, although the figures for this race still present a marked contrast to those for the two white classes, of whom five-sixths ( 83.6 per cent) and threefourths (75.2 per cent), respectively, had been to school. The next younger age group, comprising persons from 25 to 44 years of age, shows a striking reduction in the difference between the races as to education, the proportion of Negroes reporting school attendance having increased to 46.9 per cent, or somewhat less than one-half, as compared with percentages of 90.7 for the native whites and 78.6 for the foreign-born whites. The difference continues to decrease in the next two younger age groups, the proportion of Negroes who had been to school being 61 per cent, or about three-fifths, among deaf-mutes 20 to 24 years of age and 71.7 per cent, or considerably more than two-thirds, among those 15 to 19 years of age, as compared with corresponding figures for the native whites of 92.5 and 94.3 , respectively, and for the foreign-born whites of 85.7 and 94.6 , respectively. In the earliest age group for which percentages for all three classes are shown in the table, that comprising children from 10 to 14 years of age, the difference is somewhat greater, although this may perhaps be accounted for in part by the fact that the institutions which, as previously stated, apparently gave special attention to securing the return of the schedules for their inmates were mainly in states where the Negro population was relatively small, or if in states with a large Negro population, received white pupils exclusively. On the whole it is fairly evident that the general increase in the extent to which deaf-mutes are sent to school, which has already been pointed out, has been shared by Negroes to an even greater extent relatively than whites.


[^23]The figures for the foreign-born whites show some interesting variations from those for the native whites. In the two youngest age groups the proportion reporting school attendance was higher for the foreign-born than for the native whites, and in the next group, comprising children from 15 to 19 years old, the percentages were practically the same, that for foreignborn whites still being slightly the higher. In the succeeding age groups the proportion was higher for the native whites; the difference fluctuates from one age group to another, although it is greatest in the oldest group. It is questionable, however, whether the figures can be taken as indicating that the increase in the extent to which deaf-mute children are being sent to school has been greater relatively for the foreign-born than for the native whites; it seems more probable, on the other hand, that the explanation of the higher proportion reporting school attendance among the foreign-born whites at the earlier ages is to be found in the fact that several of the institutions which made a special effort to secure the return of schedules for their inmates were located in large cities having a considerable foreign-born population, so that inmates of such institutions were more numerous relatively among the foreign-born than among the native white children for whom schedules were returned.
General Table 24 (p. 158) shows the distribution according to education of the deaf and dumb population in 1910 returning special schedules, classified according to age when hearing was lost. Table 89 shows a similar distribution, with percentages.

The proportion who had attended school was somewhat higher for those whose deafness was acquired than for the congenitally deaf, seven-eighths (87.2 per cent) of the former stating that they had been to school as compared with four-fifths ( 80.7 per cent) of the latter. This difference is of course due in part to the fact that a certain proportion of those whose deafness was acquired had been to school before losing their hearing. The circumstance that the percentage whose education had been confined to a special school for the deaf was also higher for the adventitiously than for the congenitally deaf ( 81 as compared with 77.2) indicates, however, that other factors probably contributed; but it is difficult to state definitely just what these factors are, although statistics tend to show that the congenitally deaf comprise a larger number who are mentally defective, and hence not likely to be sent to school, than do those whose deafness is acquired. Another circumstance which may have had some influence in causing the difference in the percentages is the relatively high proportion of Negroes among the congenital deaf-mutes, in view of the fact already noted that the percentage of school attendance is much lower among the Negroes than among the whites.

## Table 89

deaf and dumb population 5 years of age or over for whom spectal schedules FERE RETURNED: 1910.1


1 Includes the small number whose age at enumeration was not reported.
2 Includes those for whom the age when hearing was lost was not reported
${ }^{3}$ Includes those reported as having lost their hearing in infancy but without statement as to the exact age
4 Based upon the population reporting as to education.
5 Less than one-tenth of 1 per cent.

The adventitious deaf-mutes losing hearing at the different ages also show some rather pronounced differences with respect to education. The proportion reporting education was highest ( 89 per cent, or nearly nine-tenths) among those who were less than 5 years of age when they lost their hearing. Among those who lost their hearing during the second quinquennium of life the proportion reporting school attendance was somewhat less ( 82.9 per cent, or about five-sixths), while only one-half of those who retained their hearing until they had reached the age of 10 or over reported that they had been to school. The precise reason for
these differences is not apparent. It is probable, however, that the apparent decrease in the percentage of school attendance with the increase in age when hearing was lost is due in part to inaccurate returns. It was apparent from the returns in answer to the inquiry relative to education on the special schedule employed in connection with the census of the blind in 1910 that many blind persons had interpreted the inquiry as applying only to education after the loss of their sight and had consequently reported themselves as having received no education in cases where as a matter of fact they had received more or less
extended instruction at school, merely because the latter had been received before they became blind. It is not unreasonable to suppose that some deaf-mutes who had attended school before they lost their hearing may have similarly reported that they had received no instruction because they had not attended school after they became deaf.

The difference in the percentages whose education had been received entirely at a special school for the deaf among the adventitiously deaf who lost their hearing at the respective ages was even more pronounced than the difference in the percentages reporting school attendance without distinction as to kind of school. Of those who lost their hearing during the first five years of life, more than five-sixths ( 84.5 per cent) had attended only a school for the deaf, of those who lost it between the ages of 5 and 9 , somewhat more than two-thirds ( 69.1 per cent), and of those who lost it after reaching the age of 10 , somewhat more than one-fourth ( 26.9 per cent). The proportion who had attended both a special school for the deaf and other schools was highest ( 10.6 per cent) among those who lost their hearing during the second quinquennium of life, and next highest among those who lost it at the age of 10 or over (5.2 per cent), while it was only 2.9 for those who lost hearing after birth but during the first five years of life. The figures for those
reporting instruction only at a school primarily for the hearing, however, present a pronounced contrast to those just noted, the proportion being 17.9 per cent, or more than one-sixth, for those who were 10 or over when they became deaf, as compared with percentages of only 3.2 for those who lost their hearing between the ages of 5 and 9 and 1.6 for those who lost it before reaching the age of 5 .

## MEANS OF COMMUNICATION AND ABILITY TO READ LIPS.

Means of communication.-A subject of special interest in connection with the deaf and dumb is that of the means of communication which they employ. To secure information on this point, the following inquiry was inserted on the special schedule:
30. In communicating with others, does he employ any or all of the following methods (write "yes" or "no" after each)?

Speech.......................... Writing.
Finger apelling................... The "sign" language.
(Full information is desired as to the ordinary and usual means of communication employed)

The results obtained from this inquiry are summarized in Table 90, which classifies the total and the male and female deaf-mutes 10 years of age or over in 1910 for whom special schedules were returned according to the means of communication ordinarily employed.

${ }^{2}$ Includes the small number whose age was not reported.

Nearly one-half ( 48.7 per cent) of the deaf-mutes 10 years of age or over in 1910 for whom special schedules were returned reported that they used writing, finger spelling, and the sign language as means of communication with others, writing presumably being used in communicating with normal persons unacquainted with the sign language or the finger alphabet, and finger spelling and the sign language in communicating with other deaf-mutes, members of the family, and others who had learned these means of communication. About one-sixth ( 16.9 per cent) reported that they used speech in addition to the means just mentioned, these two groups representing 65.6 per cent, or nearly two-thirds, of the total number. The only other group of any importance numerically was that comprising persons reported as employing miscellaneous methods without speech, who represented one-tenth (10.4 per cent) of.the total; these consisted for the most part of persons who had never been to school, and who communicated with others mainly by natural signs, motions, gestures, etc.

The distribution according to means of communication employed differs somewhat for male and female deaf-mutes. Of the males more than one-half ( 51.4 per cent) employed the combination of writing, finger spelling, and sign language, as compared with 45.3 per cent of the females. The proportion reporting the use of speech in addition to the methods just stated was, however, higher for females than for males, the percentages being 18.5 and 15.6 , respectively. The percentage communicating solely by miscellaneous methods was also slightly higher for females ( 11 as compared with 9.9).

Of the individual means of communication, writing was the method most frequently reported, being employed by three-fourths ( 75.9 per cent) of the total. The proportions reporting the use of finger spelling and of the sign language were, however, nearly as great ( 74.8 and 74.6 per cent, respectively). The great progress that has been made in the teaching of speech to the deaf is reflected by the fact that nearly onefourth ( 23.9 per cent) of the deaf-mutes included in the tabulation stated that they employed speech as a means of communication. The actual proportion of the deaf-mute population who had learned to speak was probably even higher, since many deaf-mutes were not reported as deaf and dumb by the population enumerators for the reason that because of their ability to speak they were not regarded as coming within the scope of the enumeration. That this must have been an important factor is indicated by the circumstance that among the totally deaf returned at the census of 1900 who lost their hearing before reaching the age of 10 the proportion reporting the use of speech as a means of communication was even higher ( 26.3 per cent) than that shown for 1910 in Table 90, although the latter would normally have been expected to be the larger, by reason of the deaths during the decade among the older deaf-
mutes who had never been taught to speak and of the general increase in the teaching of speech to the deaf which has taken place in recent years.

It will be observed from Table 90 that 165 deafmutes reported speech as the only means of communcation employed. These probably were in a large proportion of instances persons who had lost their hearing in the earlier years of the second quinquennium of life, after they had learned to speak fairly well, and who had never lost the faculty thus acquired, although in some cases they doubtless were persons who had been taught in exclusively oral schools. The 98 persons tabulated as reporting no means of communication comprise persons suffering from physical or mental infirmities which prevented them from effective communication with others.

In examining the returns as to method of communication employed, it became evident that many persons had reported themselves as using the sign language who did not, properly speaking, employ the formal means of communication among the deaf known as "the sign language," but communicated with others by means of motions, gestures, or signs devised by themselves which did not necessarily form a part of the stereotyped sign-language code. It was decided, therefore, to tabulate as using the "sign language" only persons who had been to schools for the deaf, or who otherwise, as by the use of finger spelling or through having relatives who had attended schools for the deaf, showed that they had had opportunity to become acquainted with this method of communication. Although under the operation of this rule some persons actually using the sign language were doubtless excluded, so that the figures shown under this head in Table 90 and other tables relating to means of communication are to a certain extent understatements, it is believed that the resultant error is much less than would have been the case if every person reporting the use of the sign language had been so tabulated.
In addition to the inquiry as to means of communication, the special schedule contained inquiries asking whether the deaf person was able to speak well or imperfectly, or was able to speak at all. In a certain number of cases persons failing to specify speech among the methods of communication employed stated in answer to these inquiries that they were able to speak. It was believed that in most cases where speech actually constituted an effective means of communication the inquiry in regard to its use for this purpose would be specifically answered in the affirmative; and in fact, in some instances where a person reported that he was able to speak but did not specify speech among the means of communication employed, the schedule stated definitely that he was able to speak only a few more or less isolated words or phrases and showed plainly that he did not have sufficient command of speech to employ it as an effective means of communication with others. For these reasons it was
decided in tabulating the statistics as to means of communication to disregard the answers to the inquiries as to ability to speak, except in cases where the inquiry relating to means of communication was left entirely unanswered, for which, as a matter of interest, a segregation was made between persons who answered the inquiries in regard to ability to speak in the affirmative and those who answered them in the negative. The total number failing to answer the former inquiry but stating that they could speak was, however, comparatively small, amounting to only 125 , or less than 1 per cent of the total included in the tabulation; these are not included among the 4,057 persons shown in Table 90 as reporting the use of speech as a means of communication. It must be borne in mind, therefore, that. the tables in this report do not show the total number of deaf-mutes returning schedules who reported that they could speak, but only the number who stated specifically that they employed speech as an ordinary means of communication with others.

When the statistics for the two sexes are compared, the interesting fact is disclosed that the proportion reporting the use of speech as a means of communication was considerably higher for females than for males, the percentage being 26.3 , or more than one-fourth, for the former and 21.8, or only about one-fifth, for the latter. While the returns as to the method of communication were not tabulated by sex at the census of 1900 , such a tabulation was made of the replies to the inquiry as to ability to speak, with somewhat similar results, although in this instance allowance must be made for the fact that the investigation covered all the deaf, regardless of ability to speak or age when hearing was lost, or whether deafness was total or partial. According to this tabulation the proportion of females was highest among the deaf who were able to speak well, next highest among those who were able to speak imperfectly, and lowest among those who were unable to speak at all, the percentages being 49, 45.7, and 44.6, respectively. On the whole, the statistics would seem to bear out the opinion which has frequently been expressed by teachers of the deaf that females acquire speech by instruction more readily than males. The proportion reporting the use of miscellaneous means of communication in 1910 was also higher for females than for males. The proportions reporting the use of writing, finger spelling, and the sign language were, however, somewhat higher for males; the difference is greatest for writing, possibly because it is used mainly for communication with normal persons and in the case of females is supplanted by speech to a greater extent relatively than in the case of males.

General Table 25 (p. 160) classifies the deaf and dumb population 10 years of age or over in 1910 for whom special schedules were returned in each division and state according to the means of communication employed. Table 91 shows the distribution, both numerically and on a percentage basis, for each division.
The divisions differ widely in respect to the relative importance of the different methods of communication. In each division the largest group was that comprising persons reporting that they employed writing, finger spelling, and the sign language in communicating with others. The proportion which this group formed of the total, however, varied from 59 per cent, or about three-fifths, in the Pacific division to 40.5 per cent, or two-fifths, in New England, being over one-half in the West North Central, West South Central, and East North Central divisions, as well as in the Pacific division. The group comprising persons who reported the use of all the important methods of communication (speech, writing, finger spelling, and the sign language), which ranked second numerically for the United States as a whole, held this position for only six of the nine divisions, being outranked in the three southern divisions by that comprising persons employing only miscellaneous methods. The proportion which the group reporting the use of all four of the chief methods of communication formed of the total ranged from 23.4 per cent, or nearly one-fourth, in the Middle Atlantic division to 11.4 per cent, or less than one-eighth, in the two South Central divisions; the largest proportion shown for any division other than the Middle Atlantic was that for the Mountain division (19.6 per cent), although that for the New England division was.nearly as great ( 19.2 per cent). Persons employing miscellaneous methods of communication only represented more than 10 per cent of the total in the three southern divisions and the Mountain division. The proportion was highest ( 17.8 per cent, or more than one-sixth) in the East South Central division, but was nearly as great ( 16.9 per cent and 15.8 per cent, respectively) in the South Atlantic and West South Central divisions.
The number reporting the use of speech was largest relatively in the New England and Middle Atlantic divisions, representing more than one-third (35.6 and 34.7 per cent, respectively) of the total in each case. The proportion was one-fourth ( 25 per cent). in the Pacific division. The percentage was lowest (14.8, or about one-seventh) in the West South Central division, but was nearly as low (15.3) in the East South Central; in the South Atlantic and West North Central divisions also the proportion was less than one-fifth.

Table 91
deaf and dumb population 10 years of age or over for whom special sched dles were RETURNED: 1910.


1 Includes the small number whose age was not reported.
${ }^{2}$ Less than one-tenth of 1 per cent.

In contrast to the high proportion reporting the use of speech in the New England division, the proportions reporting the use of finger spelling and the sign language were below the average in this division, the percentage using the former method being lower than for any other division except the South Atlantic, and that for the latter method lower than for any other division except the South Atlantic and East South Central. The percentage reporting the use of writing was also lower in this division than in any other except the three southern divisions and the Mountain division. Moreover, in the Middle Atlantic division, where the proportion reporting the use of speech was also high, the proportion reporting the use of the sign language was lower than in any other division except the South Atlantic, East South Central, and New England. The percentages reporting the use of writing, finger spelling, and the sign language were higher in the Pacific division than in any other, being in excess of four-fifths (85, 82.2, and 85.2, respectively) in each case. The only other divisions where any of these methods was reported by as many as four-fifths of the total were the Middle Atlantic, in which 81.4 per cent of the total employed writing, and the West North Central, in which 81 per cent used the sign language. The use of writing was reported more frequently than that of any other method in the New England, Middle Atlantic, and East North Central divisions, the use of finger spelling in the three southern divisions, and the use of the sign language in the West North Central, Mountain, and Pacific divisions.

These differences between the divisions in regard to the means of communication employed reflect very largely differences in regard to the prevailing methods taught in the schools for the deaf in these divisions. The high percentages reporting the use of speech in the New England and Middle Atlantic divisions are probably due in large measure to the fact that the teaching of speech to the deaf has been carried on for a longer period of time in these divisions than in the others, and also is much more general. In this connection it will be observed that the proportion reporting speech as the sole means of communication was much higher in the New England division than in any other ( 3.2 per cent), this being the only division except the South Atlantic in which the proportion exceeded 1 per cent. The generally low percentages reporting all the more usual means of communication and the high percentages reporting miscellaneous methods in the three southern divisions are explained to a considerable extent by the large Negro population of this section of the country, as deaf-mute Negro children appear to be sent to school less frequently than are deaf-mute children among the whites; in addition, one of the states in the West South Central division makes no provision for the education of deafmute Negroes. Furthermore, it is possible that white deaf-mutes do not attend school to the same extent in
the South as in other sections of the country. The relatively small proportions reporting the use of finger spelling and the sign language in the New England division are due to the fact that certain institutions in this division employ the oral method almost exclusively and give little or no instruction in finger spelling or the sign language.
Table 92 presents statistics as to the means of communication employed for the different race and nativity classes among the deaf and dumb 10 years of age or over in 1910 for whom special schedules were returned.
In the two white classes the most important group numerically with regard to means of communication was that made up of persons employing writing, finger spelling, and the sign language, which comprised more than one-half ( 51.7 percent) of the totalin the case of the native whites, and about two-fifths ( 39 per cent) in the case of the foreign-born whites. Among the Negroes, however, by far the largest group was that made up of persons who employed only miscellaneous methods of communication, such as natural signs, gestures, etc., who constituted about three-eighths ( 37.8 per cent) of the total number, this being due of course to the relatively small proportion of Negro deaf-mutes who had ever been to school. Persons using all the three methods of communication first mentioned ranked second in importance among the Negroes, representing 24.5 per cent, or about one-fourth, of the total. In the two white classes persons using speech, writing, finger spelling, and the sign language together ranked second in numerical importance, forming approximately onesixth of the total in each case (17.9 and 15.8 per cent, respectively); but among the foreign-born whites the proportion employing miscellaneous methods only was nearly as great (14.6 per cent, or about one-seventh). Only 5.4 per cent of the Negroes were reported as using all the four principal methods of communication. Of the 60 persons included under the head of "All other" in the table, nearly all of whom were Indians, 36, or three-fifths, used only natural signs, gestures, etc., in communicating with others.
The proportion using speech as a means of communication was about the same for the two white classes, being 24.5 per cent for the native whites and 26.6 per cent for the foreign-born whites, or about one-fourth in each case. The fact that the percentage was slightly higher for the latter class is probably due to the circumstance that certain institutions for the deaf in New York City which contained among their pupils a large number of foreign-born children and which gave instruction mainly by the oral method appear to have made a special effort to secure a return of the schedules for their pupils. The proportions reported as using writing, finger spelling, and the sign language were, however, lower for the foreign-born than for the native whites and the proportion using miscellaneous methods higher; in fact, only 8.5 per cent of the native whites
were reported as using natural signs and similar means of communication. Only 11.1 per cent of the Negroes were reported as using speech, and only about two-fifths were reported as using any of the three other conven-
tional methods of communication. Of the individual methods, writing was the one most frequently reported by the white classes; but among the Negroes finger spelling was reported more frequently than any other.

## Table 92

means of communication.


Total.
Reporting as to means of communication.
Using speech as a means of communication.
Reporting means of communication as
Speech, writing, finger spelling, and sign language
Speech, writing, and finger spelling.
Speech, writing, and sign language...........
Speech, finger spelling, and sign language
Speech, finger spelling, and sign languag
Epeech and finger speling.
gpeech and miscellaneous methods.
speech only.
Not using speech as a means of communication
Reporting means of communication as-
Writing, finger spelling and sign language
Writing and finger spelling
Writing and sign language.........
Finger spelling and sign language
Finger spelling and sign languag
Writing only..........
Sign language only a.
Reporting no means of communication.
Not reporting as to means of communication.
Reporting themselves as able to speak.
Reporting themselves as unable to speak.

Reporting use of -
Speech..
Finger speling.
Bign language
Miscellaneous methods.
deaf and dumb porulation 10 Years of age or over for whom special schedULES WERE RETURNED: 1910. ${ }^{1}$

| All classes. | White. |  |  | Negro. | All other. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total. | Native. | Foreign-born. |  |  |
| NUMBER. |  |  |  |  |  |
| 17,000 | 15,957. | 14,212 | 1,745 | 983 | 60 |
| 16,367 | 15,411 | 13,766 | 1,645 | 903 | 53 |
| 4,057 | 3,943 | 3,478 | 465 | 109 | 5 |
| 2,880 | 2,826 | 2,550 $\mathbf{1 3 1}$ | 276 17 | 53 6 | 1 |
| 154 100 | 148 98 | 131 76 | $\underline{22}$ | 6 2 |  |
| 100 84 | 88 | 76 75 | 22 5 | 2 | -................ |
| 463 | 456 | 366 | 90 | 6 | 1 |
| 31 | 29 | 25 | 4 | 2 |  |
| 53 | 48 | 36 | 12 | 5 |  |
| 127 | 111 | 97 | 14 | 15 | 1 |
| 165 | 147 | 122 | 25 | 16 | 2 |
| 12,310 | 11,468 | 10,288 | 1,180 | 794 | 48 |
| 8,273 | 8,024 | 7,344 | 680 | 241 | 8 |
| 521 | 461 | 425 | 36 | 60 |  |
| 291 | 276 | 239 | 37 | 15 | - |
| 625 | 584 | 534 | 50 | 39 | 2 |
| 218 | 200 | 167 | 33 | 17 | 1 |
| 142 | 132 | 109 | 23 | 10 |  |
| 375 | 345 | 292 | 53 | 29 | 1 |
| $\begin{array}{r}1,767 \\ \hline 98\end{array}$ | 1,359 87 | 1,105 73 | 254 14 | 372 11 | 36 |
| 633 | 546 | 446 | 100 | 80 | 7 |
| 125 443 | 113 382 51 | $\begin{array}{r}97 \\ 305 \\ \hline\end{array}$ | 16 77 | 10 56 14 | 2 |
| 4,057 | 3,943 | 3,478 | 465 | 109 | 5 |
| 12,900 | 12,489 | 11,298 | 1,191 | 400 | 11 |
| 12,710 | 12,284 | 11,193 | 1,091 | 415 | 11 |
| 12,681 | 12,281 | 11,146 | 1,135 | 388 387 | 12 |
| 1,894 | 1,470 | 1,202 |  | 387 | 37 |
| PER CENT OF total. |  |  |  |  |  |
| 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | (2) |
| 96.3 | 96.6 | 96.9 | 94.3 | -91.9 | (2) |
| 23.9 | 24.7 | 24.5 | 26.6 | 11.1 | ${ }^{(2)}$ |
| 16.9 | 17.7 | 17.9 | 15.8 | 5.4 | ${ }^{(2)}$ |
| 0.9 | 0.9 | 0.9 | 1.0 | 0.6 |  |
| 0.6 | 0.6 | 0.5 | 1.3 | 0.2 |  |
| 0.5 | 0.5 | 0.5 | 0.3 | 0.4 |  |
| 2.7 | 2.9 | 2.6 | 5.2 | 0.6 | ${ }^{2}$ ) |
| 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |  |
| 0.3 | 0.3 | 0.3 | 0.7 | 0.5 |  |
| 0.7 | 0.7 | 0.7 | 0.8 | 1.5 | $(2)$ |
| 1.0 | 0.9 | 0.9 | 1.4 | 1.6 | (2) |
| 72.4 | 71.9 | 72.4 | 67.6 | 80.8 | (2) |
| 48.7 | 50.3 | 51.7 | 39.0 | 24.5 | (2) |
| 3.1 | 2.9 | 3.0 | 2.1 | 6.1 |  |
| 1.7 | 1.7 | 1.7 | 2.1 | 1.5 |  |
| 3.7 | 3.7 | 3.8 | 2.9 | 4.0 | ${ }_{(2)}^{(2)}$ |
| 1.3 | 1.3 | 1.2 | 1.9 | 1.7 | (2) |
| 0.8 | 0.8 | 0.8 | 1.3 | 1.0 |  |
| 2.2 | 2.2 | 2.1 | 3.0 | 3.0 | (2) |
| 10.4 | 8.5 | 7.8 | 14.6 | 37.8 | (3) |
| 0.6 | 0.5 | 0.5 | 0.8 | 1.1 | .............. |
| 3.7 | 3.4 | 3.1 | 5.7 | 8.1 | (2) |
| 0.7 | 0.7 | 0.7 | 0.9 | 1. 0 | (2) |
| 2.6 | 2.4 | 2.1 | 4.4 | 5.7 | (2) |
| 0.4 | 0.3 | 0.3 | 0.4 | 1.4 | $\cdots$ |
| 23.9 | 24.7 | 24.5 | 26.6 | 11.1 | ${ }^{2}$ |
| 75.9 | 78.3 | 79.5 | 68.3 | 40.7 | ${ }^{2}$ |
| 74.8 | 77.0 | 78.8 | 62.5 | 42.2 | (2) |
| 74.6 | 77.0 | 78.4 | 65.0 | 39.5 | (2) |
| 11.1 | 9.2 | 8.5 | 15.4 | 39.4 | (a) |

Table 93 shows the per cent distribution according to means of communication of the deaf and dumb 10 years of age or over in 1910 for whom special schedules were returned, classified according to age when hearing was lost. The absolute numbers upon which this table is based are given in General Table 27 (p. 163).
The various groups with respect to age when hearing was lost differ more or less from each other in regard to the methods of communication employed. For both the congenitally and the adventitiously deaf, persons using writing, finger spelling, and the sign language outnumbered any other group with respect to means of communication, such persons constituting 48 per cent of the former class and 49.1 per cent of the latter, or nearly one-half in each case. Among those whose deafness was acquired, persons using all of the four leading methods of communication ranked second in importance, representing practically one-fifth (19.4 per cent) of the total; among the congenitally deaf, however, those using only miscellaneous methods, such
as natural signs, held second place, with 14.2 per cent, or one-seventh, of the total, although the proportion using all of the four leading methods was nearly as great ( 12.9 per cent, or one-eighth). It was of course to be expected that speech would be used by a larger proportion of those whose deafness was acquired than of those who were born deaf, as many of the former had already learned to speak to some extent before their hearing was lost; in addition, it is probable that a larger number relatively of the adventitiously than of the congenitally deaf retain vestiges of hearing which may be of assistance in acquiring the faculty of speech. The higher proportion using natural signs, etc., for the congenitally deaf of course reflects the smaller percentage of school attendance reported for this class; and even without this factor a similar result would probably be shown, by reason of the greater difficulty in teaching persons who have never been able to employ any of the methods of communication in general use among normal persons.


1 Includes the small number whose age at enumeration was not reported.
a Includes those reported as having lost their hearing in infancy but without statement as to the exact age.

The adventitiously deaf who lost their hearing at the different ages also differ to some extent in regard to means of communication. Both among those who lost their hearing when less than 5 years of age and
among those who lost it between the ages of 5 and 9 , persons using writing, finger spelling, and the sign language ranked first in numerical importance and those using all four of the leading methods of communica-
tion second. The relative importance of the two groups differed widely, however, the first-mentioned group with respect to methods of communication employed representing considerably more than one-half ( 53.4 per cent) of those who lost their hearing during the first five years of life, as compared with a corresponding percentage of 18.5 , or less than two-fifths, for the second group, while among those who list their hearing during the second quinquennium the difference had largely disappeared, the former group representing 34.4 per cent, or slightly more than one-third, of the total and the second group 28.1 per cent, or considerably more than one-fourth. Of those who lost their hearing after the completion of the first decade of life, two-fifths ( 40 per cent) used miscellaneous methods only, this being due in part to the fact that they comprised persons who lost their hearing too late in life to attend a school for the deaf and who subsequently lost the faculty of speech which they had acquired before loss of hearing and also a few persons whose loss of speech was due to mental or physical infirmity not connected with their deafness.

Of the congenitally deaf only 18.5 per cent (less than one-fifth) reported the use of speech as a means of communication, as compared with 27.2 per cent, or more than one-fourth, of the adventitiously deaf. Among those whose deafness was acquired when they were less than 5 years of age, the proportion reporting the use of speech was about one-fourth ( 25.2 per cent); but of those who were from 5 to 9 years of age when they became deaf, two-fifths ( 40.6 per cent) reported the use of speech. By reference to General Table 27 it will be seen that 9 persons who lost theirhearing after reaching the age of 10 reported the use of speech as a means of communication. Inasmuch as persons who became deaf after reaching that age were included in the tabulation only when it appeared from the schedule that they had lost the power of speech as an effective means of communication with others, these were probably persons who used an occasional isolated word or phrase and on the strength of this reported themselves as using speech as a means of communication.

Finger spelling was reported with greater frequency than any other method of communication by the congenitally deaf. Among the adventitiously deaf as a group, however, as well as among those who lost their hearing during each of the first two quinquennia of life, writing was the means most frequently reported, while among those who lost their hearing after reaching the age of 10 the number using miscellaneous methods exceeded the number using any of the ordinary means, although the number using writing was nearly as great. The proportions using the three chief silent methods of communication were somewhat larger among the adventitiously deaf than among the congenitally deaf, and among the former decreased with each succeeding group with respect to age when hearing was lost. The decrease was least pronounced in
the case of writing, which was used by four-fifths ( 81.9 per cent) of those who lost their hearing under the age of 5 and two-fifths ( 40.7 per cent) of those who lost it after the age of 10 , and most pronounced for the sign language, which was used by practically the same proportion of those who lost their hearing during the first quinquennium ( 80.6 per cent) as reported the use of writing, but by less than one-third ( 30.7 per cent) of those who lost it after reaching the age of 10 ; the proportion using finger spelling decreased from 80.5 per cent among those who lost their hearing under the age of 5 , or practically the same as the proportions using writing and the sign language, to 36.4 per cent among those who were 10 years of age or over when they became deaf. These differences of course result from the fact that persons who lose their hearing after the completion of the first decade of life have in the great majority of instances been to school and learned writing, and the further fact that it is probably easier for such persons to learn finger spelling, which is merely a special method of expressing themselves in a language which they have already learned, than the more or less arbitrary code of the sign language, which involves almost as great difficulties as the acquisition of an entirely new language.

Ability to read lips.-Closely related to the subject of methods employed in communicating with others is that of ability to read lips, since the deaf who are taught to rely mainly on speech, supplemented by writing, as a means of communication with others are as a rule taught to depend chiefly on lip reading as a means of learning what other persons wish to tell them. With a view to obtaining information as to the extent to which lip reading was practiced by the deaf and dumb, the following inquiry was inserted on the special schedule at the census of 1910:
29. Can he understand what people say by watching the motion of their lips?

The statistics obtained by means of this inquiry are summarized in Table 94 for the total and the male and female deaf and dumb 10 years of age or over in 1910 for whom special schedules were returned.


1 Includes the small number whose age was not reported.
${ }_{2}$ Based upon the population reporting as to ability to read lips.
Of the 17,000 deaf-mutes 10 years of age or over in 1910 for whom special schedules were returned, 5,457, representing about one-third (32.9 per cent)
of the totai number answering the inquiry on this subject, stated that they were able to understand what people said by watching the motion of their lips. It is doubtful, however, whether the number who habitually received communications from others through the medium of lip reading was so great, as instances were found where persons reported themselves as able to read the lips who gave no evidence of ever having received any special instruction in schools for the deaf or elsewhere to assist them in overcoming the handicap of their defect. There is, of course, no question that even persons without special training may by watching the lips of others gain a certain idea of what they are saying, but it is questionable whether sufficient facility in lip reading to make it a permanently effective substitute for hearing is acquired in any considerable proportion of cases without such instruction. Another circumstance which makes it seem possible that the number reporting themselves as able to read the lips is somewhat too large is the fact that in a number of cases where the person returning the schedule claimed to be able to read the lips, the answer to the inquiry was of such a nature as to make it apparent that the ability to read the lips was so slight as to be of little real value in taking the place of hearing. Although all such persons were tabulated as unable to read the lips, it is probable that other persons possessing no greater facility in lip reading answered the inquiry on this point with an unqualified affirmative and were accordingly babulated as able to read the lips. On the other hand, there is the circumstance that a considerable proportion of deaf-mutes who were not reported as deaf and dumb by the population enumerators because they were able to speak were also in all probability able to read the lips, although it is somewhat doubtful whether such persons would be sufficiently numerous to overcome the effect of the number erroneously answering the inquiry regarding lip reading in the affirmative. In addition to the considerations already mentioned as tending to support the supposition that the percentage stating that they were able to read the lips is above the true figure, it seems probable that those who failed to answer the inquiry on this subject did so in the great majority of instances because they did not understand it; this, of course, would imply that they actually could not read the lips, as if they did so they would most certainly have understood the inquiry. ${ }^{1}$

[^24]The proportion stating that they were able to read the lips was considerably higher for females than for males, 37 per cent, or more than one-third, of the females answering the inquiry reporting themselves as able to read the lips, as compared with 29.4 per cent, or considerably less than one-third, of the males. This higher percentage for females is, of course, a natural tonsequence of the larger percentage using speech as a means of communication, since lip reading, as already stated, is used chiefly as an adjunct to speech by those employing the latter as their principal means of communication.

General Table 25 (p. 160) shows for each geographic division and state the number of deaf-mutes 10 years of age or over in 1910 for whom special schedules were returned who reported that they could read the lips. Table 95 summarizes the statistics in regard to the use of lip reading for the different divisions.

| Table 95 <br> drvision. | deaf and dumb portlation 10 years of age or over for whom speclal schedules were RETURNED: 1910. ${ }^{1}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total. | Able to read lips. |  | Unable to read lips. | Not re porting as to ability to readlips. |
|  |  | Number. | Per cent of total. 2 |  |  |
| United States. | 17,000 | 5,457 | 32.9 | 11,154 | 389 |
| New England.:Middle Atlantic | $\begin{aligned} & 1,559 \\ & 3,537 \\ & 3,981 \end{aligned}$ | 1641,432 | 45.141.6 | 5642,008 | $\begin{array}{r}31 \\ 97 \\ \hline 109\end{array}$ |
|  |  |  |  |  |  |
| East North Central. |  | 1,249 | 32.3 <br> 28.5 | 2,6231,782 | 149$-\quad 39$ |
| West North Central. | $\begin{aligned} & 3,981 \\ & 2,538 \end{aligned}$ |  |  |  |  |
| East South Central.. | 2,012 1,626 | 566 | 28.7 | 1,407 |  |
| West South Central. | 1,428 | 363 | 25.7 | 1,047 | 186 |
| Mountain. | 312 | 105 | 34.3 | 201 |  |
| Pacific. | 507 | 112 | 22.5 | 386 | 9 |

${ }_{2}^{1}$ Includes the small number whose age was not reported.
${ }^{2}$ Based upon the population reporting as to ability to read lips.
The two divisions in which speech was most extensively used as a means of communication are also the ones in which the use of lip reading was most general, considerably more than two-fifths ( 45.1 per cent) of the deaf-mutes 10 years of age or over in 1910 for whom special schedules were returned and who answered the inquiry on this subject in the New England division, and 41.6 per cent of those in the Middle Atlantic division, reporting that they could read the lips. The proportion was in excess of one-third (34.3 per cent) for the Mountain division also; on the other hand, it was less than one-fourth ( 22.5 per cent) in the Pacific division, and in the West South Central division about one-fourth. In general, the order of the different divisions in respect to the percentage able to read the lips corresponds to their order in respect to the percentage using speech as a means of communication, the only important exception being the Pacific division, which ranks third in regard to the percentage using speech as a means of communication, but last in the percentage practicing lip reading.
General Table 26 (p. 162) classifies the total and the male and female deaf-mute population 10 years
of age or over in each race and nativity class according to their ability to read the lips. Table 96 shows the number and proportion reporting that they could read the lips for each class without distinction of sex.

| Table 96 <br> BACE AND NATIVITY. | deaf and dumb population 10 Years of age or OVER FOR WHOM SPECLAL SCHEDULES WERE RETURNED: 1910. ${ }^{1}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total. | Able to read lips. |  | Unable to read lips. | Notre porting as to ability to read lips. |
|  |  | Number. | Per cent of total. ${ }^{2}$ |  |  |
| All classes........... | 17,000 | 5,457 | 32.9 | 11,154 | 389 |
|  | 15,957 | 5,163 | 33.1 | 10, 423 | 371 |
| Native $\qquad$ Foreign-born. | $\begin{array}{r} 14,212 \\ 1,745 \\ 1,043 \end{array}$ | $\begin{array}{r} 4,535 \\ 628 \\ 294 \end{array}$ | $\begin{aligned} & 32,7 \\ & 36.9 \\ & 28.7 \end{aligned}$ | $\begin{array}{r} 9,351 \\ 1,072 \\ 731 \end{array}$ | 3264518 |
| Colored. |  |  |  |  |  |
| Negro. $\qquad$ Other colored | 983 60 | 280 14 | ${ }_{(3)} 29.0$ | 686 45 | 17 1 |

${ }^{1}$ Includes the small number whose age was not reported.
${ }_{3}^{2}$ Based upon the population reporting as to ability to read lips.
3 Per cent not shown where base is less than 100.
The number reporting themselves as able to read the lips was larger relatively among the foreign-born whites than in any other race and nativity class, 36.9 per cent, or considerably more than one-third, of the persons in this nativity class who answered the inquiry as to lip reading stating that they were able to do so, as compared with corresponding percentages of 32.7, or less than one-third, for the native whites, and 29, or about two-sevenths, for the Negroes. It is doubtful, however, whether lip reading is actually practiced to a greater extent by foreign-born whites than by native whites, as the high percentage for the former class is probably due in considerable measure to the fact that certain large institutions for the deaf in New York City, which employ mainly the oral method, involving instruction in lip reading, and which comprise a considerable number of foreign-born white pupils, appear to have made a special effort to obtain the return of the schedules sent to their pupils. In addition, it must be borne in mind that persons reported as deaf and dumb by the population enumerators but failing to return the special schedule, who represented in large measure the more illiterate and uneducated deafmutes, probably formed a higher proportion of the foreign-born than of the native whites, while the deafmutes omitted by the population enumerators as not deaf and dumb for the reason that they had acquired the faculty of speech were probably, in the majority of instances, native whites, so that complete returns for all deaf-mutes would have resulted in a greater reduction relatively in the percentage reporting themselves as able to read the lips in the case of the foreignborn than of the native whites. The circumstances just mentioned also make it seem probable that the actual difference between the Negroes and the two white classes in regard to the proportion able to read the lips was likewise much greater than is shown in the
table; moreover, instances where the inquiry on this subject was erroneously answered in the affirmative are in all probability more numerous relatively among the Negroes than among the whites.
Table 97 classifies the number who lost their hearing at the different ages among the deaf and dumb 10 years of age or over in 1910 for whom special schedules were returned according to their ability to read the lips.

| Table 97 <br> age when hearing was lost. LOST. | deaf and dumb poptlation 10 years of age or over for whom speclal schedules were reTURNED: 1910. ${ }^{1}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total. | Able to read lips. |  | Unable to read lips. | Not re porting as to ability lips. |
|  |  | Number. | Per cent of total. ${ }^{2}$ |  |  |
| Total. | 17,000 | 5,457 | 32.9 | 11,154 | 389 |
| Deainess congenital.. Deainess acquired ${ }^{3}$.. | 6,466 10,534 | 1,796 3,661 | 28.5 35.5 | $\begin{aligned} & 4,498 \\ & 6,656 \end{aligned}$ | 172 217 |
| At age of- | 8,305 | 2,699 | 33.1 | 5,453 | 153 |
| 5 to 9 years.... | 1,543 |  | 49.8 | 764 | 20 |
| 10 years or ov | , 140 | 34 | 25.0 | 102 | 4 |
| At age not reported........ | 546 | 169 | 33.4 | 337 | 40 |

[^25]The differences as regards ability to read the lips between the various groups with respect to age when hearing was lost are of the same nature as the differences in the extent to which speech is used as a means of communication. Of those who reported that their deafness was acquired and answered the inquiry as to lip reading, more than one-third (35.5 per cent) stated that they were able to read the lips, the corresponding percentage for the congenitally deaf being 28.5, or somewhat more than one-fourth. Practically one-half ( 49.8 per cent) of the adventitiously deaf who lost their hearing between the ages of 5 and 9 were able to read the lips, as compared with about one-third (33.1 per cent) of those who lost it during the first quinquennium and one-fourth ( 25 per cent) of those who lost it after the completion of the first decade.
The close relationship between the use of speech as a means'of communication and the use of lip reading is brought out more clearly by Table 98, on the next page, whichshows for the deaf-mutes 10 years of age or overin 1910 for whom schedules were returned, classified according to means of communication employed, the number and percentage who were able to read the lips.

The fact that lip reading is used mainly as an adjunct of speech is brought out clearly by the circumstance that of those who reported the use of speech and answered the inquiry as to lip reading threefourths (75.8 per cent) reported that they could read the lips, while for those using the other leading methods of communication the proportion was only about one-third ( 34.6 per cent in the case of those using writing, 32.1 per cent in the case of those
using finger spelling, and 31.9 per cent in the case of those using the sign language). Moreover, among those using speech the proportion reading the lips was higher for those who used speech either alone or in combination with writing only than for those using it in combination with finger spelling or the sign language, the two methods of communication peculiar to the deaf, practically nine-tenths ( 89.5 per cent) of those reporting that they used speech and writing only as means of communication and nearly seveneighths (86.5 per cent) of those using speech only stating that they could read the lips, while the highest proportion for any of the other groups was 79.1 per cent, or nearly four-fifths, for those using speech, writing, and finger spelling.

| Table 98 <br> MEANS OF COMMUNICATION. | deaf and dumb population 10 years OF AGE OR OVER FOR WHOM SPECLAL schedules were returned: 1910. ${ }^{1}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total. | Able to read lips. |  | Unable lips. | Notre-porting as ability lips. |
|  |  | Num- | $\begin{gathered} \text { Per } \\ \text { cent of } \\ \text { total. } \end{gathered}$ |  |  |
| Total. | 17,000 | 5,457 | 32.9 | 11,154 | 389 |
| Reporting as to means of communication. . <br> Using speech as a means of communication. <br> ..................................... | 16,367 | 5,301 | 33.0 | 10,770 | 296 |
|  | 4,057 | 3,044 | 75.8 | 974 | 39 |
| Reporting means of communication |  |  |  |  |  |
| Speech, writing, finger spelling, and sign language | 2,880154100 | 2,11312169 | 74.179.1 | 7383231 | 291 |
| Speech, writing, and finger speling.. |  |  |  |  |  |
| Speech, writing, and sign language. Speech, finger spelling, and sign lan- |  |  | 69.0 |  |  |
| guage........... | $\begin{array}{r}84 \\ 463 \\ 41 \\ \hline\end{array}$ | 60 409 | (3) 89 89 5 | 24 |  |
| Speech and finger speliing. |  | 409 21 |  |  | 6 |
| Speech and sign languate. | 53127127165 | 3773141 | (3)57.558.5 | 165422 | . |
| Speech and miscellaneous methods.. |  |  |  |  |  |
| speech only.. |  |  | 86.5 |  | 2 |
| Not using speech as a means of communication. | 12,310 | 2,257 | 18.7 | 9,796 | 257 |
| Reporting means of communication |  |  |  |  |  |
| Writing, finger spelling, and sign language | 8,273 | 1,396 | 17.2 | 6,708 | 169 |
| Writing and finger speling. |  |  | 22.9 | 394 | 10 |
| Writing and sign language. | 291 | 117 | 28.2 | 206 |  |
| Finger spelling and sign language | 625 <br> 218 | 13583 | 22.1 | 476 | 146 |
| Writing only-..... |  |  | 3.232.623.6 | 91279 |  |
| Sign language only. | $\begin{array}{r}142 \\ 375 \\ \hline 767\end{array}$ | 44 86 86 |  |  | $\begin{array}{r}7 \\ 10 \\ \hline\end{array}$ |
| Miscellareous methods. | 1,76798 | 3123 | ${ }_{(0)}^{18.0}$ | $\begin{array}{r}1,419 \\ \hline 94\end{array}$ | 1 |
| Reporting no means of communication. |  |  |  |  |  |
| Not reporting as to means of communica tion. | 633 | 156 | 28.9 | 384 | 93 |
| Reporting themselves as able to speak | $\begin{aligned} & 125 \\ & 443 \\ & 65 \end{aligned}$ | 746319 | $\begin{aligned} & 67.9 \\ & 16.4 \\ & { }_{(8)} \end{aligned}$ | 3532128 | 165918 |
| Reporting themselves as unable to speak. |  |  |  |  |  |
| Not reporting as to ability to speak...... |  |  |  |  |  |
| Reporting use ofspeech. | 4,057 | 3,044 | 75.8 | 974 | $\begin{array}{r}39 \\ 225 \\ \hline\end{array}$ |
|  |  |  |  |  |  |
| Finger speliin | 12,710 | $\begin{gathered} 4,389 \\ \mathbf{4}, \mathbf{0}, \mathbf{8} \\ \mathbf{3}, 977 \end{gathered}$ | 34.6 32.1 | 8,4728,4788 | 23122636 |
| Sign language. | 12,681 |  | 31.9 |  |  |
| Miscellaneous methods | 1,894 | 3, 385 | 30.7 | 1,473 | 36 |

${ }^{1}$ Includes the small number whose age was not reported. ${ }_{2}^{2}$ Based upon the population reporting as to ability to read lips.
a Per cant not shown where base is less than 100.
Inasmuch as those reporting the use of miscellaneous methods of communication comprise for the most part persons who had never received any special instruction after the loss of their hearing, the fact that one-fifth ( 20.7 per cent) of them also claimed to be able to read the lips gives further support to what has already been said as to the probability that the number reporting themselves as able to read the lips ex-
ceeded the number actually possessing a sufficient facility in lip reading to render it of substantial assistance in communicating with others. It is, of course, possible that a certain number had actually mastered the art of lip reading so that they were able to a considerable extent to make it a substitute for hearing, but most of them probably possessed little, if any, more facility in reading the lips than is possessed by normal persons, to whom the movements of the lips are frequently of assistance in understanding the speech of others. The fact that among the deaf and dumb who reported as to means of communication employed but did not specify speech among the methods used the proportion stating that they could read the lips was highest ( 39.2 per cent, or nearly two-fifths) for those using writing only also tends to confirm this view. The circumstance that among the groups reporting as to means of communication the percentage able to read the lips was lowest ( 17.2 per cent, or slightly more than one-sixth) in the case of those reporting that they used all of the leading means of communication except speech, who presumably were the best educated among those who did not employ speech, brings out still further the close connection between the use of speech and lip reading.

## OCCUPATIONS AND ECONOMIC STATUS.

One of the most interesting and important subjects which can be considered in any statistical study of the deaf-mute population is that of their occupations, by reason of the fact that on account of their defect they are restricted to a certain extent in their choice of occupations and also, at least in a considerable proportion of cases, affected as to their earning capacity. In order to bring out the relative extent to which the deaf and dumb returning schedules were carrying on gainful occupations, Table 99 is presented, which shows the number and percentage gainfully employed among the male and the female deaf-mutes 10 years of age or over in each race and nativity class in 1910 for whom schedules were returned.

| Table 99 <br> RACE AND NATIVITY. | deaf and dumb population 10 years of AGE OR OVER FOR WHOM SPECIAL SCHEDULES WERE RETURNED: $1010 .{ }^{2}$ |  |  |  |  |  | PER CENT gainfully EMPLOYED in general population 10 years of AGE OR OVER ${ }^{1}$ OF SAME RACE AND NATIVITY: 1910. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male. |  |  | Female. |  |  |  |  |
|  | Total. | Gainfully employed. |  | Total. | Gainfully employed. |  |  |  |
|  |  | $\begin{aligned} & \text { Num- } \\ & \text { ber. } \end{aligned}$ |  |  | Number. | Per cent of total. | Male. | $\mathrm{Fe}-$ male. |
| All classes.. | 9,328 | 5,659 | 60.7 | 7,672 | 1,213 | 15.8 | 81.3 | 23.4 |
| White | 8,760 | 5,320 | 60.7 | 7,197 | 1,039 | 14.4 | 80.6 | 19.6 |
| Native. Foreign-born | $\begin{array}{r}7,786 \\ \hline 974\end{array}$ | 4,667 | $\begin{aligned} & 59.9 \\ & 67.0 \end{aligned}$ | 6,426 | 858 181 | $\begin{aligned} & 13.4 \\ & 23.5 \end{aligned}$ | $\begin{aligned} & 77.9 \\ & 90.0 \end{aligned}$ | 19.2 21.7 |
| Colored. | 568 | 339 | 59.7 | 475 | 174 | 36.6 | 87.0 | 53.7 |
| Negro. Other colored. | 535 33 | 325 14 | $\begin{aligned} & 60.7 \\ & (2) \end{aligned}$ | 448 27 | 170 | ${ }_{(2)}^{37}{ }^{3}$ | 87.0 80.8 | 54.7 17.6 |

${ }_{2} 1$ Includes the small number whose age was not reported.
${ }_{2}$ Per cent not shown where base is less than 100 .

Of the 9,328 male deaf-mutes 10 years of age or over in 1910 for whom schedules were returned, 5,659 , representing 60.7 per cent, or about three-iffths, were reported as being gainfully employed, as compared with a corresponding percentage of 81.3 for the total male population of that age. Of the 7,672 female deaf-mutes of the same age returning schedules, 1,213 , representing 15.8 per cent, or about one-sixth, were reported as gainfully employed, the corresponding percentage for the general population being 23.4. In view of the fact that deaf-mutes ordinarily enter and leave school at a later age than hearing persons, and consequently commence earning their living later in life, it is possible that a comparison based upon the population 20 years of age or over would be somewhat more favorable to the deaf and dumb. The figures make it evident, however, that deaf-mutism is the cause of a serious economic loss to the community, the loss apparently being greatest relatively in the case of females. This is probably to be explained in large measure by the fact that gainful employment is not a matter of necessity for women to the same extent that it is for men, so that the former are perhaps more likely to be deterred from such employment by physical defects than are the latter. Another factor which may have some influence in this connection is the circumstance that the proportion of persons who have received any education and thus are equipped in some measure for overcoming the disadvantages attendant upon their defect is smaller among female deaf-mutes than among males. It must, however, be remembered that some of the females not reporting a gainful employment were engaged in household tasks in the home, work of distinct economic value to the community.

Of the several race and nativity classes for which the percentages gainfully employed among the deaf and dumb are given in the table, the foreignborn whites show the highest percentage among the males (67) and the native whites the lowest (59.9), although that for Negroes was nearly as low (60.7). In the case of the females the Negroes show the highest percentage (37.9) and the native whites the lowest (13.4). These differences reflect in a general way the differences in the corresponding percentages in the general population, although the variations among the several classes for the total and the deaf and dumb population differ somewhat in degree. It will be observed that in the case of males the difference between the percentage gainfully employed among the deaf and dumb and in the total population was greatest relatively for the Negroes and least for the native whites, a circumstance which is probably due to the difference in the extent to which the deaf-mutes in the respective race and nativity classes have been to a special school for the deaf and learned a trade or other occupation. In the case of females, however, the relative difference between the percentages gainfully employed in the general population and among the deaf and dumb returning the
special schedules was approximately the same for the native whites and the Negroes, while for the foreignborn whites the percentage was actually higher among the deaf and dumb represented in the tabulation than in the general population (23.5 as compared with 21.7). This latter variation is, however, somewhat difficult to explain.

The population enumerators were instructed, in making their returns as to occupation, to make the entry own income in the case of all persons who followed no specific occupation but had an independent income upon which they were living. An examination of the returns makes it apparent that there was a considerable diversity of interpretation in the application of these instructions, some enumerators reporting "own income" only when such income was adequate for the support of the person enumerated, while others went so far as to make this return for persons receiving county poor relief. For this reason statistics on this subject are somewhat inaccurate; as a matter of interest, however, a separate tabulation was made of the persons for whom this return was made. The total number of such persons, as will be seen from General Table 28 (p. 166), was 140, representing only 1.4 per cent of the total deaf and dumb population 10 years of age or over not gainfully employed for whom special schedules were returned; most of these were whites, only 5 being colored.
General Table 28 (p. 164) presents statistics as to the occupations of the male and female deaf and dumb population 10 years of age or over in 1910 for whom special schedules were returned, classified according to race and nativity. In order to bring out more clearly the important occupations for the deaf and dumb, Table 100 , on the following page, is presented, showing the leading occupations, arranged in order of numerical importance, for the male deaf-mutes 10 years of age or over, classified according to race and nativity.
Practically three-fifths ( 59.5 per cent) of the male deaf-mutes reporting an occupation were employed in some one of the 10 leading occupations shown in the table, comprising all in which as many as 100 males were employed. Farmers were most important numerically, representing 14.8 per cent, or about oneseventh, of the total number of deaf and dumb males gainfully employed and returning schedules; it is interesting to note that this percentage is approximately the same as the corresponding proportion for the general male population 10 years of age or over gainfully employed ( 18.8 per cent). Agricultural laborers, not including those on the home farm or connected with the stock raising industry, ranked next, forming 12.1 per cent (or about one-eighth) of the total, and agricultural laborers on the home farm third, with 8 per cent of the total. These three occupations together comprised 34.8 per cent, or a little more than one-third, of the total, a proportion practically the same as that for the total male population 10 years of age or over gainfully employed (33.8 per
cent). Laborers "not otherwise specified" ranked fourth, with 6 per cent of the total; these included mainly persons reporting that they were laborers without indicating any industry and were presumably in the great majority of instances common manual laborers, but in a considerable number of cases they
were persons who picked up a more or less precarious living by doing odd jobs and chores. Persons engaged in the various printing trades ranked fifth, with 4.7 per cent of the total; the importance of this class of occupations for the deaf and dumb is well known.

${ }^{1}$ Includes the small number whose age was not reported.
${ }^{2}$ Per cent distribution of "Other colored" not shown, as base is less than 109.

Some difference exists between the respective race and nativity classes in regard to the leading occupations for the deaf and dumb males. In the case of the native whites the rank of the principal occupations is practically the same as for all classes combined, and the distribution among the various occupational groups is also approximately the same. For the foreign-born whites also farmers ranked first in importance, although they formed a much smaller proportion of the total than in the case of the native whites ( 9.8 per cent, or about one-tenth, as compared with 15.9 per cent, or nearly one-sixth). Tailors, however, who ranked only eighth for all classes combined and ninth for the native whites, ranked second for the foreign-born whites, representing 8.1 per cent of the total. Agricultural laborers working out, not in stock raising, ranked third, with 7.7 per cent of the total, while laborers "not otherwise specified" and persons engaged in custom work and repairing on boots and shoes followed, each with 5.2 per cent of the total. Among the Negroes agricultural laborers working out constituted the most numerous class, representing 27.7 per cent, or more than one-fourth, of the total number of males reporting an occupation. Agricultural laborers on the home farm ranked second, with 16.3 per cent, or about one-sixth, of the total, and laborers "not otherwise specified" third, with 10.8 per cent, or one-tenth, of the total. The three occupations just mentioned gave employment to considerahly more than one-half ( 54.8 per cent) of the Negro males reported as gainfully employed. Farmers
ranked fourth, constituting 8.3 per cent of the total, and lumber-mill workers fifth, with 4 per cent of the total. Of the 14 males included under the heading of "Other colored" who were reported as gainfully employed, 9 were engaged in agricultural or kindred pursuits (see General Table 28, p. 164).
Table 101 shows for the female deaf-mutes returning schedules statistics similar to those shown in Table 100 for males.
Nearly one-half ( 48.6 per cent) of the female deafmutes gainfully employed and returning schedules were employed in one of the four leading occupations shown in the table, these comprising all occupations giving employment to as many as 60 females. Servants were most numerous, forming 20.5 per cent, or about one-fifth, of the total, while dressmakers ranked second, with 10.2 per cent, or about one-tenth, of the total; the number of laundresses, who ranked third, was practically the same as the number of dressmakers, forming 10.1 per cent of the total. Seamstresses ranked fourth and agricultural laborers on the home farm fifth.
The differences between the several race and nativity classes with respect to the principal occupations reported for the female deaf and dumb are on the whole somewhat less pronounced than was the case with the males. For the native whites, as for all classes combined, servants and dressmakers ranked first and second, respectively, representing practically the same proportions of the total as for all classes combined ( 20.4 per cent and 11 per cent). Laundresses and seamstresses exchanged places, the latter
representing 8.2 per cent of the total and the former 6.1 per cent, while housekeepers ranked fifth, although it is possible that the latter class includes some married women living at home who were erroneously reported as having a gainful occupation. Servants and dressmakers ranked first among the foreign-born whites, each group contributing 15.5 per cent, or nearly onesixth, of the total; as in the case of the native whites, seamstresses ranked third and laundresses fourth, with 9.4 and 8.8 per cent, respectively. Fifth place among the foreign-born white females, however, was held by tailoresses, who ranked only eleventh for all classes combined. The importance of the clothing industries as a means of occupation for foreign-born white female deaf-mutes appears from the fact that dressmakers, seamstresses, tailoresses, and other garment workers (including shirt, collar, and cuff makers), taken together, comprised 33.7 per cent, or about one-
third, of the total number returning schedules who were reported as gainfully occupied. This probably results in part from the fact that the foreign-born whites are largely concentrated in cities, where the clothing industry is most extensively carried on. Of the Negroes, nearly one-third (31.8 per cent) were laundresses or washerwomen and more than onefourth (27.1 per cent) servants, while agricultural laborers working out ranked third, with 19.4 per cent, or nearly one-fifth, of the total, and agricultural laborers on the home farm fourth, with 14.1 per cent, or about one-seventh, of the total. The four occupations specified comprised 92.4 per cent, or more than nine-tenths, of the female Negro deafrmutes for whom an occupation was reported, this narrow range of occupations bringing out the fact that little progress has yet been made towards helping this class of deaf-mutes to overcome the handicap resulting from their defect.

${ }^{1}$ Includes the small number whose age was not reported.
Obviously there are certain general classes of occupations from which deaf-mutes are by reason of their defect more or less debarred, whereas in others their defect would be little, if any, handicap. It thus becomes of interest to compare the distribution among the general groups of occupations of the deaf and dumb for whom schedules were returned with the corresponding distribution of the general population. While the main occupational groups forming the basis of the tabulation of the occupation statistics for the deaf and dumb differed slightly from those used in the general occupation tabulation, the resultant incomparability is not sufficient to affect the significance of such a comparison, which is therefore presented in Table 102, on the following page.

From this table it appears that deaf-mutism constitutes less of a bar to employment in manufacturing
and mechanical pursuits and building and hand trades than in any other broad occupational group, 47.7 per cent, or nearly one-half, of those gainfully employed and returning schedules being engaged in occupations of this character, as compared with a corresponding percentage of only 29.3 , or less than one-third, for the general population. If the occupational classification for the deaf and dumb and the general population had been identical, it is probable that the difference would have been even greater, as laborers "not otherwise specified," who in the statistios for the deaf and dumb were tabulated as engaged in unclassifiable occupations, appear in the general occupational tabulation to have been classified for the most part in the manufacturing and mechanical group. The proportions engaged in agriculture and allied industries were almost identical, being 35
per cent for the deaf and dumb and 34.7 per cent for the general population, or somewhat more than onethird in each case. The percentages engaged in all the other occupational groups shown in the table were, however, substantially higher for the general population than for the deaf and dumb. The difference is especially marked in the case of those engaged
in transportation and trade, who represented 7.2 and 9.9 per cent, respectively, of the general population gainfully employed, as compared with only 1.4 and 2.6 per cent, respeotively, of the deaf and dumb; it is obvious that for such occupations deaf-mutism would in the great majority of instances be an insuperable bar.

${ }^{1}$ Includes the small number whose age was not reported. Persons tabulated in General Table 28 as in occupations not peculiar to any industry or service group and in unclassifiable occupations are excluded.
${ }_{3}$ Less than one-tenth of 1 per cent.

When comparisons are made for males and females certain variations appear. For males not only the proportion engaged in manufacturing and mechanical pursuits and building and hand trades but also the proportion engaged in agricultural and kindred pursuits was higher among the deaf and dumb than in the general population. For females, on the other hand, the proportion of the deaf and dumb engaged in agricultural and kindred pursuits was only 13.8 per cent, as compared with 24.2 per cent in the general population; this, however, is probably due in part to the small proportion of Negroes returning schedules, since nearly three-fifths ( 58.1 per cent) of the females reported as engaged in agricultural and kindred pursuits at the census of 1910 belonged to this race. The proportion engaged in domestic and personal service was slightly higher for deaf and dumb females than for the total female population, the percentages being 38 and 33.8, respeotively. It is interesting to observe that the difference between the proportions engaged in manufacturing, mechanical, and allied pursuits was even greater relatively for females than for males, the percentage being 43.9 for the deaf and dumb and 24.3 for the general population in the former instance, as compared with corresponding percentages of 48.6 and 30.5 for malcs.

In the occupation tabulation for the general population "clerical occupations," under which head were included bookkeepers, stenographers and typewriters, clerks (except clerks in stores), and others in related occupations, were shown as a separate main group. Partly by reason of the slight extent to which such occupations would be carried on by the deaf and
dumb, a similar separation was not made in the oocupation statistics for the deaf and dumb, but the small number engaged in such occupations were grouped with a few others as "in occupations not peculiar to any one industry or service group." While an exact comparison between the relative numbers engaged in clerical occupations among the deaf and dumb and in the total population is for this reason not obtainable, a general indication of the difference in relative importance may be obtained by comparing the figures for bookkeepers, cashiers, and accountants, clerks (not in stores), and stenographers and typewriters. Persons engaged in these occupations constituted 4 per cent of the total number of persons 10 years of age or over gainfully employed in the general population. Among the deaf and dumb, on the other hand, only 56 persons were reported as engaged in bookkeeping or kindred occupations or as clerks other than in stores; the number of stenographers and typewriters, if any, was not tabulated separately, but even if it be assumed that the 19 persons shown in General Table 28 under the head of "All others" for oocupations not peculiar to any one industry or service group were all stenographers and typewriters, which is of course not the case, the proportion of the gainfully employed deaf and dumb returning schedules included in these three occupational classes would be only 1.1 per cent.
The only foreign countries for which detailed statistics in regard to the occupations of the deaf and dumb are available are England and Wales, Scotland, and Ireland. Table 103 shows for these countries the five leading occupations reported, respectively, for the male and the female deaf and dumb in 1911,
together with the percentage which the number employed in the respective occupations and in the five leading occupations taken together represented of the total reporting an occupation.

${ }_{2}^{1}$ Figures include persons returned simply as dumb.
${ }_{2}$ Figures cover the deaf, the dumb, and the deaf and dumb.
The leading occupations for the deaf and dumb in the countries shown in the table are, to a considerable extent, the same as in the United States. Thus serv-
ants, who rank first among the female deaf-mutes in the United States, also rank first among the deaf and dumb females in Ireland and second in England and Wales and in Scotland, while dressmakers, who hold second place in the United States, are first in England and Wales and in Scotland. Farmers, who lead among males in the United States, rank second in Ireland, and agricultural laborers, who are next in importance to farmers in the United States, rank third in England and Wales and fourth in Scotland, while general laborers are also among the five leading classes in England and Wales and Scotland and laborers in Ireland, these latter classes corresponding to laborers "not otherwise specified" for the United States, the occupational class ranking next to agricultural laborers among male deaf-mutes.

The report on the census of the deaf and dumb in the German Empire in 1900 also gives statistics as to the occupations of the deaf and dumb, the classification, however, being by industry groups. According to this report, occupations connected with agriculture, gardening, and animal husbandry gave employment to a larger number, both of deaf and dumb males and of deaf and dumb females, than any other industry group named, comprising 5,307 , or 32.2 per cent, of the 16,490 deaf and dumb males, and 3,412 , or 41.7 per cent, of the 8,182 deaf and dumb females reported as having an occupation. The group of occupations included under the heading "Clothing and cleansing" ranked second both for males and for females, with 4,635 , or 28.1 per cent of the total, in the former instance, and 2,648 , or 32.4 per cent of the total, in the latter. "Woodwork and carving" ranked third for males, with 1,668 , and the group included under the heading "Household service (including personal service) and labor of miscellaneous character" for females, with 1,307 . Separate statistics were presented for those who had been deafmutes "since earliest youth" and those whose deafmutism had occurred later; there was, however, no very material difference in the relative importance of the principal occupation groups for the two classes.

With a view to ascertaining more definitely the economic status of the deaf and dumb in the United States, so far as it could be determined from statistics relative to their occupations, questions were inserted on the special schedule asking whether, if the person for whom the schedule was returned was gainfully employed, he was self-supporting and was dependent on the occupation for a living, and also the amount of his annual earnings. General Table 29 (p. 167) contains a tabulation by occupation of the data obtained by means of these inquiries. Table 104 classifies the male and female deaf and dumb 10 years of age or over in 1910 gainfully employed and returning special schedules according to their situation as to self-support and dependence on their occupation and also according to their annual earnings.


1 Includes the small number whose age was not reported.
Of the 6,521 deaf and dumb persons returning special schedules who were gainfully employed and reported as to whether or not they were self-supporting, 5,139 , or nearly four-fifths ( 78.8 per cent), answered the inquiry in the affirmative. The proportion was considerably higher for males than for females, 81.7 per cent, or more than four-fifths, of the former being selfsupporting, as compared with 65.4 per cent, or nearly two-thirds, of the latter.

In order to understand the full significance of the statistics regarding the situation as to self-support, however, the figures relating to the dependence of the deaf and dumb person on his occupation for a living must be taken into consideration. The number of males reporting that they were self-supporting was 4,386, whereas 4,640 stated that they were dependent on their occupation for a living, so that 254 must have required assistance from friends or charitable agencies, either private or governmental. Similarly, while 753 females stated that they were self-supporting, 818 stated that they were dependent on their occupation for a living. These figures probably exaggerate the situation somewhat, as there is evidence that the inquiry in regard to dependence on the occupation for a living was, in some cases at least, misunderstood; instances were found, for example, where a young deaf and dumb person living with his parents stated that he was dependent on his occupation for a living, although it is improbable that his dependence could have been very great. So far as the information on the schedule permitted, however, those only were tabulated as dependent on their occupation for a living who, in so far as their occupation did not support them, would have
to depend upon charity for the necessities of life. The proportion dependent on their occupation was much higher for males than for females, being 86.4 per cent, or nearly seven-eighths, for the former, and 70.8 per cent, or somewhat more than two-thirds, for the latter. This difference results from the fact that a considerable number of the females tabulated as gainfully employed were deaf and dumb women living with their families. Taking everything into consideration it is apparent that while the loss to the community resulting from deaf-mutism should not be minimized, the deaf and dumb are, with proper training, in the great majority of instances able to make themselves productive and self-sustaining members of society.
In this connection a comparison of the statistics relating to the economic status of the deaf and dumb with the statistics on the same subject obtained for the blind at the census of 1910 is of interest. Of the 17,000 deaf-mutes 10 years of age or over in 1910 who returned schedules, 6,872 , representing 40.4 per cent, or two-fifths, were reported as gainfully employed; but of the 28,501 blind persons of the same age returning schedules, only 4,782 , representing 16.8 per cent, or one-sixth, were reported as employed. This comparison is perhaps unduly favorable to the deaf and dumb, by reason of the fact that blindness is a defect peculiarly incident to old age, so that a considerable number of the blind had undoubtedly retired from active employment when they lost their sight or would have done so before the date of the enumeration even if they had retained their vision. When the comparison is confined to the blind who lost their sight during the same period of life in which most of the deaf-mutes lost their hearing, namely, before reaching the age of 10 , however, the contrast is nearly as marked, since out of the 5,577 blind persons 10 years of age or over returning schedules whose sight was lost before the completion of the first decade of life, only 1,465 , representing 26.3 per cent, or a little more than one-fourth, were engaged in a gainful occupation. The contrast is even more pronounced when the statistics as to self-support and dependence on the occupation for a living are considered. Of the 4,782 blind persons returning schedules who reported themselves as gainfully employed, only 1,891 , or about two-fifths, stated that they were self-supporting, whereas 3,129 stated that they were dependent on their occupation for a living, so that at least 1,238 must have required outside assistance, as compared with a corresponding figure of only 319 in the case of the deaf and dumb, out of a total number gainfully employed which was larger by 2,100 . These figures make it apparent that, as compared with the blind, deaf-mutes occupy a relatively fortunate position.

The figures in regard to annual earnings in Table 104 make it clear, however, that the earning capacity of the deaf and dumb is by no means high, and that in all probability it has been considerably restricted by
reason of their defect. Of the deaf and dumb males reporting as to their annual earnings, more than onethird ( 34.2 per cent) reported earnings of less than $\$ 300$; this proportion, however, is much smaller than the corresponding proportion for the blind (65.1 per cent, or nearly two-thirds). To a certain extent the figure above given exaggerates the true situation, as a considerable number of deaf and dumb farmers apparently reported as their annual earnings merely the amount of cash actually received from the sale of farm products, without taking into account the value of farm products produced during the year but consumed on the farm, and it is possible that similar understatements may have been made by some of those engaged in other occupations. On the other hand, those reporting annual earnings of $\$ 1,000$ or over constituted only 6.4 per cent of the total. In this case a comparison with the blind is more favorable to the latter, of whom 8.1 per cent reported earnings of $\$ 1,000$ or over; this is mainly due to the fact that blindness is ordinarily not so much of a bar to occupations in trade or professional service, which are probably among the most highly remunerative, as is deaf-mutism. The
median earnings of the deaf and dumb males returning schedules, on the assumption that those reporting were evenly distributed within the individual groups, were $\$ 427.58$. The earnings of female deaf-mutes were much smaller than those of males, more than one-half ( 53.8 per cent) reporting earnings of less than $\$ 200$, and more than two-thirds ( 70.3 per cent) earnings of less than $\$ 300$. On the other hand, only 7.3 per cent reported earnings of $\$ 500$ or over, and only 0.3 per cent earnings of $\$ 1,000$ or over. The median earnings of the females reporting were $\$ 183.60$.

Table 105 shows the distribution according to status as to self-support, dependence on occupation for a living, and annual earnings of the male and female native white, foreign-born white, and colored deafmutes 10 years of age or over in 1910 for whom special schedules were returned. While the Negroes and the other colored were not tabulated separately, the statistics for the colored shown in the table may be regarded as affording an accurate representation of conditions among the Negroes, since of the 513 gainfully employed colored persons returning schedules, all but 18 were Negroes.

${ }^{1}$ Includes the small number whose age was not reported.

Both for males and for females the number of the gainfully employed deaf and dumb for whom schedules were returned who .were self-supporting was larger relatively among the foreign-born whites than for either of the other two classes shown in the table, 89.2 per cent, or about nine-tenths, of the foreign-born white males and 78.2 per cent, or more than threefourths, of the females who answered the inquiry on
this point stating that they were self-supporting. This is probably due in part to the fact that the foreign-born whites are largely concentrated in cities, where there are more opportunities than elsewhere for industrial employment, in which deaf-mutism appears to be less of a handicap than in the case of most occupations, and it is also probable that the number living with relatives who contribute in part to their support is not
so great, comparatively speaking, among the foreignborn whites as among the native classes; it will be seen, for example, by reference to Table 100 that agricultural laborers working on the home farm comprised a larger proportion of the total in the case of the native white and the colored males than in that of the foreignborn white. It is possible, however, that the figures give too favorable an impression of the economic status of foreign-born white deaf-mutes, as there is reason to believe that persons failing to return the special schedule, who probably include to a considerable extent the more ignorant and uneducated deaf-mutes, and who would therefore be less satisfactorily situated as to economic condition than those returning the schedules, were relatively numerous in the case of the foreign-born whites. Of the native white males, 81.4 per cent, or more than four-fifths, stated that they were self-supporting, and of the females, 66.5 per cent, or about two-thirds; among the colored the proportions were 71 per cent, or somewhat more than two-thirds, for the males and 46.4 per cent, or less than one-half, for the females. It will be observed that the number both of males and of females among the foreign-born whites who reported that they were self-supporting was greater than the number who reported that they were dependent on their occupation for a living, although the proportion reporting such dependence was higher for males among the foreign-born whites than in either of the other classes.
When the statistics relative to annual earnings are compared for the several classes, the foreign-born whites again make the best showing. Of the foreignborn white males reporting as to their earnings, only 21.5 per cent, or a little more than one-fifth, reported earnings of less than $\$ 300$, as compared with 33.4 per cent, or one-third, of the native whites and 76.9 per cent, or more than three-fourths, of the colored. On the other hand, 7.9 per cent of the foreign-born whites reported earnings of $\$ 1,000$ or over, while the proportion for the native whites was 6.5 per cent and that for the colored 0.9 per cent. The contrast is even more pronounced when comparison is made of the proportion reporting earnings of $\$ 500$ or over, which was 53.7 per cent, or more than one-half, for the foreign-born whites, 42.4 per cent, or somewhat more than two-fifths, for the native whites, and 6 per cent, or about one-sixteenth, for the colored. Of the colored males who reported as to their earnings, in fact, one-third ( 33.8 per cent) reported earnings of less than $\$ 100$, and 62 per cent, or more than three-fifths; earnings of less than $\$ 200$.

A comparison of the earnings for females in the several classes gives in the main similar results. The proportion reporting earnings of less than $\$ 300$ was 60.2 per oent, or three-fifths, for foreign-born white females, 67.8 per cent, or more than two-thirds, for the native whites, and 94.6 per cent, or about nineteentwentieths, for the colored. A larger number rela-
tively of the native than of the foreign-born white females reported annual earnings of $\$ 500$ or over, the respective percentages being 8.5 and 7.8 ; only 1 colored female reported earnings amounting to this figure. Considerably more than two-thirds (70.3 per cent) of the colored females reported earnings of less than $\$ 100$, and more than nine-tenths ( 91 per cent) earnings of less than $\$ 200$. From these latter figures, taken in conjunction with those for males, it is evident that there has as yet been comparatively little progress in making Negro deaf-mutes self-supporting, especially when the fact that those reporting were probably the most favorably situated from an economic standpoint is taken into consideration.

Table 106 shows the median earnings reported for the gainfully employed deaf and dumb in 1910 for whom schedules were returned in the three race and nativity classes for which figures are given in Table 105.

| Table 106, RACE AND NATIVITY. | MEDIAN ANNUAL EARNINGS OF GAINFULLY EMPLOYED deaf and dumb popula TION 10 YEARS OF AGE OR OVER FOR WHOM SPECLAL SCHEDULES WERE RETURNED: 1910. 1 |  |
| :---: | :---: | :---: |
|  | Male. | Female. |
| All classes. | \$427.58 | \$183.60 |
| Native white. | 432.58 | 198.51 |
| Foreign-born white | 526.76 | 256.67 |
| Colored........ | 157.38 | 71.15 |

${ }^{1}$ Based upon the population reporting as to annual earnings, including the small number whose age was not reported.

Both for males and for females the median earnings of the foreign-born whites were higher than those for any other class. In the case of males the median for this class was $\$ 526.76$, nearly $\$ 100$ higher than that for the native whites (\$432.58) and more than three times as great as that for the colored (\$157.38). For females the difference between the median for the foreign-born whites (\$256.67) and that for the native whites (\$198.51) was not so great, amounting to only about $\$ 60$; but the contrast between the median for the colored (\$71.15) and those for the two white classes was fully as pronounced relatively as in the case of males.
Table 107 shows the distribution according to status as to self-support, dependence on occupation for a living, and annual earnings of the deaf and dumb in each occupation carried on by as many as 100 persons for whom schedules were received.

A larger number relatively of tailors reported themselves as self-supporting than of persons in any other occupation shown in the table, the proportion being 88.6 per cent, or more than seven-eighths. Farmers ranked second in this respect, with a percentage of 86.6, or nearly seven-eighths, closely followed by printers, lithographers, and pressmen, of whom 86.3 per cent reported themselves as self-supporting. The proportion also exceeded four-fifths in the case of
boot and shoe factory workers, carpenters, and painters, glaziers, and varnishers. The number was smallest relatively for launderers and laundresses not in laundries, of whom only two-fifths ( 40 per cent) were self-supporting. Agricultural laborers on the
home farm followed, only 54.7 per cent, or somewhat more than one-half, reporting themselves as selfsupporting, while laborers "not otherwise specified" ranked next in this respect, with 61.7 per cent, or a little more than three-fifths.


The highest earnings were reported by those engaged in the printing trades, of whom 14.2 per cent, or oneseventh, stated that their annual earnings amounted to $\$ 1,000$ or over, and 2.6 per cent reported earnings of $\$ 1,500$ or over. Farmers were next in
this respect, 9.5 per cent, or about one-tenth, reporting earnings of $\$ 1,000$ or over and 3.5 per cent earnings of $\$ 1,500$ or over; this latter percentage was higher than the corresponding figure for any other occupational class shown in the table. The proportion
reporting earnings of $\$ 1,000$ or over was nearly as high, however, ( 9 per cent) for those engaged in custom work and repairing on boots and shoes. Tailors and carpenters were the only other classes for which the proportion whose earnings reached this figure exceeded 5 per cent, the percentage being 8.6 in the former instance and 5.4 in the latter. The group reporting the lowest earnings was that made up of launderers and laundresses, of whom 57 per cent, or nearly three-fifths, had earnings amounting to less than $\$ 100$ a year, 79.6 per cent, or four-fifths, earnings of less than $\$ 200$, and 87.1 per cent, or seveneighths, earnings of less than $\$ 300$. Agricultural laborers on the home farm ranked next in respect to the proportion in the lowest earnings group, 43.2 per cent, or more than two-fifths, reporting earnings of less than $\$ 100$; nearly three-fourths ( 73.5 per cent) reported earnings of less than $\$ 200$, and more than seven-eighths ( 88.6 per cent) earnings of less than $\$ 300$. The percentage reporting earnings of less than $\$ 300$ was higher for servants than for any other class shown in the table ( 90.3 per cent, or nine-tenths), while more than three-fourths ( 77.9 per cent) reported earnings of less than $\$ 200$, and more than onethird ( 36 per cent) earnings of less than $\$ 100$; it is probable, however, that some of these may have lived with their employer and failed to take into account the value of their board. About four-fifths ( 80.3 per cent) of the agricultural laborers working out, more than two-thirds ( 68.6 per cent) of the laborers "not otherwise specified," and nearly three-fifths (59.1 per cent) of the dressmakers also reported annual earnings of loss than $\$ 300$.

General Table 30 (p. 170) shows the situation as to self-support, dependence on occupation, and annual earnings for the gainfully employed deaf and dumb 10 years of age or over in 1910 for whom special schedules were returned, classified according to education, race and nativity, and sex. Table 108 shows for the main classes with respect to education, by sex, the percentage gainfully employed.

As would be expected, the number gainfully employed was larger relatively among those who had attended a special school for the deaf than among those who had not, representing 40.9 per cent, or twofifths, of those who reported attendance at such schools, as compared with 35 per cent of those who had been only to schools other than for the deaf and 38.8 per cent of those who stated that they had never been to school. The proportion was somewhat higher for those who had been both to a special school for the deaf and other schools than for those who had been only to a special school for the deaf ( 43.9 per cent as compared with 40.7 per cent). This probably results in part from the circumstance that those who had been to other schools comprised for the most part persons who had lost their hearing after they had to a greater or less extent acquired the faculty of speech,
so that their defect did not constitute so much of an impediment to their intercourse with others as is the case where hearing has been lost earlier in life; in addition, in a certain number of instances where deafmutes had been both to a school for the deaf and some other school, the latter was an institution of higher education, attendance at which made them better qualified to pursue a gainful occupation. It will be observed that the proportion gainfully employed among those who had never attended school was higher than that among persons who had attended school but had never been to an institution for the deaf. The reason for this is not altogether clear, although it may be due in part to the fact that the latter class comprised a relatively large proportion of persons who lost their hearing after they had acquired the power of speech in full, so that their loss of speech was probably in a large number of cases due to some special cause, such as physical or mental infirmity, which might also have interfered with their capacity for employment.

${ }^{1}$ Includes the small number whose age was not reported.
The difference between the several classes as to education in respect to the relative number gainfully employed is especially pronounced for males. Of those who had attended a special school for the deaf, more
than three-fifths ( 61.9 per cent) were gainfully employed, as compared with 47.6 per cent, or considerably less than one-half, of those whose education had been confined to other schools and 54.6 per cent, or somewhat more than one-half, of those reporting no education. The proportion reporting an occupation was higher for those who had been both to schools for the deaf and other schools than for those who had attended only a school for the deaf ( 63.9 per cent as compared with 61.9 per cent), and was considerably higher for those reporting no school attendance than for those reporting education only at a school primarily for the hearing ( 54.6 per cent as compared with 47.6 per cent).

The statistics for females show an interesting difference in one respect from those for males with regard to the relative number in the different classes who were gainfully employed. The proportion reporting an occupation was smaller relatively among those who had been to a special school for the deaf, taken as a group, than in any other class of those who reported as to their education, only 14.6 per cent, or about one-seventh, of the females in this class being engaged in a gainful occupation, as compared with 19.4 per cent, or nearly one-fifth, of those who had been to school but had not attended a
school for the deaf, and 22.1 per cent, or more than one-fifth, of those who had never been to school. It is probable that this results from a larger proportion of married women in this class, since deaf-mutes who through attendance at a school for the deaf have acquired facility in communicating with others and have been brought in contact with persons suffering from the same misfortune as themselves are probably more likely to marry than those who have not enjoyed these advantages, and married women are not so likely to pursue a gainful occupation as those who are more or less dependent upon themselves for support. As in the case of males, the proportion gainfully occupied was higher for those who had been both to a school for the deaf and to schools primarily for the hearing than for those who had been only to a school for the deaf, and higher for those who had never been to school than for those who had been only to a school primarily for the hearing.
Table 109 classifies the male and female deaf and dumb population 10 years of age or over and gainfully employed in 1910 according to education and status as to self-support, dependence on occupation, and annual earnings.


Of the males who had attended both a special school for the deaf and other schools and reported as to their ability for self-support, more than seven-eighths (88.1 per cent) reported that they were self-supporting, as compared with 82.9 per cent, or nearly five-sixths, of those who had been only to a special school for the deaf and 69.9 per cent, or seven-tenths, of those who had not been to school. The only groups for which significant comparisons can be made for females are those comprising persons who had been to a special school for the deaf only and persons who had never been to school, 68.8 per cent, or more than two-thirds, of the former reporting themselves as self-supporting, as compared with only about one-half ( 52.3 per cent) of the latter. It will be observed that among males who had been both to a special school for the deaf and other schools the numbers reporting themselves as selfsupporting and as dependent on their occupation for a living were exactly the same, but that for all other classes the number reporting themselves as dependent upon their occupation for a living exceeded the number who reported themselves as self-supporting.
In the case of males the class reporting the highest earnings was made up of persons who had been both to a special school for the deaf and to other schools, among whom 17.5 per cent, or one-sixth, of those answering the inquiry on this point reported earnings of $\$ 1,000$ or over, 61.7 per cent, or more than threefifths, earnings of $\$ 500$ or over, and only 20.8 per cent, or about one-fifth, earnings of less than $\$ 300$. Of those whose education had been confined to a school for the deaf, on the other hand, only 6.2 per cent reported earnings of $\$ 1,000$ or over and 43.7 per cent, or somewhat more than two-fifths, earnings of
$\$ 500$ or over, while 31.2 per cent, or nearly one-third, reported earnings of less than $\$ 300$. Of those who had not been to school, 18.3 per cent, or less than onefifth, reported earnings of $\$ 500$ or over and 65.9 per cent, or nearly two-thirds, earnings of less than $\$ 300$. Only 8 per cent of the females whose education had been confined to a special school for the deaf reported earnings of $\$ 500$ or over. Although the per cent distribution on the basis of annual earnings of the other classes reporting school attendance is not given in the table by reason of the smallness of the numbers involved, it will be seen that the percentage just given is below the average for all females reporting school attendance (8.5), as a result of a larger proportion reporting earnings of $\$ 500$ or over among those who had attended both a special school for the deaf and a school primarily for the hearing. More than two-thirds ( 68 per cent) of those females who had been to a special school for the deaf only reported earnings of less than $\$ 300$, this proportion being slightly above the average for all females reporting school attendance. Of the gainfully employed females who had never been to school, nearly three-fifths ( 57.3 per cent) reported earnings of less than $\$ 100$ and more than five-sixths ( 85.3 per cent) earnings of less than $\$ 300$, while only 2.7 per cent, or about 1 in 37 , reported earnings of $\$ 500$ or over.

Table 110 shows the distribution according to status as to self-support, dependence on occupation for a living, and annual earnings of the native white, foreignborn white, and colored deaf and dumb 10 years of age or over and gainfully employed in 1910 for whom special schedules were returned, classified according to education.

${ }^{1} 1$ Includes the small number whose age was not reported.
${ }^{2}$ Per cent distribution of those who attended schools other than for the deaf only and of the foreign-born white and colored who attended both special schools for the deaf and other schools not shown, as base is less than 100 in each case.

It is evident from this table that the differences in the economic status of the deaf-mutes in the several race and nativity classes are not due solely to the relative extent to which they have attended school, as even within the same classes with respect to education pronounced differences appear. Of the foreignborn whites who had attended only a school for the deaf and answered the inquiry as to self-support, for example, 87.3 per cent, or seven-eighths, reported themselves as self-supporting, as compared with 80.3 per cent, or four-fifths, of the native whites and 68.2 per cent, or more than two-thirds, of the colored. Among those who had never been to school, the proportion reporting themselves as self-supporting was in the case of the foreign-born whites nearly the same as for those who had attended schools for the deaf only ( 86.3 per cent, or nearly seven-eighths); but for the native whites and the colored the proportion was considerably smaller, being 60.6 and 60 per cent, respectively, or about three-ifths in each case. Among all classes of the foreign-born whites for which significant comparisons can be made, the number reporting themselves as self-supporting exceeded the number reporting themselves as dependent on their occupation for a living, a condition not found in the case of either the native whites or the colored.

The statistics in respect to earnings present even more marked contrasts. Of the foreign-born whites who had been only to a special school for the deaf, 47.6 per cent, or somewhat less than one-half, reported earnings of $\$ 500$ or over, as compared with 38.4 per cent, or less than two-fifths, of the native whites and 6.6 per cent of the colored. On the other hand, only 27.7 per cent, or more than one-fourth, of the foreignborn whites in this class reported earnings of less than $\$ 300$, while the corresponding proportion for the native whites was 36.4 per cent, or more than one-third, and that for the colored 75 per cent, or three-fourths. Again, 35.5 per cent, or more than one-third, of the foreign-born whites who had never been to school reported earnings of $\$ 500$ or over, while among the native whites the proportion was only 11.4 per cent and among the colored only 2.9 per cent. Moreover, only 33.9 per cent, or about one-third, of the foreignborn whites who stated that they had never been to school reported earnings of less than $\$ 300$, as compared with 75.7 per cent, or three-fourths, of the native whites and 90.8 per cent, or nine-tenths, of the colored. To a considerable extent these differences are probably due to more accurate returns, as the foreign-born whites are for the most part employed in manufacturing and mechanical occupations and the earnings reported by persons thus employed would, by reason of the fact that compensation in such occupations is ordinarily on a straight cash basis, be more likely to represent the actual earnings than would those reported by persons who, like the native whites and the
colored, are largely engaged in agriculture and similar pursuits, where a large part of the year's income is received in forms such as board and lodging or produce consumed on the farm, items which are apt to be overlooked in estimating the amount of earnings. In addition, the foreign-born whites, being concentrated in cities, would necessarily be more generally engaged in industrial occupations, which probably, in the majority of cases, are actually more remunerative than agricultural occupations, than would the other two classes, for whom the proportion living in rural communities is much higher.

## BLIND DEAF-MUTES.

Owing to the fact that an enumeration of the blind, as well as of the deaf and dumb, was made in connection with the population census of 1910, it is possible to present special statistics concerning blind deaf-mutes-that is, persons bereft of sight, hearing, and speech, except so far as the latter faculty may have been acquired by special training. The total number of such persons for whom both blind and deaf schedules were received was 96 ; the number actually reported as both blind and deaf and dumb was considerably greater, but by reason of the large number of cases in which persons were erroneously reported by the enumerators as being either blind or deaf and dumb it was decided to confine the tabulation for blind deaf-mutes to those returning both schedules, as these afforded an opportunity to verify the accuracy of the enumerators' returns.
General Table 31 (p. 176) shows the principal data for the blind deaf-mutes returning special schedules.

The geographic distribution of the blind deaf-mutes for whom special schedules werereturned was as follows:


The 96 blind deaf-mutes for whom schedules were returned comprised 52 males and 44 females; 79 were native whites, 11 foreign-born whites, and 6 Negroes. Nearly one-fourth (22) were under 20 years of age and practically the same proportion (23) 65 years of age or over.

Practically one-half (47) stated that their deafness was congenital, while 19 others lost their hearing before the age of 5 ; only 8 lost their hearing after reaching the age of 10 . Only 14, however, reported their blindness as congenital, while 15 others lost their sight before reaching the age of 5 ; on the other hand, 36 lost their sight in adult life. The majority of the blind deaf-mutes were in fact deaf-mutes who had lost their sight from causes independent of any relation to their deafness.

Cataract and meningitis were the causes of blindness most frequently reported, each being returned in 9 cases; scarlet fever, reported 5 times, and atrophy of the optic nerve and accident, each reported 4 times, ranked next in frequency. Meningitis ranked first as a cause of deafness for those whose deafness was acquired, accounting for 9 cases, the same number as for blindness; in 8 cases the disease had caused loss of both sight and hearing. Scarlet fever was returned as cause of deafness on 7 schedules and catarrh or colds on 4. No other definite cause of deafness was reported more than twice, the large number of cases of congenital deafness accounting for the small number of returns for most of the adventitious causes.

More than one-fifth (16) of the 77 persons who reported as to the relationship of their parents stated that their parents were first cousins. Five had defective parents, 1 having a blind father, 3 a blind mother, and 1 a deaf father. Seven had both blind brothers or sisters and deaf brothers or sisters; 3 reported blind brothers or sisters but none deaf, and 12 deaf brothers or sisters but none blind. Only 3 reported children; of these, 2 stated that their children were neither blind nor deaf, while the third failed to answer the inquiries on this subject. In considering the figures as to the existence of defects among other members of the same family; what has previously been said (p. 65) as to the quasi-duplication resulting from the return of schedules by two or more members of the same family should be borne in mind.

Only 55 of the 95 blind deaf-mutes 5 years of age or over were reported as having received any education. Of these, 30 had been only to a special school for the deaf; 5 had attended so-called "dual" schools, that is, schools giving instruction to both the blind and the deaf; 2 had attended separate schools for the blind and the deaf; 2 had attended a school for the blind only; and 1 had attended a school giving instruction to both the blind and the deaf and also a separate school for the deaf. One who had been to a school
for the deaf had also received instruction at an institution for the adult blind, and 1 had received instruction both at an institution for the blind and a school primarily for the seeing, the nature of the latter, however, not being indicated. Three were reported as having attended special schools, but from the returns it was uncertain whether they had attended schools for the blind, for the deaf, or for both classes, while 1 was reported as having attended a school for the deaf, but the schedule did not make it entirely clear as to whether he had ever been to a school for the blind. One was an inmate of a home for defective children and 4 were inmates of institutions for the feeble-minded. Two had been only to common schools, 1 had received instruction at a convent, and 1 had been only to a school for the seeing but did not indicate its character. Of the remainder, 35 were reported as having received no education, while for 5 no report was made on this subject.

Only 17 blind deaf-mutes 5 years of age or over reported themselves as able to read raised type. Of the others, 72 were unable to read raised type and 6 failed to answer the inquiry.

Five of the blind deaf-mutes 10 years of age or over reported that they used speech as a means of communication. Of these, 1 reported no other means, 2 stated that they also used writing, finger spelling, and the sign language, 1 used also writing, and 1 finger spelling. Of those who indicated definitely that they did not use speech as a means of communication, 15 used both finger spelling and the sign language; 11 writing, finger spelling, and the sign language; 10 finger spelling only; 1 writing and finger spelling; 1 the sign language only; and 22 miscellaneous methods, mainly motions. Five, by reason of physical and mental incapacity, were reported as using no means of communication. Of those who failed to answer the inquiry as to means of communication, 1 answered the inquiry as to ability to speak in the affirmative and 17 in the negative, while 4 made no statement on this point.

Only 5 blind deaf-mutes, all males, reported an occupation, 2 being broom makers, and 1 each a gardener, chair caner, and cabinet worker. One female reported an independent income. Of those gainfully employed, 3 reported themselves as self-supporting and 2 as not self-supporting; 3 stated that they were dependent on their occupation for a living and 2 that they were not. One reported annual earnings of less than $\$ 100,2$ earnings of $\$ 100$ but less than $\$ 200$, and 1 earnings of $\$ 200$ but less than $\$ 300$; the other did not state the amount of his earnings.

## GENERAL TABLES

TABLE 1.--DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO RACE, NATIVITY, AND SEX, BY DIVISIONS AND STATES: 1910.

| divison and state. | dear and |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | All classes. |  |  | White. |  |  |  |  |  |  |  |  | Colored. |  |  |  |  |  |  |  |  |
|  |  |  |  | Total. |  |  | Native. |  |  | Foreign-born. |  |  | Total. |  |  | Negro. |  |  | Other colored. |  |  |
|  | $\begin{aligned} & \text { Both } \\ & \text { sexes. } \end{aligned}$ | Male. | ${ }_{\text {Fe- }}^{\text {male }}$ | Both sexes | Male. | $\begin{gathered} \mathrm{Fe} \\ \text { male. } \end{gathered}$ | Both sexes | Male | $\underset{\text { male }}{\text { Fe- }}$ | $\begin{aligned} & \text { Both } \\ & \text { ssexs. } \end{aligned}$ | Male. | $\mathrm{Fe}-$ male. | Both | Male. | $\begin{gathered} \mathrm{Fe}- \\ \text { male. } \end{gathered}$ | Both sexes. | Male. | $\begin{aligned} & \text { Fe- } \\ & \text { male } \end{aligned}$ | Beth | Male. | Fee |
| Unted St | 19,153 | 10,507 | 8,646 | 18,016 | 9 988 | 8,128 | 16,178 | 8,855 | 7,323 | 1,838 | 1,033 | 805 | 1,137 | 619 | 518 | 1,069 | 584 | 485 | 68 | 35 | 33 |
| Geographic divisions: <br> New England. <br> East North Central <br> West North Central <br> East South Central <br> West South Central. <br> Mountain |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 4,133 | 2,331 | 1,802 | 4,074 | 2,296 | 1,788 | 3,422 | 1,926 | 1,496 | ${ }_{6} 26$ | 370 | ${ }_{282}$ | 59 | 35 | 24 | ${ }_{55}^{10}$ | ${ }_{34}^{4}$ | ${ }_{21}^{6}$ |  |  |  |
|  |  |  | ${ }^{1} 1,967$ | - | ${ }_{\text {2 }}^{2,336}$ | 1,940 | - | 2,045 | 1,710 | ${ }_{271}^{521}$ | 1291 | 230 <br> 130 | \% ${ }_{79}^{53}$ | +26 | ${ }_{36}^{27}$ | 47 |  | ${ }_{24}^{24}$ | ${ }^{6}$ | 3 <br> 10 | $\begin{array}{r}1 \\ \hline 12 \\ \hline\end{array}$ |
|  | 2,326 | 1,257 | 1,069 | 1,871 | i,o10 | , 861 | 1,848 | ,993 | 855 | 23 | 17 | 6 | 455 | 247 | 208 | 453 | 245 | 208 | 2 | ${ }_{2}$ |  |
|  | 1,865 | 1,005 | $8{ }^{80}$ | 1,581 | 85 | ${ }^{736}$ | 1,570 | ${ }^{837}$ | 733 | 11 | ${ }^{8}$ | 3 | 284 | 160 | 124 | ${ }_{158}^{284}$ | 160 | 124 |  |  |  |
|  | 1,633 | ${ }_{203} 20$ | 149 | ${ }^{1,437} 3$ | 196 | 143 | 1,403 | 734 176 | ${ }_{133}^{69}$ | - 34 | ${ }_{20}^{21}$ | 10 | 13 | ${ }^{94}$ | ${ }^{82}$ | ${ }_{4}^{158}$ | $\begin{array}{r}82 \\ 3 \\ \hline\end{array}$ | ${ }_{1}^{76}$ | ${ }^{18}$ | ${ }^{12}$ | ${ }_{5}^{6}$ |
|  | 581 | 314 | 267 | 574 | 311 | 263 | 514 | 280 | 234 | 60 | ${ }_{31}$ | 29 | 7 | 3 | 6 |  |  | 1 | 9 | ${ }_{3}$ | ${ }_{3}$ |
| new England: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| New Hampshire. | ${ }_{62}^{99}$ | 40 | 426 | ${ }_{6}^{99}$ | 50 | ${ }_{22}^{46}$ | ${ }_{47}^{80}$ | ${ }_{29}^{44}$ | 36 18 18 | 19 | ${ }_{11}$ | 10 |  |  |  |  |  |  |  |  |  |
| Massachusetts | 566 | 306 | 260 | 561 | 304 | 257 | 430 | 228 | 202 | 131 | 76 | 55 | ${ }_{6}^{5}$ | 2 | 3 | 5 | 2 | 3 |  |  |  |
| Conode Island.. | 1181 | 102 | ${ }_{79}^{53}$ | 181 | ${ }_{102}$ | ${ }_{79}$ | 89 152 | 88 | ${ }_{65}^{41}$ | 29 | 15 | 14 |  |  |  | 5 |  | 3 | 1 |  | 1 |
| Mmdie Athantic: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| New York..... | 2,348 | 1, 188 | 1,002 | 2,320 | 1,331 | ${ }_{133}^{989}$ | 1,852 | ${ }^{1}, 067$ | 785 111 | 468 | 264 24 | 204 |  |  |  |  | 14 | 11 | 3 | 1 | 2 |
| Pemnsylvania........ | 1,461 | 797 | 664 | 1,436 | 780 | 656 | 1,298 | 698 | 600 | 138 | 82 | 56 | 25 | 17 | 8 | 24 | 17 | 7 | 1 |  | i |
| East Nobtre Central: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Inlinois............... | 1,310 | ${ }_{720} 31$ | 590 | 1,292 | 346 | ${ }_{584}^{278}$ | 1,128 | 616 | ${ }_{512}^{271}$ | 22 | ${ }_{92}^{15}$ | ${ }_{72}^{7}$ |  | ${ }^{5}$ | 5 | 10 17 17 | [11 | ${ }^{5}$ |  |  |  |
| $\frac{\text { Michigan. }}{\text { Wisconsin }}$ | ${ }_{5}^{660}$ | 358 | ${ }_{202}^{302}$ | ${ }_{568}^{654}$ | 335 | 239 | ${ }_{421}^{543}$ | ${ }_{245}^{294}$ | 249 | 111 | ${ }_{81}^{68}$ | ${ }_{50}^{50}$ | ${ }^{6}$ | 3 | ${ }_{3}^{3}$ | 3 | 1 | 2 | 3 | 2 | i |
| Wres north Central: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Towa................ | 436 <br> 872 | ${ }_{478}^{249}$ | ${ }_{394}^{187}$ | 435 831 | 248 | ${ }_{376}^{187}$ | 396 797 | ${ }_{4}^{229}$ | ${ }_{357}^{167}$ | 34 | 19 | 20 <br> 19 | ${ }_{41}^{11}$ | ${ }^{23}$ | 18 | 10 | 23 | 17 | 1 |  |  |
| North Darota.: | 101 | 54 | 47 | 98 | 53 | 45 | 77 | 44 | 33 <br> 36 | 21 | 9 | 12 | 3 <br>  <br> 14 <br> 14 | ${ }_{9}^{1}$ | 5 |  |  |  | $\stackrel{3}{3}$ | ${ }_{9}^{1}$ | 2 |
| Nebraska.... | 280 | 155 | 125 | 280 | 155 | 125 | 248 | 136 | ${ }^{36}$ | 32 |  |  |  |  |  |  |  |  |  |  |  |
| Kansas.......... | 470 | 284 | 206 | 454 | 256 | 198 | 425 | 239 | 186 | 29 | 17 | 12 | 16 | 8 | 8 | i5 | 8 | 7 | 1 |  | i |
| South A minttc: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Delaware....... | 1988 | ${ }_{20} 10$ |  | ${ }_{316}^{17}$ | 10 |  | 17 | 10 |  |  |  |  |  |  |  |  |  | ${ }_{32}^{2}$ |  |  |  |
| District oi Columbi |  | 31 | 25 | 39 39 | ${ }_{123}$ | 16 138 | ${ }^{34}$ | 20 | ${ }^{14}$ | 5 | 3 | 2 | 17 | 8 | ${ }^{9}$ | 17 | 8 | ${ }_{8}$ |  |  |  |
| West Virginia | 304 | 162 | 142 | ${ }_{297}^{293}$ | 158 | ${ }_{139}^{133}$ | ${ }_{295}$ | 156 | ${ }_{139}^{133}$ | 2 | 2 |  | 7 | 4 | ${ }_{3}$ | 7 | 4 | ${ }_{3}$ |  |  |  |
| North Carolina... | 504 <br>  <br>  <br> 245 | 278 129 | 226 116 | 411 161 | ${ }_{79}^{23}$ | ${ }_{82}^{179}$ | 410 160 | ${ }_{78}^{231}$ | ${ }_{82}^{179}$ | 1 | 1 |  | 938 | 46 50 | 47 34 34 | ${ }_{84}^{91}$ | 44 | 47 | 2 | 2 |  |
| Georgla......... | 348 | 185 | 163 | 267 | 143 | 124 | ${ }_{266}$ | 143 | 123 | 1 |  | 1 | 81 | 42 | ${ }_{39}$ | 81 | 42 | 39 |  |  |  |
| Florida....... | 86 | 48 | 38 | 70 | 36 | 34 | 70 | 36 | 34 |  |  |  | 16 | 12 | 1 | 16 | 12 | 4 |  |  |  |
| Easy Sodta Centalal: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Tennessee.......... | 588 | 315 | 145 | 517 | ${ }_{27}^{274}$ | 243 | 514 | ${ }^{272}$ | 242 | 3 | 2 | 1 |  |  |  |  |  | 30 |  |  |  |
| Mississippi............ | 296 | 172 | 129 | 199 | 131 | $\stackrel{109}{88}$ | 199 | 134 | ${ }_{88}$ |  |  |  | ${ }_{97}^{74}$ | 56 | 36 41 4 | ${ }_{97}^{74}$ | 56 | ${ }_{41}^{36}$ |  |  |  |
| West South Centrat: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Louisiana...... | 304 | 1143 | 111 | 2212 | ${ }_{117}^{117}$ | $\stackrel{95}{130}$ | 229 | 115 | 94 126 | 3 <br> 8 <br> 8 | ${ }_{4}^{2}$ | 1 | 42 <br> 23 <br> 23 | 15 |  |  | ${ }_{3}^{26}$ | ${ }_{2}^{16}$ | 18 | 12 | $\cdots$ |
| Texas........ | 719 | 372 | 347 | 645 | 339 | 306 | 624 | 325 | 299 | 21 | 14 | 7 | 74 | 33 | 41 | 74 | 33 | 41 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| İahana... | 4 | $\begin{aligned} & 25 \\ & 2 \underline{2} \end{aligned}$ | -19 | 45 40 |  | $\stackrel{21}{19}$ | 39 39 |  | 20 17 | 6 | 5 | $\stackrel{1}{2}$ | ${ }_{1}^{3}$ | 1 | 2 | 1 | 1 |  | 1 | 1 |  |
| WYoming. | 109 | ${ }_{88}^{7}$ | 41 | 10 | ${ }_{6}{ }^{7}$ | 7 | ${ }_{100}^{12}$ | ${ }^{6}$ | 6 <br> 38 <br> 8 | ${ }_{6}$ | 1 | $\stackrel{1}{2}$ |  |  |  | 3 | 2 | 1 |  |  |  |
| New Mexico. | 59 5 16 | ${ }^{36}$ | ${ }^{23}$ | ${ }^{54}$ | ${ }^{34}$ | ${ }_{2}^{20}$ | ${ }^{54}$ | 34 | $\stackrel{20}{5}$ |  |  | i |  | $\begin{aligned} & 2 \\ & \hline \end{aligned}$ | 3 |  |  |  | 1 | ${ }_{1}^{2}$ | 3 |
| Utizons............... | ${ }^{68}$ | 31 | ${ }^{27}$ | $\stackrel{158}{78}$ | 31 | 27 | 49 | 25 | ${ }^{24}$ | 9 | 6 | 3 |  |  |  |  |  |  |  |  |  |
| Nevada......... |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ${ }_{130}^{152}$ | ${ }_{86}^{87}$ | ${ }_{64}^{65}$ | 199 129 | ${ }_{68}^{85}$ | $\stackrel{64}{63}$ | 137 110 | 78 57 | ${ }_{53}^{59}$ | ${ }_{19}^{12}$ | ${ }_{9}^{7}$ | 5 | 3 | 2 | 1 |  |  |  | 3 1 | 2 | 1 |
|  | 299 | 161 | 138 | 296 | 180 | 136 | 267 | 145 | 122 | 29 | 15 | 14 | 3 | 1 | 2 | 1 |  | 1 | 2 | 1 |  |

Table 2.-FOREIGN-BORN WHITE DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO COUNTRY OF BIRTH, BY DIVISIONS AND STATES: 1910.

| division and state. | FOREIGN-born White deaf and domb population for whom speclal schedules were returned: 1910. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total. | Born in- |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Austria. | $\begin{gathered} \text { Bal- } \\ \text { Kan } \\ \text { Fenin- } \\ \text { Sula. } \end{gathered}$ | Canada and Newfoundland. |  | $\begin{gathered} \text { Den- } \\ \text { mark. } \end{gathered}$ | $\begin{array}{\|l} \text { Eng- } \\ \text { land } \\ \text { and } \\ \text { Wales. } \end{array}$ | France. | Germany | Hungary. | Treland. | Italy. | $\left\|\begin{array}{c} \text { Neth- } \\ \text { er- } \\ \text { lands } \\ \text { and } \\ \text { Bel- } \\ \text { gium. } \end{array}\right\|$ | Norway. | $\begin{aligned} & \text { Rus- } \\ & \text { sia } \\ & \text { and } \\ & \text { Fin- } \\ & \text { lad. } \end{aligned}$ | Scotland. | $\begin{aligned} & \text { Swo- } \\ & \text { den. } \end{aligned}$ | $\left\|\begin{array}{c} \text { Swit- } \\ \text { zer- } \\ \text { land. } \end{array}\right\|$ | $\begin{aligned} & \text { Other } \\ & \text { coun- } \\ & \text { tries. } \end{aligned}$ |
|  |  |  |  | $\begin{gathered} \text { Of } \\ \text { French } \\ \text { parent- } \\ \text { age. } \end{gathered}$ | $\left\|\begin{array}{c} \text { Of } \\ \text { other } \\ \text { parent- } \\ \text { age. } \end{array}\right\|$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| United States. | 1,838 | 131 | 13 | 97 | 165 | 13 | 140 | 15 | 450 | 38 | 91 | 103 | 19 | 54 | 319 | 37 | 88 | 33 | 39 |
| Geographic Divisions: |  |  |  |  |  | 1 |  |  | 12 |  |  | 13 | 1 |  | 18 | 12 | 6 |  |  |
| Middle Atlantic... | 652 | 58 |  | 5 | 24 |  | 53 | 4 | 107 | 22 | 35 | 75 | 2 |  | 211 | 14 |  |  | 18 |
| East North Central. | 521 | 20 | 1 | 10 | 61 | $\cdots$ | 45 | 3 | 225 | 11 | 24 | 11 | 12 | 17 | 31 | 5 | 20 | 15 | 8 |
| West North Central. | 271 | 35 | 1 | 6 | 9 | 5 | 12 | 3 | 70 | 5 | 6 | 1 | 1 | 32 | 34 | 3 | 42 |  | 1 |
| South Atlantic..... | 23 |  |  |  | 1 |  | 1 |  | 8 |  | 4 | 1 |  |  | 7 |  |  |  |  |
| East South Central... | ${ }_{34}^{11}$ | 7 |  |  | 2 |  | 1 | 2 | 1 |  | 2 | 1 |  | $\cdots$ | 1 | 1 |  |  |  |
| Mountain............ | 30 | 4 |  | $\ddot{2}$ | 2 | 4 | 3 |  | 1 |  | 1 |  | 2 | 1 | 3 | 1 | 4 | 2 | 3 |
| Pacific....... | 60 |  | 2 |  | 9 |  | 9 | 1 | 17 | ...... | 1 | i |  | 1 | 4 | 1 | 4 | ${ }^{2}$ | 5 |
| New Eigliand: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maine....... | 24 |  |  |  | 11 |  | 3 |  |  |  |  |  |  |  |  |  |  |  |  |
| New Hampshire | 19 |  |  | 11 | 5 |  |  |  | i |  | 1 |  |  |  |  | 1 |  |  |  |
| Vermont..... | 15 |  |  |  | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Massachusetts. | 131 | 5 |  | 40 | 31 |  | 8 | 1 | 4 |  | 10 | 5 | 1 | ...... | 14 | 8 | 2 | - | 2 |
| Connecticut... | ${ }_{29}^{18}$ | 1 |  | 8 4 | 1 | $\cdots \cdots$ | $\frac{1}{2}$ | $\mathrm{i}^{-}$ | 5 |  | 4 | 3 |  |  | $\frac{1}{2}$ | 3 | 2 |  | 1 |
| Middle Atlantic: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| New York..... | 468 | 43 | 7 | 5 | 20 |  | 30 | 3 | 62 | 18 | 22 | 55 | 1 | 1 | 178 | 6 |  |  | 14 |
| New Jersey. | 46 138 | 4 | 9 |  | 2 |  | 2 | - | 14 | 1 | 12 | ${ }^{9}$ | 1 |  | 3 3 | 4 | 2 | 2 | 1 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| East North Central: Ohio. | 77 | 5 | 1 | 1 | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Indiana................. | 22 |  | 1 | ....... | 3 | .... | 10 | 1 | ${ }_{15}^{24}$ | 6 | 9 | 2 |  |  | 4 | 1 | 1 | 7 | 2 |
| mlinois... | 164 | 6 |  | 3 | 8 |  | 22 |  | 62 |  | 9 | ${ }^{-}$ |  | 7 | 19 | 1 |  | 2 | 3 |
| Michigan.. | 111 | 3 | ....... | 5 | 44 |  |  |  | 33 |  | 3 | 1 | 5 |  | 5 | 2 | 2 | 1 | 2 |
| Wisconsin. | 147 | 6 | ....... | 1 | 6 | 2 | 7 | 2 | 91 | 4 | 3 | 2 | 1 | 9 | 3 |  | 7 | 3 |  |
| West North Central: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Minnesota....... | 97 | 13 | 1 | 4 | 4 | 2 | 1 |  | 21 | 1 |  |  |  | 17 | 6 | 1 | 24 | 1 | 1 |
| Towa...... | 39 <br> 34 | 7 |  |  | 1 | 2 | 1 |  | 10 |  | 3 |  | 1 | 4 | 1 |  | 9 |  |  |
| North Daikota.. | 34 21 21 |  | ….... |  | 4 | 1 | 5 | 2 | 14 | $\cdots$ |  | 1 |  | .... | 6 | 1 | 2 | .. |  |
| South Dakota. | 19 | 1 | - | 1 |  |  |  | i | 4 |  |  |  | .. | 5 | 6 |  | 1 |  |  |
| Nebraska.. | 32 29 | 9 3 |  | 1 |  |  | 4 |  | 10 | 1 | ${ }^{-}$ |  |  | 1 | 2 | - | $\stackrel{4}{2}$ | 2 |  |
| South Atlantic: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Delaware..... |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maryland - ${ }^{\text {District }}$ - ${ }^{\text {a }}$ | 12 |  |  |  | 1 |  |  |  | 4 |  | 2 | 1 |  |  | 3 |  |  |  | i |
| District of Columbia | 5 |  |  |  |  |  | 1 |  | 2 |  |  |  |  |  | 2 |  |  |  |  |
| West Virginia.... | 1 |  |  |  |  |  |  |  |  |  | 2 |  |  |  | 1 |  |  |  |  |
| North Carolina.. | 1 |  |  |  |  |  |  |  | 1 |  |  |  |  |  |  |  |  |  |  |
| South Carolina. | 1 |  |  |  |  |  |  |  | 1 |  |  |  |  |  |  |  |  |  |  |
| Georgia........ <br> Florida | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| East South Central: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Kentucky........... | 8 3 | i |  |  | 1 |  | 1 |  | 1 |  | 2 |  |  | .... | 3 |  |  |  |  |
| Alabama-......... |  |  |  |  |  |  | - | . |  |  |  | 1 |  |  |  |  |  |  |  |
| Mississippi................ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| West South Central: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Arkansas........... | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 | 1 |  |
| Louisiana... | 3 |  |  |  |  |  |  | 2 |  |  |  |  |  |  |  |  | 1 | 1 | ...... |
| Okiahoma. | 8 |  |  |  |  | 1 | i |  | 2 |  |  |  |  |  | $1{ }^{-}$ |  | 1 | 2 |  |
| Texas..... | 21 | 7 |  |  | 2 |  |  |  | 6 |  |  |  | 1 |  |  | 1 | 1 |  | 3 |
| Mountain: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Montana.. | 6 | 1 |  |  | 1 | 1 | 1 |  |  |  |  |  |  | 1 |  |  | 1 |  |  |
| Idaho.... | 6 | 1 |  |  |  | 2 |  |  | 1 |  |  |  |  |  |  | 1 | 1 |  |  |
| Wyoming... | 2 6 | 2 |  |  |  |  | ..... |  |  |  |  |  |  |  |  |  |  |  |  |
| Colorado..... |  |  |  |  | 1 | .... |  |  |  |  | 1 |  |  |  | 3 |  |  |  |  |
| Arizona.... | i |  |  |  |  | i |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Utah..... | 9 |  |  | 1 |  |  | 2 |  |  |  |  |  | 2 |  |  |  | 2 | 2 |  |
| Nevada. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pacitic: |  |  |  | - |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Washington.. | 12 |  |  |  |  |  |  |  | 4 |  |  |  |  |  | 1 |  | 3 |  |  |
| Oregon...... Calfornia... | 19 29 |  |  |  | 2 |  |  | 1 | 8 |  |  |  |  |  | 1 | 1 |  | 2 |  |
| California. |  |  |  | . | 3 |  |  |  | 5 |  | i | 1 |  | ${ }^{-\cdots}$ | 2 |  | $i^{-}$ | 1 | 4 |

Table 3.-DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO AGE AND SEX, BY DIVISIONS AND STATES: 1910.


|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| W山⿳一巛凵 | W్mem | 当気式 | －\％${ }_{\text {¢ }}^{\text {¢ }}$ | స్ర్రㅇ్ర | 風式気 | N్ట్రీem | ¢్ట్ర్ల్M | $8{ }_{80}^{0}$ | 免鳥荌 |  |  | 茯萝㞻 |  | Nower | －1\％్ర్ర¢ | －゙も | 发荾式 | 式氖夢 | ¢¢¢0¢0 | A尔家 |  |  | N | － |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | ！ |  |  |  |  |  |  | $\begin{aligned} & \vdots \vdots \\ & \vdots \end{aligned}$ |  |
| Noむ | NoN |  | ornos | Went | vo＇心 | $\infty \times$ の\％ | Owe | －NW | werm | weos | Nర゙大 | $\omega \omega$ | atoro | ！ | wner |  | HNW | －NW | Wャッ | －ner | weos | wner | eror＇s |  |
|  | にく\＄্め | FNTMe |  | 占式出 | 風べ\％ | ¢్రజ్ద్ |  | ONom | セヘベ心 | 島尔 | 尔告N | もも世 | F®ơㅇư | ーロッ | \％\％్రీ |  | 込边 | 占岛\％ | $\infty$ | $\infty$＇®o | NTN | $\infty{ }^{\circ}{ }^{\circ}$ | 岛辰 |  |
| crasis | N（\％M | ジロ\％ | స్లuck |  | KNA | çemer | $9 \%$ ¢\％ | い式 |  | కષ్రర | \＄ిర్ర్ర | 呙め゙い | గNజ్రు | －$\omega$ | ＊せが | No | ¢8\％88 | N（N0） | ＋$+\boldsymbol{r}$ | 占上気 | ¢ $\sim$ H | むも心 | 出出こ |  |
| \＄8\％\％ | Nペ゙N | －\％ | ぢ出 | 뚜NNN | 風式 | ¢0⿹勹巳 | ఉょ゙気 | HNO | N్రు\％ | V®ư |  | ※N\％ | 容氙 | MNO |  | Nrom | N్ర్心ట | NTNTM | onit | $\infty$ ver | ， $\mathrm{S}_{6} \mathrm{~S}_{0}$ | ゆ6\％ |  |  |
| Reren | Nivucr | N（Nu） | Nన్రీ్ర |  | ゅ心岕 | ¢్ట山己心 | 出念吕 | ผのம | N（\％）웅 |  | \％ | ¢ヘ్ర\％ | N్ర్ర్ | Noos | ご家 | ーぃN | \＄（N్ర్ర | もざめ | Nざい | Norv | ¢ ¢ ¢ ¢ | ర్ర్ట入 | N（w్wer | \％\％¢ |
| \＆ickin | あぁ® | の馬 | もビ心 | ちぁふ | ぞゅせせ | ち®\％ | NONA | かかの | －－ | 上気気 | NN్ర్ర్ర | ข ¢¢ | 우없 | －wゅ | Бヵ\％ | ーロN | NNNAN | 「のぶ | のベめ | Nrom | ¢్ట入o | NN్స్ | WiNms | \％${ }_{9}^{0}$ |
| N（NTC | 5ため | －Min | べぢ5 | $\infty$ N－ | जैoror | Н®ou | N䁅出 | Nom | cout | ～び | ちゃめ゙く | －atit | ～ちむ | のv＇ | crón | Nom | FNEM | ミッ゙o |  | Nrom | H్రీ） | ๖う¢ | －¢N్ర్ర |  |
| ＊＊＊ | Cunto | －00 ${ }^{\text {cri }}$ | セキッ | ちのご | － | を゙ぃ世 | むいが | N上W | 6ち\％ | のமが心 | $\infty$－匂 | －ぢ\％ | ద¢0 | －¢か | －0．tra | $\square$ | 岛运出 |  | verit | werm | 저N여 | N0．0의 | ■凸¢ | \％\％ |
| に－¢ | ข ${ }^{\text {Nob }}$ | crime | ～ちゃષ్ర |  | F－TN | $\infty$ ¢N0 | N゙っため | $\omega \omega$ |  | －ちも | $\infty$ ¢ ${ }^{\text {com }}$ | $\infty$ 「馬 |  | Onv | 込気 | No | 言发宫 | いい荷 | Nwer | NWer | から㐌 | － | 『ゆ¢ |  |
| 島式 | ャたち | MNo | －ヘち | Asero | － | $\sim \infty$ | ビぃ\％ | $\Delta \omega$ | $\infty$ ere | のont | むたN | － $0^{\text {a }}$ | － | －NW | －స゙弋్ర |  | 气余出 | Н－0 | －$\omega$ | now | 出今口 | NNON | v＇rio |  |
|  | crote | Now | － | －cio | のにち | のッシ | シぃّ\％ | ONOT | へゅの | ーゴ心 | $\infty$－ | 0000 | 匂氝运 | Nost | －जn | ט！ | 小込 | ขの的 | $\omega \omega$ | mm | Nㅜㅇ̈ㅜ | 島も怘 | の式发 |  |
| N $\infty^{\text {®o }}$ | －$\omega$ | ヘロー | Nern | N＊＊ | wner＇ | －0㐌 | రఓむ | :ール | $0 \pm$ ¢ | －Nos | －6\％ | －$\infty$ | Notat | N : | －直 |  | －wto | ーが， | NHW |  | －¢ ¢ | のびす | －べち | \％\％${ }_{\text {\％}}^{\text {¢ }}$ |
| H00 | Now | Nomos | Nのジ | N0ヵか | カッv | のnロ゙ | かので | ーーN | An |  | erom | wner | vocus |  | －av |  |  | Hen | $\stackrel{\sim}{\square}$ |  | －oの | －¢ | NNA |  |
| Norn | NN＊ | －ws | ט |  | － | ャので | crerto | ！ぃ～ | Nos | －NW | － | Nいの | の岕 | ール | aro |  | ＊WV |  |  | Nーツ | －¢N | ヘ～ち | $N$ | \％${ }_{\text {¢ }}^{\text {O}}$ |
| Nower |  |  |  | $\begin{array}{\|c\|c}  \\ \hdashline \\ \hline \end{array}$ | Nome | Nosos | $\omega \omega^{\omega}$ |  | ーロN | No | טN ט | $\omega$ ¢ー』 | HNW |  |  |  | －NW | － |  | Nט | wner | Wan | －Nos |  |
| NNW | NH |  |  |  |  | －NW | Nin |  | min | 号ヵ | 交 |  | NNA | $\vdots \vdots \vdots$ |  |  | Mrs |  |  |  | NサO | WNOT | mm | \％${ }_{\text {¢ }}^{0}$ |
| －nN |  |  | ゅ |  |  |  | －rmon |  |  |  |  | $r-$ |  |  | HRN |  | 交 | ！ | $r i r$ |  | －rn |  | $\vdots$ | \％ |
|  | ！ | 京 |  | m！ | ： | ！ | $\square$ | ！ーロ |  |  | － |  |  |  | $1 \vdots$ |  | ： |  |  | $\because$ | N: N |  |  | \％ |
| ！ | ． | H | : ャ | ! ! ! |  |  | ！ | ！$\vdots$ | ． | ： | N :לی | ゅト |  | ！$\vdots$ | $\begin{aligned} & \vdots \\ & \vdots \end{aligned}$ | ！！ | ： | ！： |  | ． |  |  | ！ |  |

Table 3.-DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO AGE AND SEX, BY DIVISIONS AND STATES: 1910-Continued.


TABLE 4.--DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO RACE, NATIVITY, AND AGE, BY DIVISIONS: 1910.

| division and class or population. | deap and dumb population for whom speclal schedules were returned: 1910. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total. | $\left\lvert\, \begin{gathered} \text { Un- } \\ \text { der } 1 \\ \text { year } \\ \text { of } \\ \text { age. } \end{gathered}\right.$ | $\begin{aligned} & 1 \text { to } 4 \\ & \text { years } \\ & \text { of } \\ & \text { age. } \end{aligned}$ | $\left\|\begin{array}{c} 5 \text { to } 9 \\ \text { years } \\ \text { of } \\ \text { age. } \end{array}\right\|$ | $\begin{array}{\|l\|l} 10 \text { to } \\ 14 \\ \text { years } \\ \text { of } \\ \text { age. } \end{array}$ | $\begin{gathered} 15 \text { to } \\ 19 \\ \text { years } \\ \text { of } \\ \text { age. } \end{gathered}$ | $\left\lvert\, \begin{gathered} 20 \text { to } \\ 24 \\ \text { years } \\ \text { of } \\ \text { age. } \end{gathered}\right.$ | $\left\lvert\, \begin{gathered} 25 \text { to } \\ 29 \\ \text { years } \\ \text { of } \\ \text { age. } \end{gathered}\right.$ | $\begin{aligned} & 30 \text { to } \\ & 34 \\ & \text { years } \\ & \text { of } \\ & \text { age. } \end{aligned}$ | $\begin{gathered} 35 \text { to } \\ 39 \\ \text { years } \\ \text { of } \\ \text { age. } \end{gathered}$ | $\begin{gathered} 40 \text { to } \\ 44 \\ \text { years } \\ \text { of } \\ \text { age. } \end{gathered}$ | $\begin{gathered} 45 \text { to } \\ 49 \\ \text { years } \\ \text { of } \\ \text { age. } \end{gathered}$ | $\left\|\begin{array}{c} 50 \text { to } \\ 54 \\ \text { years } \\ \text { of } \\ \text { age. } \end{array}\right\|$ | $\left\|\begin{array}{c} 55 \text { to } \\ 59 \\ \text { years } \\ \text { of } \\ \text { age. } \end{array}\right\|$ | $\begin{gathered} 60 \text { to } \\ 64 \\ \text { years } \\ \text { of } \\ \text { age. } \end{gathered}$ | $\begin{aligned} & 65 \text { to } \\ & \text { og } \\ & \text { years } \\ & \text { of } \\ & \text { 2ge. } \end{aligned}$ | $\begin{gathered} 70 \text { to } \\ 74 \\ \text { years } \\ \text { of } \\ \text { age. } \end{gathered}$ | $\begin{gathered} 75 \text { to } \\ 79 \\ \text { years } \\ \text { of } \\ \text { age. } \end{gathered}$ | $\begin{gathered} 80 \text { to } \\ 84 \\ \text { years } \\ \text { of } \\ \text { age. } \end{gathered}$ | $\begin{gathered} 85 \\ \text { years } \\ \text { of age } \\ \text { or } \\ \text { over. } \end{gathered}$ | $\begin{array}{\|c\|c} \text { Age } \\ \text { not } \\ \text { re- } \\ \text { rort- } \\ \text { ed. } \end{array}$ |
| UNITED STATES. <br> All classes. | 19,153 | 3 | 300 | 1,850 | 2,569 | 2,403 | 2,062 | 1,706 | 1,347 | 1,517 | 1,344 | 1,251 | 899 | 603 | 475 | 388 | 207 | 122 | 48 | 32 | 27 |
| White. | 18,016 | 3 | 290 | 1,766 | 2,388 | 2,232 | 1,889 | 1,596 | 1,270 | 1,435 | 1,277 | 1,203 | 845 | 583 | 459 | 375 | 195 | 115 | 45 | 29 | 21 |
| Native. | 16,178 | 3 | 286 | 1,677 | 2,246 | 2,083 | 1,782 | 1,429 | 1,103 | 1,257 | 1,082 | 1,987 | 733 | 498 | 380 | 302 |  |  |  |  | 20 |
| Foreign-born | 1,838 |  | 4 | 189 | ${ }^{2,142}$ | , 149 | , 107 | ${ }^{167}$ | -167 | ${ }^{178}$ | ${ }^{195}$ | 216 | 112 | 85 | 79 | 73 | $\begin{array}{r}33 \\ \hline\end{array}$ | 20 | 12 | 9 3 | $\frac{1}{6}$ |
| Colored.... | 1,137 1,069 | …… | 10 8 |  | 178 | 171 |  |  |  |  |  |  | 54 52 |  | 16 13 | 13 | 11 | 7 7 | 3 3 3 | 3 3 | $\begin{aligned} & 6 \\ & 6 \end{aligned}$ |
| Other colored |  |  | 2 | 6 | 7 | 15 | 14 | 7 | $\stackrel{8}{8}$ | 4 | ${ }_{3}$ | 2 | 2 | 2 | 3 | 2 | 1 |  |  |  |  |
| All classes. | 1,187 |  | 18 | 110 | 96 | 100 | 86 | 93 | 68 | 121 | 102 | 86 | 77 | 71 | 53 | 48 | 23 | 14 | 12 | 6 | 3 |
| White. | 1,176 |  | 18 | 109 | 95 | 98 | 85 | 91 | 68 | 119 | 101 | 86 | 77 |  | 53 | 48 | 22 | 14 | 12 | 6 |  |
| Native.... | 940 |  | 17 | 101 | 83 | 86 | 67 | 71 | 49 | 77 | 70 | 60 | 62 | 60 | 45 | 41 | 20 | 12 | 11 | 5 |  |
| Foreign-born. | 236 |  | 1 | 8 | 12 | 12 | 18 | 20 | 19 | 42 | 31 | 26 | 15 | 11 | 8 | 7 | 2 | 2 | 1 | 1 |  |
| Colored.... | 10 |  |  | 1 | 1 | 2 | 1 | 2 |  | 2 | 1 |  |  |  |  |  | 1 |  |  |  |  |
| Other colored. | 1 |  |  |  | i |  |  |  |  |  |  | .... | , |  |  |  |  |  |  |  |  |
| middle atlantic. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All classes.. | 4,133 | 1 | 45 | 550 | 639 | 539 | 331 | 310 | 264 | 304 | 313 | 246 | 169 | 119 | 113 | 92 | 48 | 30 | 9 | 9 | 2 |
| White. | 4,074 | 1 | 45 | 538 | 627 | 530 | 321 | 307 | 262 | 302 | 311 | 245 | 167 | 118 | 111 | 92 | 48 | 30 | 9 | 8 | 2 |
| Native... | 3,422 | 1 | 4 | 478 60 | 520 | ${ }_{98}^{432}$ | 285 36 | 250 57 | 201 61 | 256 46 | 264 47 | 196 | 149 | 104 | $\stackrel{87}{24}$ | 71 21 | 42 8 | 27 3 | 3 | 7 |  |
| Colored. | 59 |  |  | 12 | 12 | 9 | 10 | 3 | 2 | 2 | 2 | 1 | 2 | 1 | 2 |  |  |  |  | 1 |  |
| Negro........ | 55 4 |  |  | 10 2 | 12 | 9 | 9 | 3 | 2 | 2 | 2 | 1 | 2 | 1 | 1 |  |  |  |  | 1 |  |
| east north central. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All classes. | 4,329 | ...... | 60 | 288 | 429 | 413 | 403 | 432 | 369 | 445 | 389 | 377 | 241 | 156 | 124 | 93 | 61 | 25 | 12 | 6 | 6 |
| White. | 4,276 |  | 60 | 284 | 420 | 408 | 397 | 428 | 366 | 437 |  |  |  |  |  | 92 |  |  |  |  | 5 |
| Native. | 3,755 |  | 60 | 270 | 408 | 389 | 375 | 377 | 313 | 389 | 321 | 290 | 202 | 118 | 97 | 70 | 45 | 16 | 6 | 4 | 5 |
| Colored.... | 521 |  |  | 14 4 4 | 12 9 | 19 5 | 22 6 | 51 4 4 | $\begin{array}{r}53 \\ 3 \\ \hline\end{array}$ | 4888888 | ${ }_{6} 7$ | 85 2 | 38 1 | $\stackrel{37}{1}$ | 26 1 | 22 | 16 |  |  |  | - |
| Negro.. | 47 |  |  | 3 | 9 | 4 |  | 3 | 3 | 8 | 6 | 2 | 1 | 1 | 1 | 1 | . |  |  |  | 1 |
| Other colored | 6 |  |  | 1 |  | 1 | 2 | 1 |  | ..... | 1 |  |  |  |  | . | . | . |  |  |  |
| west north central. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All classes. | 2,767 |  | 36 | 193 | 384 | 356 | 316 | 285 | 203 | 231 | 173 | 222 | 135 | 85 | 59 | 53 | 25 | 17 | 4 | 5 | 5 |
| White. | 2,688 |  | 34 | 192 | 379 | 341 | 303 | 258 | 196 | 225 | 171 | 215 | 128 |  |  |  | 22 | 17 |  | 5 | 4 |
| Native. | 2,417 |  | 34 | 188 | 377 | 325 | 288 | 235 | 175 | 199 | 133 | 181 | 98 |  | 42 | 39 | 18 | 13 | 2 |  |  |
| Foreign-born | 271 |  |  | 4 | 2 | 16 | 15 | 23 | 21 | 26 | 38 | 34 | 30 | 18 | 15 | 14 | 4 | 4. | 2 | 5 |  |
| Coloredy... | 79 57 |  | 2 | 1 | 5 | 15 | 13 9 | 7 | 7 | 6 | 2 | 7 | 7 | 1 | 2 2 |  | 3 |  |  |  |  |
| Other colored. | 22 |  | 2 | 1 | 1 | 1 | 9 | 1 | 3 | 3 | $\ddot{2}$ | 2 |  | 1 |  |  | 1 |  |  |  |  |
| south atlantic. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All classes. | 2,326 |  | 49 | 265 | 328 | 338 | 300 | 218 | 132 | 124 | 136 | 117 | 114 | 68 | 45 | 47 | 15 | 16 | 5 | 5 | 4 |
| Whito. | 1,871 |  | 44 | 228 | 257 | 274 | 245 | 171 | 104 |  | 104 | 93 |  |  | 40 | 39 | 14 | 13 |  | 4 |  |
| Native. | 1,848 |  | 43 | 227 | 256 | 274 | 244 | 166 | 100 | 90 | 103 | 92 | 85 | 56 | 39 | 37 | 14 | 12 | 3 | 4 | 3 |
| Colored......... | 23 455 |  | 15 | 37 | 71 |  | 55 | $\begin{array}{r}5 \\ 4 \\ \hline\end{array}$ | 28 | 32 | 32 | 24 | 27 |  | $\frac{1}{5}$ | 2 |  | $\frac{1}{3}$ |  |  | i |
| Negro.......... | ${ }_{2} 4$ |  | 5 | 37 | 71 | 64 | 55 | 45 | 28 | 32 | 32 | 24 | 27 | 12 | 5 | 8 | 1 | 3 | 2 | 1 | 1 |
| east south central. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All classes.. | 1,865 |  | 43 | 196 | 318 | 330 | 243 | 144 | 120 | 96 | 92 | 74 | 72 | 48 | 34 | 24 | 16 | 9 | 3 | 1 | 2 |
| White. | 1,581 |  | 40 | 179 | 271 | 288 | 197 | 114 |  |  | 74 |  |  |  |  |  |  |  |  |  |  |
| Native. | 1,570 |  | 40 | 179 | 271 | 288 | 195 | 113 | 97 | 77 | 73 | 61 | 62 | 44 | 31 | 22 | 8 | 6 | 3 |  |  |
| Foreign-born | 11 |  | 3 | 17 | 47 | 42 | + ${ }_{46}$ | 1 30 | 2 21 21 | 18 | 18 | 11 |  | 4 |  | $\stackrel{\square}{2}$ | ${ }_{6}^{2}$ | 3 |  | 1 |  |
| Negro | 284 |  | 3 | 17 | 47 | 42 | 46 | 30 | 21 | 18 | 18 | 11 | 10 | 4 | 3 | 2 | 6 | 3 |  | 1 |  |

Table 4.-DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCEEDULES WERE RETURNED, CLASSIFIED ACCORDING TO RACE, NATIVITY, AND AGE, BY DIVISIONS: 1910-Continued.


TABLE 5.-DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO RACE, NATIVITY, AGE, AND SEX, FOR THE UNITED STATES AS A WHOLE: 1910.

|  |
| :--- | :--- | :--- |

Table 6.-MALE AND FEMALE DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO MARITAL CONDITION, BY DIVISIONS AND STATES: 1910.

${ }^{1}$ Includes the small number whose age was not reported.

Table 7.-MALE AND FEMALE DTAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO RACE, NATIVITY, AND MARITAL, CONDITION, FOR THE UNITED STATES AS A WHOLE: 1910.

| race and nativity. | deaf and dumb population for whom speclal schedules were returned: 1010. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male. |  |  |  |  |  |  |  | Female. |  |  |  |  |  |  |  |
|  |  | Under <br> 15 years of age. | 15 years of age or over. ${ }^{1}$ |  |  |  |  |  | Total. | Under <br> 15 years of age. | 15 years of age or over. 1 |  |  |  |  |  |
|  | Total. |  | Total. | Single. | Mar- ried. | Widowed. | $\underset{\text { vorced. }}{\text { Di- }}$ | Marital condition notre ported. |  |  | Total. | Single. | Married. | Widowed. | $\begin{gathered} \text { Di- } \\ \text { vorced. } \end{gathered}$ | Marita condition notre ported |
| All classes. | 10,507 | 2,582 | 7,925 | 5,388 | 2,326 | 162 | 29 | 20 | 8,646 | 2,140 | 6,506 | 3,806 | 2,315 | 351 | 20 | 14 |
| White Native Foreign-born | $\mathbf{9}, 888$ 8,855 1,033 | 2,430 2,283 $\mathbf{1 4 7}$ | 7,458 6,572 886 | 4,992 4,445 447 | 2,267 1,960 307 | 151 130 21 | 29 24 5 | $\begin{array}{r}19 \\ 13 \\ 6 \\ \hline\end{array}$ | 8,128 7,323 805 | 2,017 1,929 88 | 6, 6, 111 , 717 | 3,507 3,136 $\mathbf{3 7 1}$ | 2,256 1,971 $\mathbf{2 8 5}$ | 320 264 56 | 16 14 2 | 12 9 3 |
|  | 619 584 35 | 152 148 4 | 467 436 31 | 396 369 $\mathbf{2 7}$ | 59 56 3 | $\begin{array}{r}11 \\ 10 \\ \hline\end{array}$ |  | 1 | 518 485 33 | 123 112 11 | $\begin{array}{r}395 \\ 373 \\ \hline 22\end{array}$ | $\begin{array}{r}299 \\ 286 \\ \hline 13\end{array}$ | 59 53 6 | 31 28 3 | 4 | 2 |

${ }^{1}$ Includes the small number whose age was not reported.

TABLE 8.-MALE AND FEMALE DEAF AND D'UMB POPULATION 15 YEARS OF AGE OR OVER FOR WHOM SPECIAL SGHEDULES WERE RETURNED, CLASSIFIED ACOORDING TO AGE AT ENUMERATION AND MARITAL CONDITION, FOR THE UNITED STATES AS A WHOLE: 1910.

| AGE GROUP. | deat and dumb popolation 15 years of age or over for whou speclal schedoles were returned: 1910.1 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male. |  |  |  |  |  | Female. |  |  |  |  |  |
|  | Total. | Single. | Married. | Widowed. | Divorced. | Marital condition not reported | Total. | Single. | Married. | Widowed. | Divorced. | Marital conditi reported. |
| 15 years or over ${ }^{1}$. | 7,925 | 5,388 | 2,326 | 162 | 29 | 20 | 6,506 | 3,806 | 2,315 | 351 | 20 | 14 |
| 15 to 19 years. | 1,337 | 1,335 | 2 |  |  |  | 1,066 | 1,054 | 12 |  |  |  |
| 20 to 24 years. | 1,193 | 1,135 | 52 |  |  | 5 | 869 | 707 | 154 | 4 |  |  |
| 25 to 29 years. | 917 696 | 731 423 | 179 289 | $\stackrel{4}{2}$ | 1 | 2 | 789 651 | 442 986 | 331 <br> 351 | 12 |  | 3 |
| 30 to 34 years. | 824 | 425 | 383 | 10 | 4 | 2 | ${ }_{693}^{691}$ | 269 | 351 407 | 14 | $\stackrel{1}{2}$ | 1 |
| 40 to 44 years. | 733 | 314 | 390 | 21 | 7 | 1 | 611 | 256 | 314 | 34 | 7 |  |
| 45 to 49 years. | 684 | 294 | 363 | 22 | 4 | 1 | 567 | 216 | 313 | 36 |  |  |
| 50 to 54 years. | 517 | 238 | 264 | 10 | 2 | 3 | 382 | 170 | 166 | 42 | 3 | 1 |
| 55 to 59 years.. | 342 | 173 | 148 | 17 | 4 |  | 261 | 116 | 108 | 35 | 2 |  |
| 60 to 64 years. <br> 65 to 69 years. | 249 | 110 94 | 123 89 | 14 26 | $\frac{1}{2}$ | 1 | 226 177 | 108 74 | 76 52 | 41 | -......... | 1 <br> 2 |
| 70 to 74 years. | 104 | 54 | 37 | 13 |  |  |  |  |  |  |  |  |
| 75 to 79 years... | 63 | 31 | 18 | 13 | 1 |  | 59 | 29 | 7 | 23 |  |  |
| 80 to 84 years.. | $\stackrel{21}{17}$ | 12 | 5 | 4 |  |  | $\stackrel{27}{ }$ | 14 | 2 | 10 | 1 |  |
|  | 17 17 | 10 9 | $\stackrel{2}{2}$ | 5 |  | 5 | 15 10 | $\stackrel{9}{5}$ |  | 6 1 |  |  |
|  |  |  |  |  |  |  |  | 5 | 3 | 1 |  | 1 |

[^26]TAble 9.-DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDing to age when hearing was lost, by divisions and states: 1910.

| division and state. | deaf and dumb fopulation for whom speclal schedules were returned: 1910. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total. | Con-gen- | Number whose deatness was- |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | Acquired. ${ }^{1}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | At less than 5 years of age. |  |  |  |  |  |  |  | At 5 to 9 years of age. |  |  |  |  |  | At 10 years of age over. | $\begin{aligned} & \text { At age } \\ & \text { not } \\ & \text { report- } \end{aligned}$ed. |
|  |  |  | Total. | Total. | Less than 1 year. | $\stackrel{1}{\text { year. }}$ | $\begin{gathered} 2 \\ \text { years. } \end{gathered}$ | $\begin{gathered} 3 \\ \text { years. } \end{gathered}$ | $\begin{gathered} 4 \\ \text { years. } \end{gathered}$ | $\left\|\begin{array}{c} \text { In- } \\ \text { fancy } \\ \text { (exact } \\ \text { age } \\ \text { not } \\ \text { report- } \\ \text { ed). } \end{array}\right\|$ | Total. | $\begin{gathered} 5 \\ \text { years. } \end{gathered}$ | $\begin{gathered} 6 \\ \text { years. } \end{gathered}$ | $\begin{gathered} 7 \\ \text { years. } \end{gathered}$ | $\begin{gathered} 8 \\ \text { years. } \end{gathered}$ | $\begin{gathered} 9 \\ \text { years. } \end{gathered}$ |  |  |
| United States.... | 19,153 | 7,533 | 11,620 | 9,254 | 1,628 | 2,375 | 2,606 | 1,572 | 959 | 114 | 1,594 | 714 | 454 | 319 | 73 | 34 | 140 | 632 |
| Geograpaic ditisions: New England | 1,187 | 453 | 734 | 593 | 94 | 142 | 173 | 117 | 65 |  | 87 | 53 | 16 | 12 | 3 | 3 |  | 49 |
| Middle Rtlantic....... | 4,133 | 1,465 | 2,668 | 2,079 | 302 | 521 | 626 | 375 | 238 | 17 | 403 | 177 | 128 | 77 | 17 | 4 | 25 | 161 |
| East North Central.. | 4,329 | 1, 434 | 2,895 | 2,328 | 385 | 562 | 673 | 411 | 245 | 52 | 396 | 194 | 101 | 81 | 14 | 6 | 30 | 141 |
| West North Central. | 2,767 | 1909 | 1,858 | 1,513 | 267 | 411 | 442 | 230 | 149 | 14 | 228 | 93 | 72 | 48 | 12 | 3 | 22 | 95 |
| South Atlantic..... | 2,326 | 1,292 | 1,034 | ${ }^{1} 773$ | 157 | 214 | 188 | 133 | 64 | 17 | 158 | 63 | 43 | 33 | 12 | 7 | 27 | 76 |
| East South Central.. | 1,865 | 954 | 911 | 697 | 156 | 192 | 171 | 101 | 72 | 5 | 137 | 59 | 42 | 22 | 8 | 6 | 15 | 62 |
| West South Central. | 1,613 | 743 | 870 | 717 | 165 | 190 | 183 | 112 | 64 | 3 | 111 | 42 | 31 | 27 | 6 | 5 | 11 | 31 |
| Mountain. | 352 581 | 114 169 | 238 412 | 209 345 | 46 56 | 50 93 | -34 | $\begin{array}{r}34 \\ 59 \\ \hline\end{array}$ | ${ }_{38}^{24}$ | 1 3 | 23 <br> 51 <br> 1 | 9 24 | + ${ }^{5}$ | 10 | 1 |  | 1 4 | 12 |
| New England: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maine............. | 166 99 | 82 25 | 84 | 64 | 7 | 15 | 23 20 | 12 | 13 |  | 5 <br> 8 | 3 6 | $\frac{1}{2}$ | 1 |  |  | 1 | 3 |
| Vermont.......... | 62 | 25 | 37 | 33 | 6 | 9 | 11 | 5 | 2 |  | 3 | 2 | 1 |  |  |  |  | 1 |
| Massachusetts...... | 566 | 205 | 361 | 281 | 56 | 66 | 75 | 61 | 23 |  | 48 | 24 | 9 | 9 | 3 | 3 | 2 | 30 |
| Rhode Island..... | 113 | 47 | ${ }^{66}$ | 49 | 7 | 8 | 16 | 10 | 8 |  | ${ }^{6}$ | 4 | $\frac{1}{2}$ | 1 |  |  | 1 | 10 |
| Connecticut........ | 181 | 69 | 112 | 90 | 11 | 23 | 28 | 15 | 11 | 2 | 17 | 14 | 2 | 1 |  |  | 1 | 4 |
| Mrodle atlantic: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| New Y Ork..... | 2,348 | 818 | 1,530 | 1,178 | 166 | 294 | 354 | 217 | 133 | 14 |  | 108 |  | 38 | 10 | 2 | 14 | 111 |
| New Jersey......... | 2,324 1,461 | 115 | 209 929 | 159 742 | 17 119 | 37 190 | 52 220 | 29 129 | 24 81 | 3 | 131 | $\stackrel{16}{53}$ | 47 | 10 29 | 3 4 | 2 | $\stackrel{2}{9}$ | 7 43 |
| Eabt North Central: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ohio................ | 1,154 | 396 | 758 | $\begin{array}{r}605 \\ \hline 355 \\ \hline\end{array}$ | 101 | 144 | 171 | 99 | 77 | 13 | 106 | 58 | 20 | ${ }_{13}^{20}$ | 1 | 2 | 13 | 34 |
| Inlinois... | 1,310 | 399 | 911 | 743 | 114 | 164 | 214 | 150 | 74 | 27 | 113 | 51 | 29 | 13 27 | 5 | 1 | 8 | 47 |
| Michigan.. | ${ }^{1} 660$ | 226 | 434 | 336 | 58 | 87 | 88 | 70 | 29 | 4 | 70 | 29 | 20 | 18 | 2 | 1 | 5 | ${ }_{23}$ |
| Wisconsin. | 571 | 213 | 358 | 289 | 44 | 77 | 94 | 46 | 22 | 6 | 51 | 31 | 16 | 3 |  | 1 | 2 | 16 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Minnesota | 499 | 154 | 345 | 287 | 61 | 83 | 71 | 47 | 23 | 2 | 38 | 18 | 11 | 8 | 1 |  |  | 20 |
| Iows..... | 436 | 141 <br> 304 | 295 | 238 | 37 | 52 | 84 | 36 | 23 | 1 | 40 | 15 | 11 | 10 | 3 | 1 | 5 | 17 |
| Missouri.......... | 872 | 304 | 588 | 448 | 73 | 129 | 127 | 62 | 53 | 4 | 80 | 29 | 27 | 16 | 6 | 2 | 6 | 34 |
| North Daioota....... | 101 | 31 39 | 70 | 54 | 10 | 18 | 11 | 9 | 4 | 2 | 13 | ${ }_{6}^{6}$ | 4 | 3 |  |  | $\frac{1}{2}$ | 2 |
| South Dakota........ | 109 | 39 | 70 | 168 | 10 | 18 | 12 | 9 | ${ }^{9} 6$ |  | 10 16 | 7 | 2 | ${ }_{6}^{2}$ |  |  | 2 |  |
| Nebraska.............. | 280 470 | 89 151 | 191 319 | 167 266 | 27 49 | 66 6 | 47 90 | 29 38 | ${ }_{21}^{16}$ | $\stackrel{2}{3}$ | 16 31 | 12 | 15 | 6 3 | 1 |  | $\frac{1}{7}$ | 15 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maryland of Columbia. | $\begin{array}{r}388 \\ 56 \\ \hline\end{array}$ | 183 25 | 205 31 | 145 22 | $\stackrel{15}{2}$ | $\begin{array}{r}36 \\ 5 \\ \hline\end{array}$ | 18 | 34 4 4 | 11 | 1 | 37 7 | 13 | 9 | 9 | 3 | 3 | 2 | 1 |
| Virginia. | 376 | 216 | 160 | 113 | 24 | 21 | 32 | 16 | 15 | 5 | 27 | 12 | 5 | 7 | 1 | 2 |  | 12 |
| West Virginia. | 304 | 150 | 154 | 116 | 25 | 41 | 26 | 14 | 9 | 1 | 23 | 9 | 6 | 5 | 3 |  | 2 | 13 |
| North Carolina. | 504 | 321 | 183 | 140 | 35 | 45 | 20 | 27 | 9 | 4 | 29 | 10 | 10 | 4 | 5 |  | 3 | 11 |
| South Carolina. | 245 | 148 | -97 | 76 | 22 | 15 | 14 | 15 | 7 | 3 | 13 | 8 | ${ }^{6}$ | 2 |  |  | 4 | ${ }_{11}^{4}$ |
| Flortala... | 348 86 | 188 49 | 160 37 | 127 27 | 26 6 | 40 10 | 34 <br> 3 | ${ }_{6}^{15}$ | 1 | 2 1 | 18 4 | 8 | 4 | 5 |  | 1 | 3 | 11 3 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Kentucky | 664 | 310 | 354 | 267 | 51 | 73 | 72 | 45 | 26 |  | 53 | 22 | 21 | 7 |  |  | 7 | 27 |
| Tennessee........... | 588 | 303 | 285 | 225 | 51 | 71 | 54 | 24 | 21 | 4 | 38 | 14 | 14 | 6 | 3 | 1 | 4 |  |
| Alsbema............. | 317 296 | 172 169 | 145 | 113 92 | 30 24 | 29 19 | 27 18 | 17 15 | 10 15 | 1 | $\stackrel{24}{22}$ | 7 16 | ${ }_{1}^{6}$ | 6 3 | 3 2 | 2 | 2 2 | 11 |
| West south Central: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Louisiana.. | 254 | 166 | 88 | 70 | 16 | 15 | 21 | 13 | 4 | 1 | 13 | 5 | 8 | 1 | 1 |  | 3 | 2 |
| Oklahoma. | 304 | 111 | 193 | 161 334 | 33 81 | 37 101 | 53 76 | $\stackrel{24}{50}$ | 14 |  | ${ }_{23}^{23}$ | 8 | 5 | 9 |  | 1 | 2 | 7 |
| Texas..... | 719 | 315 | 404 | 334 | 81 | 101 | 76 | 50 | 26 | ...... | 46 | 18 | 11 | 11 | 3 | 3 | 5 | 19 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Montana. | 48 | 13 | 35 | 32 | 8 | 4 | 8 | 8 | 4 |  | 2 | 1 |  | 1 |  |  |  | 1 |
| Idaho.... | 41 | 11 | 30 | 26 | 7 | 5 | 6 | 4 | 4 | ....... | 3 | 2 |  | 1 |  |  |  | 1 |
| Wyoming. | 14 109 | $\begin{array}{r}5 \\ 27 \\ \hline\end{array}$ | 8 | 8 | 3 8 8 | 19 | $\begin{array}{r}2 \\ 2 \\ \hline\end{array}$ | ${ }_{13}^{2}$ | 11 |  | 11 | 3 | 4 | 4 |  |  |  |  |
| New Mexico. | +59 | 31 | 28 | 23 | 8 | 7 | 4 | 2 | 2 | ….... | 4 | 2 | 4 | 4 |  |  |  | i |
| Arizona.... | 16 | 5 | 11 | 10 | 2 | 5 | 1 | 1 | 1 |  | 1 |  |  | 1 |  |  |  |  |
| Utah........ | 58 | 19 | 39 | 35 | 9 | 9 | 11 | 4 | 1 |  | 1 | 1 |  |  |  |  | 1 | 2 |
| Nevada....... | 7 | 3 | 4 | 4 | 1 |  | 2 | ...... | 1 |  |  |  |  |  |  |  |  |  |
| Pactic: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Washington... | 152 | 38 | 114 | 93 | 14 | 26 | ${ }_{18}^{28}$ | 15 |  | $\ldots$ | 17 | 7 | 7 | 3 |  |  | 2 |  |
| Oregon..... | 130 | 33 98 | 97 201 | 81 171 | ${ }_{26}^{16}$ | ${ }_{46}^{21}$ | 18 | 18 | 7 | 1 | 9 | 3 | 3 | 2 | 1 |  |  | 7 |
| California | 299 | 98 | 201 | 171 | 26 | 46 | 50 | 26 | 21 | 2 | 25 | 14 | 6 | 5 |  |  | 2 | 8 |

${ }_{1}^{1}$ Includes those for whom the age when hearing was lost was not reported.

TABLE 10.-DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO RACE, NATIVITY, SEX, AGE AT ENUMERATION, AND AGE WHEN HEARING WAS LOST, FOR THE UNITED STATES AS A WHOLE: 1910.


Table 10.-DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO RACE, NATIVITY, SEX, AGE AT ENUMERATION, AND AGE WHEN HEARING WAS LOST, FOR THE UNITED STATES AS A WHOLE: 1910-Continued.

${ }^{1}$ Includes those for whom the age when hearing was lost was not reported.

TABLE 10.-DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO RACE, NATIVITY, SEX, AGE AT ENUMERATION, AND AGE WHEN HEARING WAS LOST, FOR THE UNITED STATES AS A WHOLE: 1910-Continued.


Table 10.-DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED. CLASSIFIED ACCORDING TO RACE, NATIVITY, SEX, AGE AT ENUMERATION, AND AGE WHEN HEARING WAS LOST, FOR THE UNITED STATES AS A WHOLE: 1910-Continued.

${ }^{1}$ Includes those for whom the age when hearing was lost was not reported.

TAbLE 11.-DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO BROAD AGE GROUPS AND AGE WHEN HEARING WAS LOST, BY DIVISIONS: 1910.

| division and age group. | dear and dumb population for whom special schedules were returned: 1910. |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total. | Number whose deafness was- |  |  |  |  |  |  |  |  |
|  |  | Congenital. | Acquired. ${ }^{1}$ |  |  |  |  |  |  |  |
|  |  |  | Total. | At less than 5 . years of age. |  |  |  | At 5 to 9 years of age. | At 10 years or age or over. | $\begin{gathered} \text { At age } \\ \text { not } \\ \text { reported. } \end{gathered}$ |
|  |  |  |  | Total. | Less than 2 years. | 2 to 4 years. | $\begin{aligned} & \text { Infancy } \\ & \text { (exactage } \\ & \text { not } \\ & \text { reported). } \end{aligned}$ |  |  |  |
| United States. <br> All ages ${ }^{2}$. $\qquad$ | 19,153 | 7,533 | 11,620 | 9,254 | 4,003 | 5,137 | 114 | 1,594 | 140 | 632 |
| Under 20 years. <br> 20 to 64 years.... <br> 65 years or over. | $\begin{array}{r} 7,125 \\ \mathbf{1 1 , 2 0 4} \\ 797 \end{array}$ | 3,166 4,021 335 | $\begin{array}{r}3,959 \\ 7,183 \\ \hline 462\end{array}$ | 3,333 5,614 298 | 1,728 $\mathbf{2}, 192$ $\mathbf{8 0}$ | 1,549 3,369 $\mathbf{2 1 3}$ | $\begin{array}{r} 56 \\ 53 \\ 5 \end{array}$ | $\begin{array}{r} 354 \\ 1,149 \\ 90 \end{array}$ | 7 104 28 | 265 316 46 |
| All ages ${ }^{2}$. | 1,187 | 453 | 734 | 593 | 236 | 355 | 2 | 87 | 5 | 49 |
| Under 20 years........ 20 to 64 years. 65 years or over | $\begin{aligned} & 324 \\ & 757 \\ & 103 \end{aligned}$ | $\begin{gathered} 122 \\ 283 \\ 48 \end{gathered}$ | $\begin{gathered} 202 \\ 474 \\ \mathbf{4 7} \\ 55 \end{gathered}$ | $\begin{array}{r} 166 \\ 379 \\ 46 \\ 46 \end{array}$ | $\begin{array}{r} 86 \\ 137 \\ 13 \end{array}$ | $\begin{array}{r} 80 \\ 241 \\ 32 \end{array}$ | 1 | 14 69 4 | 1 | 22 22 4 |
| All ages ${ }^{2}$. | 4,133 | 1,465 | 2,668 | 2,079 | 823 | 1,239 | 17 | 403 | 25 | 161 |
| Under 20 years. <br> 20 to 64 years. <br> 65 years or over | $\begin{array}{r} 1,774 \\ \mathbf{1 , 7 6 9} \\ \mathbf{1 8 8} \end{array}$ | $\begin{gathered} 674 \\ 709 \\ 81 \end{gathered}$ | 1,100 1,460 107 | 883 1,116 79 | $\begin{gathered} 412 \\ 383 \\ 27 \end{gathered}$ | $\begin{gathered} 462 \\ 726 \\ 526 \end{gathered}$ | $\begin{aligned} & 9 \\ & 7 \\ & 1 \end{aligned}$ | 137 246 20 | 2 2 1 | 78 76 7 |
| All ages ${ }^{2}$. | 4,329 | 1,434 | 2,895 | 2,328 | 947 | 1,329 | 52 | 396 | 30 | 141 |
| Under 20 years 20 to 64 years. 65 years or over. | $\begin{aligned} & 1,190 \\ & \mathbf{2}, 936 \\ & \mathbf{1 9 7} \end{aligned}$ | $\begin{array}{r} 507 \\ 855 \\ 70 \end{array}$ | 683 2,081 127 | 592 1,654 79 | 296 632 18 | $\begin{gathered} 272 \\ 997 \\ 58 \end{gathered}$ | $\begin{array}{r} 24 \\ 25 \\ 35 \end{array}$ | $\begin{array}{r} 51 \\ 320 \\ 320 \\ 25 \end{array}$ | $\begin{gathered} 1 \\ 20 \\ 9 \end{gathered}$ | 39 87 14 |
| All ages ${ }^{2}$ | 2,767 | 909 | 1,858 | 1,513 | 678 | 821 | 14 | 228 | 22 | 95 |
| Under 20 years.... <br> 20 to 64 years. <br> 65 years or over | $\begin{array}{r} 969 \\ 1,689 \\ 104 \end{array}$ | $\begin{array}{r} 390 \\ 481 \\ 36 \end{array}$ | $\begin{array}{r} 579 \\ 1,208 \\ 68 \end{array}$ | $\begin{gathered} 501 \\ 968 \\ 44 \end{gathered}$ | $\begin{array}{r} 265 \\ 406 \\ 7 \end{array}$ | $\begin{gathered} 230 \\ 554 \\ 37 \end{gathered}$ | $\begin{aligned} & \hline 6 \\ & 8 \end{aligned}$ | $\begin{array}{r} 43 \\ 172 \\ 13 \end{array}$ | $\begin{array}{r} 16 \\ 50 \\ \hline \end{array}$ | 35 52 6 |
| All ages ${ }^{2}$..... | 2,326 | 1,292 | 1,034 | 773 | 371 | 385 | 17 | 158 | 27 | 76 |
| Under 20 years <br> 20 to 64 years.. <br> 65 years or over. | $\begin{array}{r} 980 \\ 1,254 \\ 88 \end{array}$ | $\begin{gathered} 538 \\ 698 \\ 53 \end{gathered}$ | 442 556 35 | 363 395 15 | $\begin{gathered} 202 \\ 163 \\ 6 \end{gathered}$ | $\begin{gathered} 150 \\ 226 \\ 9 . \end{gathered}$ | $\begin{array}{\|c\|} \hline 11 \\ \hline \end{array}$ | $\begin{array}{r} 38 \\ 110 \\ 10 \end{array}$ | $\begin{gathered} 21 \\ 21 \\ 4 \end{gathered}$ | 39 30 6 |
| All ages ${ }^{2}$. | 1,865 | 954 | 911 | 697 | 348 | 344 | 5 | 137 | 15 | 62 |
| Under 20 years. 20 to 64 years. 65 years or over. | $\begin{gathered} 887 \\ 923 \\ 53 \end{gathered}$ | 480 452 4 | 407 471 32 | 341 341 14 | $\begin{array}{r} 193 \\ 151 \\ 4 \end{array}$ | $\begin{array}{r} 148 \\ 185 \\ 10 \end{array}$ | 5 | $\begin{gathered} \hline 36 \\ 93 \\ 83 \end{gathered}$ | 9 6 | 30 28 4 |
| All ages ${ }^{2}$. | 1,613 | 743 | 870 | 717 | 355 | 359 | 3 | 111 | 11 | 31 |
| Under 20 years. <br> 20 to 64 years. <br> 65 years or over. | $\begin{array}{r}686 \\ 886 \\ 38 \\ \hline\end{array}$ | $\begin{array}{r} 339 \\ 387 \\ 16 \end{array}$ | 347 499 22 | 309 394 13 | 180 170 4 | 126 224 9 | 3 | 20 85 5 | 1 <br> 8 <br> $\mathbf{8}$ | 17 12 2 |
| All ages ${ }^{2}$. | 352 | 114 | 238 | 209 | 96 | 112 | 1. | 23 | 1 | 5 |
| Under 20 years. 20 to 64 years... 65 years or over. | 128 216 7 | 44 67 3 | 84 149 4 | 78 128 2 | 44 51 1 | 34 76 1 | 1 | 3 18 2 | 1 | 3 2 |
| All ages ${ }^{2}$. | 581 | 169 | 412 | 345 | 149 | 193 | 3 | 51 | 4 | 12 |
| Under 20 years 20 to 64 years. 65 years or over. | 187 374 19 | 72 89 7 | 115 285 12 | 100 239 6 | 50 <br> 99 <br> $\ldots$ | 47 140 6 | 3 3 $\cdots \cdots \cdots \cdots$ | 12 36 3 | $\frac{1}{3}$ | 2 7 3 |

${ }^{1}$ Includes those for whom the age when hearing was lost was not reported.
${ }^{2}$ Includes the small number whose age at enumeration was not reported.

TABLE 12.-MALE AND FEMALE DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO AGE WHEN HEARING WAS LOST AND MARITAL CONDITION, FOR THE UNITED STATES AS A WHOLE: 1910.

${ }^{1}$ Includes those for whom the age when hearing was lost was not reported.

[^27]Table 13.-DEAF and dumb population for whom special schedules were returned,


CLASSIFIED ACCORDING TO REPORTED CAUSE OF DEAFNESS, BY DIVISIONS AND STATES: 1910.

| deaf and dumb population for whom special sceedules were returned: 1910-continued. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| New England division. |  |  |  |  |  | Middle Atlantic division. |  |  | East North Central division. |  |  |  |  | West North Central division. |  |  |  |  |  |  |  |
| Maine. | $\begin{gathered} \text { New } \\ \text { Hamp- } \\ \text { shire. } \end{gathered}$ | $\begin{gathered} \text { Ver- } \\ \text { mont. } \end{gathered}$ | $\begin{gathered} \text { Massa- } \\ \text { chut } \\ \text { sett. } \end{gathered}$ | Rhode Island. | Con-necticut. | $\begin{aligned} & \text { Now } \\ & \text { York. } \end{aligned}$ | $\begin{gathered} \text { New } \\ \text { Jersey. } \end{gathered}$ | $\begin{aligned} & \text { Penn- } \\ & \text { syl- } \\ & \text { vania. } \end{aligned}$ | Ohio. | $\begin{aligned} & \text { Indi- } \\ & \text { ana. } \end{aligned}$ | Illinois. | Michigan. | $\begin{gathered} \text { Wis- } \\ \text { consin. } \end{gathered}$ | $\begin{aligned} & \text { Minne- } \\ & \text { sota. } \end{aligned}$ | Iowa. | Missouri. | $\begin{gathered} \text { North } \\ \text { Da- } \\ \text { kota. } \end{gathered}$ | South Da- kota. | $\begin{gathered} \mathrm{Ne}- \\ \text { braska. } \end{gathered}$ | Kansas. |  |
| 166 | 99 | 62 | 566 | 113 | 181 | 2,348 | 324 | 1,461 | 1,154 | 634 | 1,310 | 660 | 571 | 499 | 436 | 872 | 101 | 109 | 280 | 470 | 1 |
| 1 | 1 |  | 4 | 1 |  | 3 |  | 4 | 5 | 3 | 6 | 2 | 1 | 3 | 2 | 5 | 1 | 1 | 1 | 1 | 2 |
| 1 |  |  | 1 |  |  | 1 |  |  |  |  | 1 | 1 |  | 2 |  | 3 |  |  |  |  | 3 |
|  |  |  | 1 | $\cdots$ |  | 1 |  |  | 2 |  |  | 1 | ..... | 1 |  |  |  | 1 | 1 |  | 4 |
|  |  |  | 1 |  |  | 1 |  | $\because$ | 3 | 2 | 1 |  |  |  | 1 | 1 | 1 |  |  | 1 | ${ }_{7}^{6}$ |
| 46 | 36 | 23 | 146 | 20 | 56 | 508 | 102 | 420 | 327 | 136 | 313 | 164 | 144 | 125 | 119 | 186 | 24 | 34 | 77 | 126 | 8 |
|  | 32 25 | 21 | 128 85 |  |  | 463 277 |  |  |  |  |  |  |  |  |  |  | 17 | 25 | 67 | 95 | 9 |
| $\begin{array}{r} \\ \hline \quad 37 \\ \hline\end{array}$ | 25 3 | 18 1 | 85 14 | ${ }_{3}$ | 35 5 | $\begin{array}{r}277 \\ 67 \\ \hline\end{array}$ | 58 9 | $\begin{array}{r}244 \\ 47 \\ \hline\end{array}$ | $\begin{array}{r}156 \\ 47 \\ \hline\end{array}$ | ${ }_{19} 19$ | $\begin{array}{r}137 \\ 50 \\ \hline\end{array}$ | $\begin{array}{r}78 \\ 24 \\ \hline\end{array}$ | 87 9 | 59 15 | 64 12 | 52 | 10 3 | 14 6 |  | 47 9 | 10 |
|  |  | 1 | 5 |  | 1 | 25 | 3 | 15 | 17 | 9 | 11 | 7 | 6 | 4 | 1 |  |  |  | 3 | 6 | 12 |
|  |  |  | 1 |  | 1 | 4 | 1 | 1 | 5 | 1 | 6 | 3 | 2 | 3 | 1 | 11 |  |  | 3 | 6 | 13 |
|  | 2 | 1 | 4 |  | $\begin{array}{r}1 \\ \hline\end{array}$ | 19 | 1 | 5 | 3 2 | 2 | 10 | 4 | 2 | 5 | 2 | ${ }^{6}$ | 1 | 1 | 1 | 3 | 14 |
|  |  |  | 2 |  | 2 | 4 |  | 2 | 2 |  | 1 | ..... | 1 |  |  | 2 |  |  | 1 | 1 | 15 16 |
|  |  |  | 5 | $\cdots$ | 1 | 11 | ${ }^{3}$ | 11 | 17 | 13 | 21 |  | 2 | 2 | 9 |  |  | 2 | 4 | 7 | 17 |
|  |  |  |  |  |  | $\stackrel{29}{29}$ |  |  |  | 4 |  |  | 4 | 5 | 9 |  |  | 2 | 4 | 6 | 18 |
|  |  |  |  |  |  | 1 |  | 3 | 1 | 1 |  |  | 1 |  |  | 1 | 1 |  | 1 | 1 | 20 |
|  |  |  | 1 |  | 2 | 7 | 3 | ${ }^{6}$ | 3 <br> 4 | 2 | 4 |  | 2 | $\cdots$ |  | 1 | 2 |  |  | 1 | 21 22 |
|  |  |  | 5 |  | 1 | 14 | 1 | 4 | 7 | 1 | 5 | 1 | 3 | 1 | 2 | 3 |  |  | 4 | 2 | 22 23 |
| 7 |  | 2 | 18 |  |  | 43 | 14 | 63 | 52 | 31 | 51 | 30 | 22 | 28 | 18 | 42 | 7 | 9 | 10 |  |  |
|  |  |  | 6 |  | 4 | 20 | 5 | ${ }_{20}^{23}$ | 20 | 10 | 18 | 15 | 12 | 17 | 12 | 18 | $\stackrel{2}{4}$ | 4 | 5 | 11 | 25 |
|  | 1 | $\cdots$ | 7 | 1 |  | 10 | 1 | 14 | 15 | $\begin{array}{r}15 \\ 2 \\ \hline\end{array}$ | 12 |  | 4 | $\begin{aligned} & 4 \\ & 4 \end{aligned}$ | $\stackrel{2}{2}$ | $\begin{aligned} & 8 \\ & 8 \end{aligned}$ |  | $\cdots$ | $\stackrel{2}{2}$ | 10 | 28 27 |
| 4 | 1 |  | 4 |  |  | 2 | 1 | 3 | 5 | 3 | 4 | - |  | 1 | 2 | 7 | ..... | 2 |  | 2 | ${ }^{28}$ |
| $\cdots$ |  |  | i | 1 |  | 4 | 3 | 3 | 3 |  | 7 |  | 2 | 1 |  | 1 | . | 2 | 1 | 2 | 30 |
|  |  |  |  |  |  | 2 |  |  |  | 1 | 1 |  |  |  |  |  |  |  |  | 3 | 31 |
| 12 | 18 | 4 | 92 | 15 | 30. | 553 | 60 | 256 | 260 | 208 | 343 | 149 | 93 | 105 | 96 | 217 | 19 | 12 | 69 | 103 | 32 |
|  | 1 |  | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 1 | 5 |  | 1 | 8 | 6 <br> 5 | 8 | 5 | 1 | 1 | $\stackrel{2}{3}$ | 4 |  |  | 2 | 3 | 34 35 |
|  | 1 |  |  |  |  | 2 |  |  | 2 |  | 1 |  |  | 1 |  | 1 |  |  |  |  | ${ }_{36}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 86 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5 3 3 | 10 6 | 2 1 | 45 20 | $\begin{array}{r}8 \\ 3 \\ \hline\end{array}$ | 13 12 | 299 146 | 32 <br> 17 | $\begin{array}{r}123 \\ 66 \\ \hline\end{array}$ | 97 98 | 94 79 7 | 174 89 8 | 59 43 4 | - 34 | 35 39 39 | 59 21 | $\begin{array}{r}145 \\ 36 \\ \hline 1\end{array}$ | 9 8 8 | $\begin{array}{r}5 \\ \hline\end{array}$ | 32 18 | 50 37 | 39 40 |
| 3 |  |  | 13 | 3 | 2 | $\begin{array}{r}19 \\ 34 \\ \hline\end{array}$ | 4 | 60 30 | ${ }^{98}$ | 10 | 89 40 | $\stackrel{43}{22}$ | 20 |  |  |  |  |  |  | ${ }_{6} 6$ | ${ }_{41}$ |
|  | . |  | 2 |  |  | 1 | 1 | 4 | 2 | 5 | 2 |  | 1 |  |  |  |  |  |  |  | 42 |
|  |  | $\cdots$ | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 1 |  | 4 |  | 1 | 44 | 1 | 22 | 17 | 4 | 16 | 10 | 4 | 4 | 2 | 4 |  | 2 | 2 | 2 | 45 |
|  |  |  |  |  |  | 1 |  |  | i |  | $\underline{1}$ | 1 | 1 | 1 |  |  |  |  | 1 | 1 | 46 47 |
|  |  |  |  |  |  | 1 |  |  | 1 |  |  | 1 | 1 |  | 1 | $i$ |  |  |  |  | 48 |
|  |  |  | 2 |  |  | 7 |  |  | 1 | 1 | 1 | 2 |  | 1 |  |  |  |  |  |  | 49 |
|  |  |  | 2 |  |  | 7 |  | 1 | 1 | 1 |  | 2 |  | , |  |  |  |  |  |  | 50 |
|  |  |  |  |  |  |  |  |  |  |  |  | 3 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 2 |  |  | 9 | 1 | 11 |  |  | 2 | 3 | 2 | 1 | 1 | 5 | 1 | 1 | 1 | 2 | 53 |
| 103 | 40 | 33 | 273 | 64 | 82 | 1,110 | 149 | 690 | 509 | 264 | 579 | 309 | 302 | 236 | 202 | 417 | 56 | 58 | 120 | 209 | 54 |
| 82 | 25 | 25 | 205 |  | 69 | 818 | 115 |  |  |  |  |  |  |  | 141 | 304 | 31 | 39 | 89 | 151 | ${ }_{58}^{55}$ |
|  | 2 |  | 28 |  |  | 147 |  | $\begin{array}{r}5 \\ 46 \\ \hline\end{array}$ | $\begin{array}{r}7 \\ 3 \\ \hline\end{array}$ | 3 <br> 8 | 1 30 | ${ }_{22}^{1}$ | ${ }_{21}^{4}$ | $\begin{array}{r}\text { b } \\ 12 \\ \hline\end{array}$ | $\begin{array}{r}2 \\ 18 \\ \hline\end{array}$ |  | 4 | 3 | 2 |  | 56 57 |
|  | 3 | 1 | 17 |  |  | 47 | 10 | 47 | 27 | 14 | 77 | 21 | 31 | 33 | 15 | 39 | 13 | 7 | 7 | 17 | 58 |
|  | 2 | 3 | 10 | 5 | 1 | 18 |  | 16 | 12 | 18 | 16 | 8 | 4 | 6 | 3 | 22 | 1 |  | 3 | 8 | 59 |
|  |  |  | 2 |  | 1 | 12 |  |  | 4 |  | 5 |  |  | 2 | 3 | $\cdots$ |  |  |  |  | 61 |
|  |  |  | 2 |  |  | 1 |  |  | 2 |  | 3 | $\cdots$ |  | 1 | 2 | 2 |  | 1 | 1 |  | ${ }_{63}^{62}$ |
|  |  |  | 1 |  |  | 2 |  |  | 4 |  | 1 | 2 |  | 2 |  | 2 | 1 |  | 2 | 2 | 64 |
|  | 6 | 1 | 7 | 1 | 3 | 54 | 4 | 32 | 16 | 16 | 38 | 24 | 23 | 18 | 18 | 30 | 6 | 8 | 9 | 14 | ${ }_{68}$ |
| 4 | 4 | 2 | 49 | 13 | 13 | 165 | 12 | 80 | 51 | 23 | 67 | 33 | 29 | 29 | 16 | 42 |  | 3 | 12 | 29 | 67 |

Table 13.-DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSI


FIED ACCORDING TO REPORTED CAUSE OF DEAFNESS, BY DIVISIONS AND STATES: 1910-Continued.


TABLE 14.-DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED WHOLE:

|  | reported cause of deafness. | deaf and dumb population for whom spectal schedules were RETURNED: 1910. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | All classes. |  |  | White. |  |  |
|  |  | Both sexes. | Male. | Female. | Total. |  |  |
|  |  |  |  |  | Both sexes. | Male. | Female. |
| 1 | All causes. | 19,153 | 10,507 | 8,646 | 18,016 | 9,888 | 8,128 |
| 2 | Causes affecting the external ear | 64 | 39 | 25 | 58 | 36 | 22 |
| 3 4 4 5 7 7 |  | 16 8 17 17 6 | 11 5 12 9 9 2 | 5 3 3 5 8 4 | 13 7 15 17 6 | 8 5 12 9 2 | 5 2 2 3 8 4 |
|  | Causes affecting the middle ear | 4,507 | 2,331 | 2,176 | 4,375 | 2,262 | 2,113 |
| 9 | Causes producing suppurative condition. | 3,708 | 1,925 | 1,783 | 3,613 | 1,874 | 1,739 |
| 10 | Scarlet fever.. | 2,005 | 1,057 | 948 | 1,971 | 1,039 | 932 |
| 11 | Measies... | , 525 | 1,262 | 263 | ${ }^{5} 508$ | ${ }^{252}$ | 256 |
| 12 | Diphtheria......... | 166 | 82 | 84 | 164 | 80 | 84 |
| 13 | Infuenza (grippe) | 87 | 44 | 43 40 | 83 | 43 | 40 37 |
| 15 | Preumonia......... | 102 | 62 11 | 40 12 | 96 22 | 59 10 | 37 12 |
| 16 | Smallpox. | 22 | 11 | 11 | 19 | 9 | 10 |
| 17 | Abscess in the head.. | 349 | 183 | 166 | 332 | 174 | 158 |
| 18 | Disease of the ear. . | 237 | 119 | 118 | 230 | 115 | 115 |
| 19 | Bronchitis........ | 12 | 7 | 5 | 11 | 6 | 5 |
| 20 | Tonsillitis...... | 17 | 6 | 11 | 17 | ${ }^{6}$ | ${ }_{23}^{11}$ |
| 22 | All other causes producing suppurative condition. | 34 34 | 15 | 19 | 34 | 15 | 19 |
| 23 | Combination of diseases............................ | 79 | 41 | 38 | 78 | 41 | 37 |
| 24 | Causes not producing suppurative condition. | 789 | 398 | 391 | 752 | 380 | 372 |
| 25 26 | Chooping cough. | 301 186 | 144 95 | 157 91 | 290 179 |  |  |
| 27 | Colds....... | 156 | 82 | 74 | 149 | 97 | ${ }_{72}^{88}$ |
| 28 | Scrofula. . ......... | 69 | 33 | 36 | 59 | 29 | 30 |
| $\stackrel{29}{ }$ | Diseass of the throat................... | 31 | 17 | 14 | 31 | 17 | 14 |
| 30 | All other causes not producing suppurative conditio | 46 | 27 | 19 | 44 | 26 | 18 |
| 31 | All other causes affecting the middle ear. | 10 | 8 | 2 | 10 | 8 | 2 |
| 32333434353637 | Causes affecting the internal ear. | 3,666 | 2,217 | 1,449 | 3,526 | 2,132 | 1,394 |
|  | Causes affecting the labyrinth. | ${ }^{226}$ | 143 | 83 | 200 | 128 | 74 |
|  |  | $\begin{array}{r}128 \\ 85 \\ \hline\end{array}$ | 84 58 58 | 44 33 | 109 | 70 | 39 31 |
|  | Noise and concussion........ | 12 | 6 | ${ }_{6}$ | 8 | 4 | 4 |
|  | All other causes affecting the labyrinth. | 1 | 1 |  |  | 1 |  |
| 38 | Causes affecting the auditory nerve. | 3,399 | 2,048 | 1,351 | 3,286 | 1,980 | 1,306 |
| 39 | Meningitis....................... | 1,812 | 1,070 | 1,742 | 1,731 | 1,022 | 1,709 |
| 40 | Brain fever................... | 928 | 584 | ${ }^{343}$ | ${ }_{9} 916$ | 577 | 339 |
| 41 | Typhoid fever................ | 384 | 224 | 160 | 367 | 214 | 153 |
| 4 | Congestion of the brain............ | 31 | 18 | 13 | 30 | 17 | 13 |
| 4 | Disease of the nervous system. | 4 | 2 | 2 | 4 | 2 | $2{ }^{2}$ |
| 44 | Paralysis...................... | 35 | 19 | 16 | 34 | 18 | 16 |
| 45 46 | Convulsions ........... | 174 | 109 | ${ }_{6} 6$ | 173 | 108 | 64 |
| 47 | All other causes affecting the auditory nerve. | 11 | 7 | 4 | 11 | 7 | 4 |
| 48 | Combination of diseases..... | 14 | 9 | 5 | 13 | 8 | 5 |
| 49 | Brain center for hearing affected. | 21 | 16 | 5 | 20 | 16 | 4 |
| 50 | Hydrocephalus. | 19 | 15 | 4 | 19 | 15 | 4 |
| 51 | Epilepsy.................... | 2 | 1 | 1 | 1 | 1 |  |
| 52 | All other causes affecting the internal ear. | 20 | 10 | 10 | 20 | 10 | 10 |
| 53 | Combination of different classes of causes.. | 55 | 27 | 28 | 53 | 25 | 28 |
| 54 | Unclassifiable causes. | 9,869 | 5,351 | 4,518 | 9,085 | 4,935 | 4,150 |
| 55 | Congenital................ | 7,533 | 4,028 | 3,505 | 6,901 | 3,689 |  |
| 56 57 |  |  | 36 |  |  |  |  |
| 57 | Falls and blows.. | 587 | 326 | 261 | 558 | 314 | 244 |
| 58 | Sickness......... | 609 | 352 | 257 | 559 | 327 | 232 |
| 59 | Fever........... | 383 | 223 | 180 | 343 | 201 | 142 |
| 60 | Hereditary causes. | 4 | 2 | 2 | 4 | 2 | 2 |
| 61 | Accident.......... | 57 | 38 | 19 | 54 | 36 | 18 |
| 62 | Medicine........ | 36 | ${ }^{22}$ | 14 | 29 | 17 | 12 |
| 63 | Fright, shock, excitement. | 31 | 13 | 18 | 29 | 13 | 16 |
| 64 | Dlarrhea and cholera infantum. | 35 | 14 | 21 | 35 | 14 | ${ }_{21}^{16}$ |
| ${ }_{68}^{65}$ | Operation................... | 12 | 6 | 6 | 12 | 6 | 6 |
| 66 | All other unclassifiable causes................. | 522 | 291 | 231 | 501 | 280 | 221 |
| 67 | Cause unknown or not reported. | 992 | 542 | 450 | 919 | 498 | 421 |

according to race, nativity, sex, and reported cause of deafness, for the united states as a 1910.


TABLE 15.-DEAF AND DUMB POPULATION FOR WHOM SPEGIAL SCHEDULES WERE RETURNED, CLASSIFIED AGCORDINGTO AGE WHEN HEARING WAS LOST AND REPORTED CAUSE OF DEAFNESS, FOR THE UNITED STATES AS A WHOLE: 1910.


TABLE 16.-DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO RELATIONSHIP OF PARENTS, STATUS AS TO EXISTENCE OF BROTHERS AND SISTERS AND CHILDREN, AND STATUS OF PARENTS, BROTHERS AND SISTERS, AND CHILDREN AS TO HEARING, FOR THE UNITED STATES AS A WHOLE: 1910.


TABLE 16.-DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO RELATIONSHIP OF PARENTS, STATUS AS TO EXISTENCE OF BROTHERS AND SISTERS AND CHILDREN, AND STATUS OF PARENTS, BROTHERS AND SISTERS, AND CHILDREN AS TO HEARING, FOR THE UNITED STATES AS A WHOLE: 1910-Continued.


TABLE 16.-DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO RELATIONSHIP OF PARENTS, STATUS AS TO EXISTENCE OF BROTHERS AND SISTERS AND CHILDREN, AND STATUS OF PARENTS, BROTHERS AND SISTERS, AND CHILDREN AS TO HEARING, FOR THE UNITED STATES AS A WHOLE: 1910-Continued.


1 Includes the small number whose age was not reported.

TABLE 16.-DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO RELATIONSHIP OF PARENTS, STATUS AS TO EXISTENCE OF BROTHERS AND SISTERS AND CHILDREN, AND STATUS OF PARENTS, BROTHERS AND SISTERS, AND CHILDREN AS TO HEARING, FOR THE UNITED STATES AS A WHOLE: 1910-Continued.


TABLE 16.-DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, GLASSIFIED ACCORDING TO RELATIONSHIP OF PARENTS, STATUS AS TO EXISTENCE OF BROTHERS AND SISTERS AND CHILDREN, AND STATUS OF PARENTS, BROTHERS AND SISTERS, AND CHILDREN AS TO HEARING, FOR THE UNITED STATES AS A WHOLE: 1910-Continued.


Table 16.-DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO RELATIONSHIP OF PARENTS, STATUS AS TO EXISTENCE OF BROTHERS AND SISTERS AND CHILDREN, AND STATUS OF PARENTS, BROTHERS AND SISTERS, AND CHILDREN AS TO HEARING, FOR THE UNITED STATES AS A WHOLE: 1910-Continued.

| age group, marital condition, and status as to brothers and sisters and children. | deaf and dumb population for whom spegai schedules were returned: 1910. |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Parents not first cousins. |  |  |  |  |  |  |
|  | Total. | $\underset{\substack{\text { Barents } \\ \text { peported }}}{\text { Both }}$ reporteaf. | One parent only reported as deaf. |  |  | Neither $\underset{\text { parent }}{\text { reported }}$ as deaf. | Not reporting as to hearing of parents. |
|  |  |  | Total. | $\begin{gathered} \text { Father } \\ \text { only } \\ \text { reportid } \\ \text { as deaf. } \end{gathered}$ | $\begin{aligned} & \text { Mother } \\ & \text { only } \\ & \text { reported } \\ & \text { as deaf. } \end{aligned}$ |  |  |
| 15 years of age or over 1 - Continued. Single-Continued. |  |  |  |  |  |  |  |
| Reporting no brothers or sisters... | 313 | 8 | 3 | 1 | 2 | 299 |  |
| Reporting children - Reporting no deat childiren | 9 9 |  |  |  |  | 8 | 1 |
| Not reporting children......... | 304 | 8 | 3 | 1 | 2 | 291 | 1 |
| Not reporting as to existence of brothers or sisters.... Not reporting children. | 79 79 | 1 |  |  |  | 74 74 | 4 |
| Married, widowed, or divorced.. | 4,821 | 95 | 41 | 19 | 22 | 4,680 | 5 |
| Reporting children. | 3,821 | 77 | 33 | 17 | 16 | 3, 707 |  |
| Reporting deaf children..... | 3258 | 15 | 9 | 4 | 5 | , 232 | 1 |
| Reporting no dear children......i...... | 3,529 | 60 | 23 | 12 | 11 | 3,443 | 2 |
| Not reporting as to hearing of children. <br> Not reporting children. | $\begin{array}{r} 36 \\ 1,000 \end{array}$ | 18 | $\stackrel{1}{8}$ | 1 | $\stackrel{\square}{6}$ | 32 973 | 1 |
| Reporting brothers or sisters..... | 4,585 |  | 37 | 19 | 18 | 4,454 |  |
| Reporting deaf brothers or sisters. | 1,162 | 69 | 24 | 12 | 12 | 1,067 | 2 |
| Reporting children.: | 1,947 | 58 | 19 | 10 | 9 | 1,868 | 2 |
| Reporting deaf children... | 126 | 12 | 7 | 4 | 3 | 106 | 1 |
| Reporting no deal children. Not reporting as to hearing of childre. | 809 | 45 | 12 | 6 | 6 | 751 | 1 |
| Not reporting children..................... | 215 | 11 | 5 | 2 | 3 | 199 | ........... |
| Reporting no deaf brothers or sisters. . | 3,415 | 20 | 13 |  |  | 3,381 | 1 |
| Reporting children. .-........ | 2,705 | 14 | 10 | 7 | 3 | 2,681 |  |
| Reporting deaf children.......... | 121 | 2 | 1 |  | 1 | 118 |  |
| Reporting no deaf children. Not reporting as to hearing of childiren. | 2,563 21 | 11 | 8 | 6 | 2 | 2,544 |  |
| Not reporting children......................... | ${ }_{710}^{21}$ | 1 6 | 1 |  | 3 | 700 | 1 |
| Not reporting as to hearing of brothers or sisters. | 8 |  |  |  |  |  |  |
| Reporting children....................... | 5 |  |  |  |  | 3 | 2 |
| Reporting no deaf chilaren............. | 4 |  |  |  |  | 3 | 1 |
| Not reporting as to hearing of children. Not reporting children. | $\frac{1}{3}$ |  |  |  |  | 3 |  |
| Reporting no brothers or sisters... |  |  |  |  |  |  |  |
| Reporting Reporting children....... | 226 158 | 5 4 4 | 4 |  | 4 |  | ............ |
| Reporting deaf children..... | 10 | 1 | ${ }_{1}^{4}$ | ........... | 4 | 150 |  |
| Reporting no deaf children. | 146 | 3 | 3 |  | 3 | 140 | -.. |
| Not reporting as to hearing of children. | 68 |  |  |  |  | 2 |  |
| Notror |  | 1 |  |  |  | 67 |  |
| Not reporting as to existence of brothers or sisters.. | 10 | 1 |  |  |  |  |  |
|  |  | 1 |  |  |  | 5 |  |
| Reporting no deaf children. | 6 | 1 |  |  |  | 5 | … |
| Not reporting children. | 4 | ....... |  |  |  | 4 |  |
| Marital condition not reported. | 22 |  |  |  |  | 22 |  |
| Reporting children |  |  |  |  |  |  |  |
| Reporting no dear children. | 2 |  |  |  |  |  | ........... |
| Not reporting children.......... | 20 |  |  |  |  | 20 |  |
| Reporting brothers or sisters. | 22 |  |  |  |  |  |  |
| Reporting deaf brothers or sisters Not reporting children. | 2 |  |  |  |  | 2 |  |
|  |  |  |  |  |  |  | ............ |
| Reporting no deaf brothers or sisters. | 20 |  |  |  |  | 20 |  |
| Reporting children..ä ${ }_{\text {Reporting }}$ no deaf children... | 2 |  |  |  |  | 2 | ............. |
| Not reporting children.......... | 18 |  |  |  |  | ${ }_{1}^{2}$ |  |
|  |  |  |  |  |  |  |  |

${ }^{2}$ Includes the small namber whose age was not reported.

Table 16.-DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO RELATIONSHIP OF PARENTS, STATUS AS TO EXISTENCE OF BROTHERS AND 'SISTERS AND CHILDREN, AND STATUS OF PARENTS, BROTHERS AND SISTERS, AND CHILDREN AS TO HEARING, FOR THE UNITED STATES AS A WHOLE: 1910-Continued.


TABLE I6.-DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO RELATIONSHIP OF PARENTS, STATUS AS TO EXISTENCE OF BROTHERS AND SISTERS AND GHILDREN, AND STATUS OF PARENTS, BROTHERS AND SISTERS, AND CHILDREN AS TO HEARING, FOR THE UNITED STATES AS A WHOLE: 1910-Continued.


1 Includes the small number whose age was not reported.

TABLE 17.-DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO RACE, NATIVITY, SEX, RELATIONSHIP OF PARENTS, AND STATUS OF PARENTS AS TO HEARING, FOR THE UNITED STATES AS A WHOLE: 1910.


TABLE 17.-DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO RACE, NATIVITY, SEX, RELATIONSHIP OF PARENTS, AND STATUS OF PARENTS AS TO HEARING, FOR THE UNITED STATES AS A WHOLE: 1910-Continued.


Table 18.-DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO AGE WHEN HEARING WAS LOST, RELATIONSHIP OF PARENTS, AND STATUS OF PARENTS AS TO HEARING, FOR THE UNITED STATES AS A WHOLE: 1910.

| STATUS AS TO HEARING AND RELATIONSHIP | deaf and dumd population for whom special scredules were returned: 1910. |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total. | Number whose deafness was- |  |  |  |  |  |  |  |  |
|  |  | Congenital. | Acquired. ${ }^{1}$ |  |  |  |  |  |  |  |
|  |  |  | Total. | $\begin{gathered} \text { At less } \\ \text { than } 1 \text { year } \\ \text { of age. } \end{gathered}$ | At 1 year of age. | $\begin{array}{\|c} \text { At } 2 \text { to } 4 \\ \text { years of age. } \end{array}$ | $\begin{gathered} \text { At } 5 \text { to } 9 \\ \text { years of age. } \end{gathered}$ | At10years of age or over. | Ininfancy (exact age not reported). | At agenot reported. |
| Total.. | 19,153 | 7,533 | 11,620 | 1,628 | 2,375 | 5,137 | 1,594 | 140 | 114 | 632 |
| Both parents reported as deaf. One parent only reported as deaf Father only reported as deaf <br> Mother only reported as deaf Neither parent reported as deaf. Not reporting as to hearing of parents | $\begin{array}{r} 289 \\ 131 \\ 71 \\ 60 \\ 18,913 \\ 320 \end{array}$ | $\begin{array}{r} 207 \\ 80 \\ 44 \\ 7,120 \\ 7,126 \end{array}$ | $\begin{array}{r} 82 \\ 51 \\ 27 \\ 24 \\ 11,243 \\ 194 \end{array}$ | 18 11 7 4 4 1,594 5 | $\begin{array}{r} 10 \\ 9 \\ 4 \\ 25 \\ 2,351 \\ 5 \end{array}$ | $\begin{array}{r} 37 \\ 18 \\ 8 \\ 10 \\ 5,058 \\ 24 \end{array}$ | $\begin{array}{r} 5 \\ 10 \\ 6 \\ 4 \\ 1,567 \\ 12 \end{array}$ | 1 <br> 1 <br> 1 <br> $\cdots \cdots \cdots$ <br> 132 <br> 6 |  | $\begin{array}{r}10 \\ 2 \\ 1 \\ 1 \\ 479 \\ 141 \\ \hline\end{array}$ |
| Parents first cousins. | $\begin{array}{r} 883 \\ 2 \\ 9 \\ 6 \\ 3 \\ 865 \\ 8 \\ 7 \end{array}$ | 553264425396 | 330 | 56 | ${ }^{82}$ | 133 | + 31 | - ${ }^{2}$ | - ${ }^{3}$ | - 23 |
| Both parents reported as deal.......... |  |  |  |  |  |  |  |  |  |  |
| One parent only reported as deaf........ <br> Father only reported as deaf. <br> Mother only reported as deaf |  |  | 3 2 1 |  | 1 | 1 |  |  |  | 1 |
| Mother only reported as deaf Neither parent reported as deaf. |  |  | 1 326 | 55 | 81 | 132 | 31 | 2 | 3 | 22 |
| Not reporting as to hearing of parents. |  |  |  | $\begin{array}{r}1,549 \\ 18 \\ 10 \\ 70 \\ 7 \\ 1,518 \\ 1,5 \\ \hline\end{array}$ |  |  |  |  |  |  |
| Parents not first cousins. $\qquad$ Both parents reported as deaf. $\square$ | $\begin{array}{r} 17,418 \\ 281 \\ 113 \\ 62 \\ 51 \\ 16,994 \\ 30 \end{array}$ | $\begin{array}{r} 6,595 \\ 200 \\ 68 \\ 37 \\ 31 \\ 6,318 \\ 9 \end{array}$ | $\begin{array}{r} 10,823 \\ 81 \\ 45 \\ 25 \\ 20 \\ 10,678 \\ 21 \end{array}$ |  | $\begin{array}{r} 2,248 \\ 10 \\ 8 \\ 4 \\ 4,227 \\ 2,23 \end{array}$ | $\begin{array}{r} 4,882 \\ 37 \\ 16 \\ 7 \\ 9 \\ 4,823 \\ \hline \end{array}$ | $\begin{array}{r} 1,503 \\ 5 \\ 9 \\ 6 \\ 3 \\ 1,489 \\ \ldots \ldots \ldots \end{array}$ |  | 1061 |  |
| One parent only reported as deaf......... |  |  |  |  |  |  |  |  |  |  |
| Father only reported as deaf. Mother only reported as deaf |  |  |  |  |  |  |  |  |  |  |
| Neither parent reported as deaf. |  |  |  |  |  |  |  |  | 105 | 404 |
| Not reporting as to hearing of parents -: |  |  |  |  |  |  |  |  | \% $\begin{array}{r}5 \\ \hline . . . . . . .\end{array}$ |  |
| Not reporting as to relationship of parents. Both parents reported as deaf. | $\begin{array}{r} 852 \\ 6 \\ 9 \\ 3 \\ 6 \\ 554 \\ 283 \end{array}$ | 3855633383111 | 46713 | 23 | 45 | 122 | 60 | [ $\begin{array}{r}25 \\ 1\end{array}$ |  | 187 |
| Both parents reported as deaf One parent only reported as deai......... |  |  |  | $\cdots$ |  | 1 | 1 |  |  |  |
| Father only reported as deaf |  |  |  | $\cdots$ |  | 1 |  |  |  |  |
| Mother only reported as deaf Neither parent reported as deaf |  |  | 291 | 21 |  | 103 |  |  |  |  |
| Neither parent reported as deaf. Not reporting as to hearing of parents.. |  |  | ${ }_{172}^{291}$ | $\stackrel{21}{1}$ | 43 2 | 103 18 | 12 | 20 4 | ${ }_{1}^{4}$ | $\begin{array}{r}53 \\ 134 \\ \hline\end{array}$ |

TABLE 19.-DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO REPORTED CAUSE OF DEAFNESS, RELATIONSHIP OF PARENTS, AND STATUS OF PARENTS AS TO HEARING, FOR THE UNITED STATES AS A WHOLE: 1910.


TABLE 19.-DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO REPORTED CAUSE OF DEAFNESS, RELATIONSHIP OF PARENTS, AND STATUS OF PARENTS AS TO HEARING, FOR THE UNITED STATES AS A WHOLE: 1910—Continued.


TABLE 19.-DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO REPORTED CAUSE OF DEAFNESS, RELATIONSHIP OF PARENTS, AND STATUS OF PARENTS AS TO HEARING, FOR THE UNITED STATES AS A WHOLE: 1910-Continued.


Table 19.-DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED AOCORDING TO REPORTED CAUSE OF DEAFNESS, RELATIONSHIP OF PARENTS, AND STATUS OF PARENTS AS TO HEARING, FOR THE UNITED STATES AS A WHOLE: 1910-Continued.


TABLE 20.-DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO REPORTED CAUSE OF DEAFNESS, STATUS AS TO EXISTENCE OF BROTHERS AND SISTERS, AND STATUS OF BROTHERS AND SISTERS AS TO HEARING, FOR THE UNITED STATES AS A WHOLE: 1910.

|  |
| ---: | :--- |

TABLE 21.-DEAF AND DUMB POPULATION FOR WHOM SPECIAL SCHEDULES WERE RETURNED REPORTING CHILDREN, CLASSIFIED ACCORDING TO REPORTED CAUSE OF DEAFNESS AND STATUS OF CHILDREN AS TO HEARING, FOR THE UNITED STATES AS A WHOLE: 1910.

|  |
| ---: | :--- |

Table 22.-DEAF AND DUMB POPULATION 5 YEARS OF AGE OR OVER FOR WHOM SPECLAL SCHEDULES

${ }^{1}$ Includes the small number whose age was not reported.

WERE RETURNED, GLASSIFIED ACCORDING TO EDUCATION, BY DIVISIONS AND STATES: 1910.


${ }^{2}$ Includes the small number whose age was not reported.

RETURNED, CLASSIFIED ACCORDING TO RACE, NATIVITY, SEX, AGE AT ENUMERATION, AND EDUCATION, AS A WHOLE: 1910.



RETURNED, CLASSIFIED ACCORDING TO RACE, NATIVITY, SEX, AGE AT ENUMERATION, AND EDUCATION, AS A WHOLE: 1910 -Continued.


Table 24.-DEAF AND DUMB POPULATION 5 YEARS OF AGE OR OVER FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO AGE WHEN HEARING WAS LOST AND EDUCATION, FOR THE UNITED STATES AS A WHOLE: 1910.

| education. | deaf and dumb population 5 years of age or over for whom speclal schedules were RETURNED: 1910. 1 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total. | Congenital. | Number whose deafness was- |  |  |  |  |
|  |  |  | Acquired. ${ }^{2}$ |  |  |  |  |
|  |  |  | Total. | $\begin{aligned} & \text { At less than } \\ & 5 \text { years of } \\ & \text { age. } 3 \end{aligned}$ | At 5 to 9 years of age. | At 10 years of age or over. | At age not reported. |
| Total. | 18,850 | 7,346 | 11,504 | 9,147 | 1,594 | 140 | 623 |
| Having attended school. | 15,736 | 5,861 | 9,875 | 8,079 | 1,303 | 67 | 426 |
| Having attended special school for the deaf Having attended other schools also. | 15,388 ${ }^{601}$ | 5,757 | 9,631 456 | $\begin{array}{r}7,935 \\ \hline 265 \\ \hline 183\end{array}$ | 1,253 |  | 400 18 |
| Common school only ........... | 430 | 89 | 341 | 184 | 141 | 7 | 9 |
| High school or academy. | 72 | 22 | 50 | 33 | 14 | ............ | 3 |
| University or colloge............... | 34 44 | -98898980 | 25 26 | 20 19 | 5 |  | 5 |
| Schools of character not reported. | 21 |  | 14 |  |  | ...... | 1 |
| Having attended no other school. ..... | 14,787 | 5,612 | 9,175 | 7,670 | 1,087 | ${ }_{36}^{36}$ | 382 |
| Reporting no other instruction ......... Reporting private instruction at home. | 14,667 120 | 5,578 | 9,089 86 | 7,601 69 | 1,072 | 36 | 380 2 |
| Not having attended special school for ine deaf Having attended- | 348 | 104 | 244 | 144 | 50 | 24 | 26 |
| Common school only .................... | 237 | 61 | 176 | 109 | 42 | 17 | 8 |
| High school or academy . .......... | 24 | 7 | 17 | 14 | 3 |  |  |
| Schools of miscellaneous character. Schools of character not reported.. | 70 17 | 3 | 38 13 | 18 3 | 3 2 | - 7 | 17 1 |
| Not having attended school. | 2,862 | 1,406 | 1,456 | 996 | 269 | 67 | 124 |
| Reporting private instruction at home. Reporting no instruction. | $\begin{array}{r} 112 \\ 2,750 \end{array}$ | 1,363 | $\begin{array}{r}1,389 \\ \hline 69\end{array}$ | $\begin{array}{r}57 \\ 939 \\ \hline\end{array}$ | 11 258 | 67 | 123 |
| Not reporting as to education. | 252 | 79 | 173 | 72 | 22 | 6 | 73 |

${ }^{1}$ Tncludes the small number whose age at enumeration was not reported.
2 Includes those for whom the age when hearing was lost was not reported.
: Includes those reported as having lost their hearing in infancy but without statement as to the exact age.


1 Includes the small number whose age was not reported.

WERE RETURNED, CLASSIFIED ACCORDING TO ABILITY TO READ LIPS AND MEANS OF COMMUNICATION, BY STATES: 1910


Table 26.-DEAF aND DUMB POPULATION 10 YEARS OF AGE OR OVER FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO RACE, NATIVITY, SEX, ABILITY TO READ LIPS, AND MEANS OF COMMUNICATTION, FOR THE UNITED STATES AS A' WHOLE: 1910.


[^28]TABLE 27.-DEAF AND DUMB POPULATION 10 YEARS OF AGE OR OVER FOR WHOM SPECIAL SCEEDULES WERE RETURNED, CLASSIFIED ACCORDING TO ABILITY TO READ LIPS, MEANS OF COMMUNICATION, AND AGE WHEN HEARING WAS LOST, FOR THE UNITED STATES AS A WHOLE: 1910.

| ablity to read lips and means of communication. | deaf and dumb population 10 years of age or over for whom special schedules WERE RETURNED: $1910 .{ }^{1}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total. | Congenital. | Number whose deafness was- |  |  |  |  |
|  |  |  | Acquired. ${ }^{2}$ |  |  |  |  |
|  |  |  | Total. | At less than 5 years of age. ${ }^{8}$ | At 5 to 9 years of age. | At 10 years of age or over. | At age not reported. |
| Total <br> Able to read lips. <br> Not able to read lips. <br> Not reporting as to ability to read lips. | 17,000 | 6,466 | 10,534 | 8,305 | 1,543 | 140 | 546 |
|  | $\begin{array}{r} 5,457 \\ 11,154 \\ 389 \end{array}$ | $\begin{array}{r} 1,796 \\ 4,498 \\ 172 \end{array}$ | $\begin{aligned} & 3,661 \\ & 6,656 \\ & 217 \end{aligned}$ | $\begin{array}{r} 2,699 \\ 5,453 \\ , 153 \end{array}$ | $\begin{array}{r} 759 \\ 764 \\ 20 \end{array}$ | $\begin{array}{r} 34 \\ 102 \\ 4 \end{array}$ | $\begin{aligned} & 169 \\ & 337 \end{aligned}$ |
|  |  |  |  |  |  |  |  |
|  | 16,367 | 6,190 | 10,177 | 8,098 | 1,480 | 126 | 473 |
|  | 4,057 | 1,193 | 2,864 | 2,091 | 627 | 9 | 137 |
|  | $2,880$ | 834 | 2,046 | 1,539 | 433 | 33 | 715 |
|  | $\begin{array}{r} 154 \\ 100 \end{array}$ | 4147 | 2,113 | 1, 81 | 24 |  |  |
|  |  |  | 6359 | 53   <br> 45 9 $\ldots \ldots$. |  |  | 1 <br> 4 |
|  | 84 | 25135 |  |  |  |  |  |  |  |
|  | 463 |  | 328 | 226 | 65 - ${ }^{\text {c- }}$ |  | ${ }^{\mathbf{4}}$ |
|  | 31 | 9 | 22 | 18 | 4 |  | $\begin{array}{r} 1 \\ 9 \\ 10 \end{array}$ |
|  | 53 | 20 | 33 | 22 | 10 |  |  |
|  | 127 | 39 | 88 | 47 | 30 | 2 |  |
|  | 165 | 53 | 112 | 60 | 42 |  |  |
| Not using speech as a means of communication.... Reporting means of communication as- | 12,310 | 4,997 | 7,313 | 6,007 | 853 | 117 | 336 |
| Writing, finger spelling, and sign language. | 8,273 | 3,101 | 5,172 | 4,438 | 531 | 29 | 174 |
| Writing and finger spelling. | 521 | 237106 | 284 | 233147 |  | 8 <br> 4 | 5 |
| Writing and sign language.. | 291 |  | 185 |  | 38 21 |  | 4 |
| Finger spelling and sign language | 625 | 283 | 348 | 275 | 50 | 5 | 12 |
| Writing only..................... | 218 | 86 | 132 | 85 |  |  |  |
| Finger spelling only. | 142 | 71 | 71 | 54 | 7 | 3 | 27 |
| Sign language only.- | 375 | 154 | 221 | 173 | 25 |  |  |
| Miscellaneous methods....... | 1,767 | 92138 | 84660 | 56735 | 150 | 561 | 7319 |
| Reporting no means of communication. | 98 |  |  |  |  |  |  |
| Not reporting as to means of communication. | 633 | 276 | 357 | 207 | 63 | 14 | 73 |
| Reporting themselves as able to speak. | $\begin{array}{r} 125 \\ 443 \\ 65 \end{array}$ | $\begin{array}{r} 36 \\ 217 \\ 23 \end{array}$ | 8922642 | $\begin{array}{r} 54 \\ 135 \\ 18 \end{array}$ | 25335 | 482 | 5017 |
| Reporting themselves as unable to speak. |  |  |  |  |  |  |  |
| Not reporting as to ability to speak...... |  |  |  |  |  |  |  |

${ }^{1}$ Includes the small number whose age at enumeration was not reported.
${ }^{2}$ Includes those for whom the age when hearing was lost was not reported. Includes those reported as having lost their hearing in infancy but without statement as to the exact age.

Table 28.-MALE AND FEMALE DEAF AND DUMB POPULATION 10 YEARS OF AGE OR OVER FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO RACE, NATIVITY, AND OCCUPATION, FOR THE UNITED STATES AS A WHOLE: 1910.


TABLE 28.-MALE AND FEMALE DEAF AND DUMB POPULATION 10 YEARS OF AGE OR OVER FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO RACE, NATIVITY, AND OCCUPATION, FOR THE UNITED STATES AS A WHOLE: 1910—Continued.


TABLE 28.-MALE AND FEMALE DEAF AND DUMB POPULATION 10 YEARS OF AGE OR OVER FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO RACE, NATIVITY, AND OCCUPATION, FOR THE UNITED STATES AS A WHOLE: 1910-Continued.

| OCCUPATION. | deaf and dumb population 10 years of age or over for whom speclal sciedules were returned: 1910. ${ }^{1}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male. |  |  |  |  |  |  | Female. |  |  |  |  |  |  |
|  | $\left\lvert\, \begin{gathered} \text { All } \\ \text { classes. } \end{gathered}\right.$ | White. |  |  | Colored. |  |  | classes. | White. |  |  | Colored. |  |  |
|  |  | Total. | Native. | $\begin{aligned} & \text { For- } \\ & \text { eign- } \\ & \text { born. } \end{aligned}$ | Total. | Negro. | $\begin{aligned} & \text { Other } \\ & \text { col- } \\ & \text { cred. } \end{aligned}$ |  | Total. | Native. | $\begin{gathered} \text { For- } \\ \text { eign- } \\ \text { borm } \end{gathered}$ | Total. | Negro. | $\left\lvert\, \begin{aligned} & \text { Other } \\ & \text { col- } \\ & \text { ored. } \end{aligned}\right.$ |
| In domestic and personal service. | 188 | 146 | 130 | 16 | 42 | 42 |  | 450 | 348 | 295 | 53 | 102 | 101 | 1 |
| Barbers and hairdressers. ............. Boarding and lodging house keepers. | 55 | 52 | 50 | 2 | 3 | 3 |  |  |  |  |  |  |  | -...... |
| Housekoepers and stewards. ......... | $i$ | 1 | 1 |  |  |  |  | 46 | 45 | 41 | 4 | 1 |  |  |
| Servants (not including waiters). | 46 | $\stackrel{27}{ }$ | 24 |  | 19 | 19 |  | 249 | 203 | 175 | 28 | 46 | 46 | . |
| Janitors and sextons.............................. | 30 | 28 7 | 22 6 | ${ }^{6}$ | ${ }_{6}$ | ${ }_{6}^{2}$ |  | 2 |  | 2 |  |  |  |  |
| Launderers and laundresses (not in laundries)......... | 12 2 1 | 2 | 2 |  |  |  |  | ${ }^{-123}{ }^{\text {a }}$ | 68 | 52 | 16 | 55 | 54 | i |
| Laborersin domestic and professional service. <br> All others. | 11 30 | 7 28 | ${ }^{6} 19$ | $\frac{1}{3}$ | $\stackrel{4}{8}$ | 8 |  | 22 | 22 | 17 | 5 |  |  |  |
| In occupations not peculiar to any one industry or service group. | 75 | 74 | 66 | 8 | 1 | 1 |  | 21 | 21 | 18 | 3 |  |  |  |
| Accountants, auditors, bookkeepers, and cashiers..... Clerks (other than salesmen and saleswomen). | $\begin{array}{r}6 \\ 35 \\ \hline\end{array}$ | $\begin{array}{r}6 \\ 35 \\ \hline\end{array}$ | 5 30 | 5 | .... |  | ........ | 6 9 | 6 9 | $\begin{aligned} & \hline 6 \\ & 6 \end{aligned}$ | 3 | ....... |  |  |
| Electricians and their assistants ....................... | 11 | 11 | 10 | 1 |  |  |  |  |  |  |  |  |  |  |
| Engineers and firemen (other than locomotive). <br> Allothers. | 10 | 10 12 | 110 | 1 | 1 | 1 |  | 8 | 6 | ${ }^{6}$ | , |  |  |  |
| In unclassifiable occupations. | 345 | 308 | 272 | 36 | 37 | 35 | 2 | 7 | 7 | 5 | 2 | ....... |  | ...... |
| Laborers (not otherwise specified) <br> Allothers. | 340 5 | 303 5 | 269 3 | 34 | 37 | 35 | 2 | 7 | 7 | 5 | 2 |  |  |  |
| Not gainfully employed. | 3,669 | 3,440 | 3,119 | 321 | 229 | 210 | 19 | 6,459 | 6,158 | 5,568 | 590 | 301 | 278 | 23 |
| Living on own income. <br> All others.. | $\begin{array}{r} 76 \\ 3,593 \end{array}$ | $\begin{array}{r} 73 \\ 3,367 \end{array}$ | $\begin{array}{r} 66 \\ 3,053 \end{array}$ | 7 314 | 3 226 | 209 | 2 17 | $\begin{array}{r} 64 \\ 6,395 \end{array}$ | $\begin{array}{r} 62 \\ 6,096 \end{array}$ | $\begin{array}{r} 55 \\ 5,513 \end{array}$ | 7 583 | 29 | 278 | 2 |

1 Includes the small number whose age was not reported.

Table 29.-DEAF AND DUMB POPULATION 10 YEARS OF AGE OR OVER GAINFULLY EMPLOYED FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO SEX, OCCUPATION, ABILITY FOR SELF-SUPPORT, DEPENDENCE ON OCCUPATION', AND ANNUAL EARNINGS, FOR THE UNITED STATES AS A WHOLE: 1910.


TABLE 29.-DEAF AND DUMB POPULATION 10 YEARS OF AGE OR OVER GAINFULLY EMPLOYED FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACCORDING TO SEX, OCCUPATION, ABILITY FOR SELF-SUPPORT, DEPENDENCE ON OCCUPATION, AND ANNUAL EARNINGS, FOR THE UNITED STATES AS A WHOLE: 1910-COD.


Table 29.-DEAF AND DUMB POPULATION 10 YEARS OF AGE OR OVER GAINFULLY EMPLOYED FOR WHOM SPECIAL SCHEDULES WERE RETURNED, CLASSIFIED ACOORDING TO SEX, OCCUPATION, ABILITY FOR SELF-SUPPORT, DEPENDENCE ON OCCUPATION, AND ANNUAL EARNINGS, FOR THE UNITED STATES AS A WHOLE: 1910-COn.

${ }^{1}$ Includes the small number whose age was not reported.

Table 30.-DEAF AND DUMB POPULATION 10 YEARS OF AGE OR OVER FOR WHOM SPECIAL SCHEDULES WERE EARNINGS, AND EDUCATION, BY RACE, NATIVITY,


1 Includes the small number whose age was not reported.

RETURNED, CLASSIFIED ACCORDING TO ABILITY FOR SELF-SUPPORT, DEPENDENCE ON OCCUPATION, ANNUAL AND SEX, FOR THE UNITED STATES AS A WHOLE: 1910.

| deaf and dumb population 10 tears of age or over for whom speclal schedules were returned: 1910 - -continued. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Gainfully employed-Continued. |  |  |  |  |  |  |  |  |  |  |  | Not gainfully employed. |  |  |
| Reporting annual earnings from occupation of - |  |  |  |  |  |  |  |  |  |  | Notreportingannualearningsfromoccu-pation. | Total. | $\begin{gathered} \text { Living } \\ \text { onn } \\ \text { owcome. } \end{gathered}$ | $\begin{aligned} & \text { All } \\ & \text { others. } \end{aligned}$ |
| $\begin{aligned} & \text { Less } \\ & \text { than } \\ & \$ 100 . \end{aligned}$ | ( $\begin{gathered}\$ 100 \\ \text { but less } \\ \text { than } \\ \$ 200 .\end{gathered}$ | $\begin{gathered} \$ 200 \\ \text { but loss } \\ \text { than } \\ \$ 300 . \end{gathered}$ | $\begin{gathered} \$ 300 \\ \text { butless } \\ \text { than } \\ \$ 400 . \end{gathered}$ | $\begin{gathered} \$ 400 \\ \text { but less } \\ \text { than } \\ \$ 500 . \end{gathered}$ | $\begin{gathered} \$ 5000 \\ \text { but less } \\ \text { than } \\ \$ 600 . \end{gathered}$ | $\mathbf{8 6 0 0}$ but less than $\$ 800$ | $\$ 800$ but less than \$1,000. | \$1,000 than $\$ 1,200$. | 81,200 than \$1,500. | $\begin{aligned} & \$ 1,500 \\ & \text { or } \\ & \text { over. } \end{aligned}$ |  |  |  |  |

Both Sexes.


TABLE 30.-DEAF AND DUMB POPULATION 10 YEARS OF AGE OR OVER FOR WHOM SPECIAL SCHEDULES WERE EARNINGS, AND EDUCATION, BY RACE, NATIVITY,

${ }^{1}$ Includes the small number whose age was not reported.

RETURNED, CLASSIFIED ACCORDING TO ABILITY FOR SELF-SUPPORT, DEPENDENCE ON OCCUPATION, ANNUAL AND SEX, FOR THE UNITED STATES AS A WHOLE: 1910-Continued.

| Gainfully employed-Continued. |  |  |  |  |  |  |  |  |  |  |  | Not gainfully employed. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reporting annual earnings from occupation of- |  |  |  |  |  |  |  |  |  |  | Notreportingannualearningsfromoccu-pation. |  |  |  |
| Less <br> than <br> $\$ 100$. | $\begin{gathered} \$ 100 \\ \text { but less } \\ \text { than } \\ \$ 200 . \end{gathered}$ | $\begin{aligned} & \$ 200 \\ & \text { but !ess } \\ & \text { than } \\ & \$ 300 . \end{aligned}$ | $\begin{gathered} \$ 300 \\ \text { but less } \\ \text { than } \\ \$ 400 . \end{gathered}$ | $\begin{aligned} & \$ 400 \\ & \text { butless } \\ & \text { than } \\ & \$ 500 . \end{aligned}$ | $\begin{gathered} \$ 500 \\ \text { but less } \\ \text { than } \\ \$ 600 . \end{gathered}$ | $\begin{gathered} \$ 600 \\ \text { but less } \\ \text { than } \\ \$ 800 . \end{gathered}$ | $\begin{gathered} \$ 800 \\ \text { but less } \\ \text { than } \\ \$ 1,000 . \end{gathered}$ | $\$ 1.000$ <br> but less <br> than <br> $\$ 1,200$. | $\begin{gathered} \$ 1,200 \\ \text { but less } \\ \text { than } \\ \$ 1,500 \text {. } \end{gathered}$ | $\begin{gathered} \$ 1,500 \\ \text { or } \\ \text { over. } \end{gathered}$ |  | Total. |  | All others. |

MALE.


TAble 30.-DEAF AND DUMB POPULATION 10 YEARS OF AGE OR OVER FOR WHOM SPECIAL SCHEDULES WERE EARNINGS, AND EDUCATION, BY RACE, NATIVITY,

${ }^{1}$ Includes the small number whose age was not reported.

RETURNED, CLASSIFIED ACCORDING TO ABILITY FOR SELF-SUPPORT, DEPENDENCE ON OCCUPATION, ANNUAL AND SEX, FOR THE UNITED STATES AS A WHOLE: 1910-Continued.

| Gainfully employed-Continued. |  |  |  |  |  |  |  |  |  |  |  | Not gainfully employed. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reporting annual earnings from occupation of - |  |  |  |  |  |  |  |  |  |  | Notreportingannualearningsfromoccu-pation. | Total. | $\begin{gathered} \text { Living } \\ \text { own } \\ \text { owcome. } \end{gathered}$ | $\underset{\text { others. }}{\text { All }}$ |
| $\begin{aligned} & \text { Less } \\ & \text { than } \\ & \$ 100 . \end{aligned}$ | ( $\begin{gathered}\$ 100 \\ \text { but less } \\ \text { than } \\ \$ 200 .\end{gathered}$ | $\begin{gathered} \$ 200 \\ \text { but less } \\ \text { than } \\ \$ 300 . \end{gathered}$ | $\stackrel{\$ 300}{\text { but less }}$ than $\$ 400$. | $\begin{gathered} \$ 400 \\ \text { but less } \\ \text { than } \\ \text { S500. } \end{gathered}$ | $\begin{gathered} \$ 500 \\ \text { butt less } \\ \text { than } \\ \$ 600 . \end{gathered}$ | $\begin{gathered} \$ 600 \\ \text { butt less } \\ \text { than } \\ \$ 800 . \end{gathered}$ | $\stackrel{\$ 800}{ }$ but less $\underset{\$ 1,000 .}{ }$ | \$1,000 than \$1,200. | $\$ 1,200$ but less than $\$ 1,500$. | $\begin{gathered} \$ 1,500 \\ \text { or } \\ \text { over. } \end{gathered}$ |  |  |  |  |

FEMALE.


Table 31.-POPULATION BOTH BLIND AND DEAF AND DUMB FOR WHOM SPECIAL SCHEDULES WERE RETURNED: 1910.
Blindnes
Disease........
Glaucoma.
Retinitis pigmento.........
A trophy of the optic nerve.
Cataract and atrophy of the optic nerve
Smallpox
Scarlet fever
Meningitis.
Influenza (grippe)
Accident (including sympatheticophthalmia)
Explosion of powder
Injury in blasting.
Eye knocked out
Injury from fall.
Injury from fall....................
Lack of development of nerve centers..............
Causes indefinitely or inaccurately reported.
Congenital.
Catarrh and colds.
Malaria.-
Neuralgi
Sore eyes
All other
Cause unknown
Cause unknow.
Neither parent blind or deaf.
One parent only blind or deaf..................................
Trather blind
Mother bind
One parent deaf, the other neither blind nor deal
Not reporting as to vision or hearing of parents.
78
5
4
1
3
1
1
13
CLASSIfiEd according to status as to brothers and sisters.
Reporting no brothers or sisters

Reporting no blind or deaf brothers or sist
Reporting blind or deaf brothers or sisters.
Reporting blind brothers or sisters but no deai brothers or sisters.
Reporting deaf brothers or sisters but no blind brothers or sisters..
Reporting both blind and deaf brothers or sisters
Not reporting as to vision or hearing of brothers or sisters.
Not reporting as to existence of brothers or sisters.
classified according to status as to children.
Reporting no chlldren
Reporting children-...........................
Reporting no blind or deai children
Not reporting as to vision or hearing of children
Not reporting es an

| Number. |
| :---: |
| classification. | Number

Classified according to status of parents as to defect.
${ }^{2}$ Includes those for whom the age when hearing was lost was not reported.

1 Includes those for whom the age when vision was lost was not reported.

## SUMMARY OF STATE LAWS RELATIVE TO THE DEAF <br> AS OF JANUARY I, 1918

# SUMMARY OF STATE LAWS RELATIVE TO THE DEAF. 

Prepared in the Bureau of the Census by Louis C. Taylor and Abrafam Shefferman.

## INTRODUCTION.

The state laws relating to the deaf are summarized in the succeeding pages. The summaries are intended to supply general information as to the principal provisions that have been made by the legislation of the various states regarding the education of the deaf and the alleviation of their condition. Only provisions dealing with the deaf as such have been included; such laws as those for the indigent in general which may also apply to deaf indigents are regarded as not being within the scope of this report.

The laws have not been copied verbatim, although in many instances the particular phrasing of the laws has been preserved in order to avoid possible misinterpretation. Those given are the laws as they appear on the statute books, and as a rule no attempt has been made to indicate cases where the provisions of the law were not carried out in practice. In a few instances, however, where the authorities to whom the summaries were submitted for verification indicated definitely that the actual practice varied in important respects from that provided for by law, the situation has been set forth by means of footnotes.

Compulsory education especially for the deaf is provided for in the laws of 22 of the states (California, Illinois, Indiana, Iowa, Kansas, Maryland, Michigan, Minnesota, Montana, Nebraska, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Dakota, Utah, Vermont, Washington, and Wisconsin). These laws are summarized, but the general provisions for compulsory education which exist in the great majority of the states are not presented.
In the constitutions of Alabama, Arizona, Arkansas, Colorado, Florida, Idaho, Indiana, Kansas, Louisiana, Michigan, Minnesota, Mississippi, Montana, Nevada, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, South Carolina, South Dakota, Texas, Utah, Virginia, Washington, and West Virginia there are references to institutions for the deaf, stating, usually, that such institutions must be established and maintained by the state, or that it is the duty of the legislature to provide by law for the education of the deaf. Since the statutes of these states contain more comprehensive provisions concerning the deaf, and since an understanding of the constitutional provisions seems in no sense to be essential for the present study, no mention of them appears in the state summaries.

Day schools or classes for the deaf are maintained in a number of states, but only in California, Illinois, Michigan, Minnesota, New Jersey, Ohio, Pennsylvania, and Wisconsin are there special laws authorizing day schools for the deaf to be established and operated as a part of the educational system of the state. Deaf students in higher institutions of learning are under certain conditions given state aid in New York, Oklahoma, and South Carolina. In only one state, Minnesota, is there a state agency for the deaf whose duty it is to promote the interests of the deaf generally.
No summary of laws is given for Alaska, Hawaii, or the Philippine Islands, because no provisions werefound in the laws of these possessions, except for an appropriation in Hawaii in 1917 for the construction and operation by the department of public instruction of a school for blind, deaf, dumb, and other defective children, and an appropriation for a deaf and blind school in the Philippine Islands made for the first time in 1914.
In addition to the laws relating to the deaf which have been enacted in the various states, the Federal Government has provided that deaf-mutes, not exceeding 100 in number, residing in the several states and territories, and applying for admission to the collegiate department of the Columbia Institution for the Deaf must be received on the same terms and condi-• tions as those prescribed by law for residents of the District of Columbia, at the discretion of the president of the institution, and the expense for their instruction, together with so much of the expense of their support when indigent and while in the institution as may be authorized by the board of trustees, with the approval of the Secretary of the Interior, is paid from Federal appropriations. No more than three deaf-mutes from any one state or territory may be admitted or maintained in the institution at any one time while there are applications pending from deaf-mute citizens of states or territories having less than three pupils in the school. ( U. S. R.S., §4865; 26 U. S. Stat. L., p.s92; 31 U. S. Stat. L., p. 620.) The law authorizing the census of the deaf and dumb which is set forth in the introduction to this report (see p. 12) also is of interest as Federal legislation concerning the deaf.
The laws of the different states are so varied that no precise outline for their summarization could be followed, but an effort was made to present first the provisions concerning state commissions or boards having general duties in regard to the deaf, if there
were any, then the laws concerning the education of the deaf, provisions for the relief of the needy deaf, and lastly whatever miscellaneous provisions for the deaf exist. To insure the accuracy of the summaries, a copy of the summary for each state was sent to some authority in the state, such as the secretary of the state board of charities or of control, or the superintendent of the school for the deaf, with the request that inaccurate statements or omissions be indicated. Where
seemingly conflicting laws are on the statute books or where confusion otherwise exists which was not cleared up by means of this correspondence, the situation is explained by a footnote. The laws are those up to and including the session laws of 1917. References are given to pages or chapters of the session laws and to pages or sections of the latest available edition of the code, revised laws, or supplement to the code or revised laws of each state.

## SUMMARY OF LAWS.

## ALABAMA.

## Reference:

Code of Alabama, 1907.
SCHOOL FOR THE DEAF.
The board of trustees of the Alabama School for the Deaf consists of the governor, the superintendent of education, and 11 other persons appointed by the governor and confirmed by the senate, three of whom must be from the congressional district in which the school is located and one from each of the other congressional districts. The three members appointed from the district in which the school is located must be from Talladega County. The appointed trustees serve for terms of six years and receive no compensation other than actual expenses incurred in the discharge of their official duties. The board meets from time to time as in their judgment the interests of the school may require and must make a full report at the close of the year to the governor. The object of the school is to afford means of education to the deaf of the state. All deaf children of the state between the ages of 7 and 21 years who are of sound mind, free from disease, and of good moral character may be admitted to the benefits of the school. All applicants must make satisfactory proof to the board of trustees that they are citizens of the state and proper candidates for admission; such proof may be made by an applicant in person, by next friend, or by the affidavit of any person cognizant of the facts, before a probate judge or notary public. The length of time which any pupil may continue in the school must not exceed 10 "years, but upon recommendation by the principal of the school the board may increase the term from year to year, but not to exceed four additional years; no pupil, however, may be retained after having passed the age of 25 years or after it has been ascertained that the pupil has ceased to make progress or is not being benefited. The board may drop any pupil at any time for any cause.
The government of the Alabama School for Negro Deaf and Blind is vested in the board of trustees of the school for the deaf, and the rules governing the admission, instruction, and length of term of the white deaf are applicable to the school for the Negro deaf. The object of the school is stated as being to afford the means of education to the Negro deaf and blind of the state. (Code 1907, $\$ 81935$ ff.)

## ARIZONA.

References:
Revised Statutes of Arizona, 1915.
Session Laws, 1917.
care and education of the deaf.
The commission of state institutions has oversight and general control of the care and education of the deaf, dumb, and blind. Upon presentation of a certificate of the commission showing that the applicant is deaf or dumb, the University of Arizona must admit the applicant to the benefits of an education at state expense and provide him with board and lodging. The expenses for board and lodging, including board and lodging during vacation, are paid by the state, the amount not to exceed $\$ 250$ a year for each pupil.

It is the duty of the board of regents of the state university to make suitable provision for the accommodation and education of the
applicants according to the most improved modern systems for such purposes. This requirement, however, is not operative unless at least five residents of the state affected with either deafness, dumbness, or blindness make application. (R.S. 1913, §§ 2854 ff, 4今95; Laws 1917, p. 180.)

The school census marshal of each school district must include annually in his report the number and names of the deaf and dumb of school age in his district. The report is sent to the county school superintendent, who forwards a copy of it to the state commission of institutions, who upon receipt of proof that those enumerated are deaf and dumb, and of sound mind and of parents who are not able to provide for their education, issue a certificate to them entitling them to an education at the expense of the state. (R.S. 1918. § 2855; Laws 1917, p. 180.)

## ARKANSAS.

## Reference:

Kirby and Castle's Digest of the Statutes of Arkansas, 1916.

## sCHOOL FOR THE DEAF.

The board of control for state charitable institutions has the general management and control of the Arkansas Deaf-Mute Institute.
All deaf-mutes between the ages of 6 and 21 years, of fair intellect and free from any contagious disease, and all deaf-mutes under the age of 6 years who are orphans and subjects of charity may be admitted to the school upon an application accompanied by a certificate of a county judge that they are legal residents of the county in which they claim residence. The state furnishes board and lodging and suitable instruction for all deaf-mutes received as state beneficiaries. Other deaf-mutes may be received into the school according to regulations prescribed by the board. The term of instruction is 13 years. ${ }^{1}$

The parents or guardians must provide the pupils with clothing and pay all traveling expenses, but where they are not provided with money for such expenses the principal of the school may provide money for them to an amount not to exceed the sum of $\$ 40$ a year for one pupil, and charge the same against the county of his residence. Whenever a pupil is removed from the school on account of ill-health or vacation, or having completed his course of instruction, or been found disqualified, the expenses for such removal must be paid by the parent or guardian, and if not, then by the county of his residence. The same applies to funeral expenses. ${ }^{2}$ (K. and C. D. 1916, §§ 4682 ff.)

[^29]It is the duty of the sheriff of each county to ascertain and keep a record of the names, ages, and sex of all deaf-mutes in the county between the ages of 9 and 30 years and to report the same to the board of control at least once a year, and the county examiners are required to include the name and address of all deaf-mutes under 30 years of age in their annual reports to the state superintendent of public instruction. (K. and C. D. 1916, $8 \& 4696,9462$. )

## References:

CALIFORNIA.
Kerr's Political Code of California, 1915.
Deering's General Laws of California, 1916.
Session Laws, 1917.
SCHOOL FOR THE DEAF.
The management and control of the California School for the Deaf and Blind is vested in a board of directors, consisting of five persons appointed by the governor with the consent of the senate for the term of four years, who receive no compensation. The board must report to the governor.

The school is a part of the school system of the state, except that it does not derive any revenue from the public school fund, and has for its object the education of the deaf and blind who by reason of their infirmity can not be taught in the public schools.

Every deaf resident of the state of suitable age and capacity is entitled to an education in the school free of charge. If the parent or guardian of any pupil in the school is unable to clothe such child or pay for its transportation to and from the school, he may testify to such inability before a judge of the superior court of his county of residence, and if the judge is satisfied of the truth of the testimony he must issue a certificate to that effect, and upon presentation of the certificate, the directors of the school must clothe the pupil and provide the transportation at the expense of the county from which the pupil comes. All pupils in the school are maintained at the expense of the state. Deaf persons from other states may be admitted to the school upon paying the treasurer $\$ 85$ quarterly in advance. (K. P. C. 1915, $8 \$ 2237 . f f, 368$.)

## students in the columbia institution for the deaf.

An appropriation is made for defraying the expenses of deaf citizens of the state who are graduates of the school for the deaf and are taking a collegiate course of instruction at the National College for the Deaf at Washington, D. C.; but not more than $\$ 300$ may be expended for any one student during any one school year. (Laws 1917, p. 485.)

## speclal classes for the deaf.

The board of education of every city or city and county, or board of school trustees of every school district containing five or more deaf children, or children who from deafness are unable to hear common conversation, between the ages of 3 and 21 years, may in their discretion establish and maintain separate classes in the primary and grammar grades of the public schools, and such pupils must be taught by the pure oral system for teaching the deaf. (K. P. C. 1915, § 1618.)

## COMPULSORY EDUCATION.

Every parent or guardian of any deaf child who is legally entitled to admission in the state school for the deaf must send the child to the school for five years, or until the child has reached the age of majority, unless the child is excused from attendance by the board of education or board of trustees of the city, city and county, or school district in which the child resides, for the reason that the child's bodily or mental condition is such as to prevent or render inadvisable attendance at the school or that he is receiving proper instruction at home or at some public or private school.' Failure to comply with this requirement constitutes a misdemeanor. (D.G.L. 1916, p. 1588.)

## COLORADO.

## Reference:

Mills' Annotated Statutes, 1912.

## SCHOOL FOR THE DEAF.

The management of the Colorado School for the Deaf and Blind is vested in a board of five trustees appointed by the governor with the consent of the senate for terms of six years. The trustees receive no compensation other than their actual expenses incurred in the performance of their duties. The object of the school is the education of such children of the state as can not, by reason of the impairment of their sense of hearing or of sight, be advantageously educated in other schools of the state. Every deaf citizen of the state of sound mind, over 6 and under 21 years of age, is entitled to receive an education in the institute at the expense of the state. All applicants above the age of 21 years may be admitted at the option of the board. Each county superintendent of common schools must report annually to the superintendent of the institute for the deaf and blind the name, age, and address of every deaf person of suitable age for admission to the school, residing in his county, including all such persons as may be too deaf to acquire an education in the common school. At the time of taking the annual census, the district secretary must use reasonable diligence to ascertain the number of deaf-mute persons, resident in his district, between the ages of 4 and 22 years, with the name and address of each, which items are to be included in his annual report to the county superintendent. When there is room in the institution residents of other states may be admitted upon the payment of a sum to be fixed by the trustees but not to be less than the per capita cost of the inmates for the preceding year. In every case where a deaf person sent to the institute is too poor to furnish himself with sufficient clothing and pay the expenses of transportation to and from the institution, the county of his residence must meet the expenses if the judge of the county court thinks him a proper subject for the care of the institute. (M. A.S.1912, §§ 5009 ff, 6910, 5031 ff, 6672.)

## CONNECTICUT.

## Referencies:

General Statutes of Connecticut. Revision of 1902. Session Laws, 1915.

## education of the deaf.

The governor may appoint any deaf minor person who is domiciled within the state as a pupil at any institution in the state for the education of the deaf, for a period of not more than 12 years, and he may upon recommendation of the principal or superintendent of the institution extend the period for 6 years. The governor may revoke any such appointment. The governor may contract for the support, care, and education of persons appointed as pupils of the state, and no pupil can be withdrawn from any institution without the consent of the proper authorities thereof or of the governor. The expense incurred for the support, care, and education of all deaf persons appointed by the governor must be paid by the state, except so far as such expense may be voluntarily paid by any such pupils or their parents or guardians. The expense may not exceed $\$ 300$ a year for any one pupil, but an additional sum not exceeding $\$ 20$ a year may be expended for necessary clothing for any pupil. (Laws 1915, p. 2193.)

## census of the deaf.

The selectmen of each town must return to the governor annually the number of deaf and dumb persons in their town and the age, sex, and pecuniary circumstances of each. (G. S. 1902, § 1831.)

## DELAWARE.

## Reference:

Revised Code of Delaware, 1915.
education of the deaf.
The judges of the superior court are ex officio trustees of the indigent deaf and dumb of the state, and applications may be made to them for admission of any such persons into any institution or to place them with any private instructor teaching the oral method that they may select. Upon recommendation by the trustees the governor may accordingly appoint any deaf and dumb person as a beneficiary of the state to any institution for the instruction of the deaf and dumb or place him with any private instructor teaching the oral system that may be selected by the trustees. The state pays for the board and tuition of each beneficiary a sum not greater than the sum paid by the state of Pennsylvania for each indigent pupil of the state who is taught in the Pennsylvania Institution for the Deaf and Dumb. The term of instruction as beneficiary of the state is five years, but upon recommendation by the principal of the institution of a continuance and his statement that the pupil is capable of making further improvement, the term may be extended to any time not exceeding seven additional years. (R. C. $1915, \S \S 2585$ ff.)

Whenever the parents or guardian of a deaf and dumb beneficiary elect to have the beneficiary receive the oral instruction by private instructor, the superintendent of free schools for the county in which the beneficiary resides must see that the amount so appropriated is spent for the specific purpose intended. (R.C. 1915, § 2592.)

The commission for the blind must appoint a representative to visit twice a year the institutions outside the state where the indigent blind, deaf, dumb, and idiotic children of the stateare instructed in order to ascertain whether or not they are receiving proper treatment and instruction and are making such improvement or advancement as to justify the state in incurring the expense attached to their remaining in the institution; the commission must make a report of the investigation to the governor annually. ( $R . C$. 1915, § 2583.)
students in the columbia institution for the deaf.
The state appropriates $\$ 250$ annually for the board, tuition, and clothing for each pupil from the state at the Columbia. Institution for the Deaf at Washington, D. C. (R. C. 1915, §2588.)

DISTRİ்T OF COLUMBIA.

## References:

United States Revised Statutes.
United States Statutes at Large, vols. 25, 30, 31, 33, 35, 36, 39.

## sChool for the deaf.

The Columbia Institution for the Deaf is governed by a board of eleven directors, one of whom is a Senator, appointed by the President of the Senate, two of whom are Representatives, appointed by the Speaker of the House, and two of whom are the president and secretary of the institution, ex officio. The directors appointed from Congress hold their offices for the term of a single Congress and until the appointment and acceptance of office of their successors; they are eligible to a reappointment. The other eight directors are self-perpetuating and serve for life. The president and directors of the institution must make a report to the Secretary of the Interior annually.

All deaf-mutes of teachable age, of good mental capacity, and properly belonging to the District of Columbia are received and instructed in the institution, their admission being subject to the approval of the superintendent of public schools in the District of Columbia. One-half of the expenses of such pupils are paid from the revenues of the District of Columbia and one-half from the Treasury of the United States. The institution is declared not to be regarded
nor classified as an institution of charity. (R.S., §§ 4859 ff; 36 Stat. L., p. 1422; 30 Stat. L., p. 624; 25 Stat. L., p. 962; 31 Stat. L., p. 844.)

EDUCATION OF THE COLORED DEAF.
The District Commissioners are authorized to contract for the maintenance and tuition of colored deaf-mutes of teachable age belonging to the District of Columbia, in Maryland or some other state. (33 Stat. L., p.901; 35 Stat.L., p. 295; 39 Stat. L., p. 1027.)

## census of the deaf.

It is the duty of the justices of the peace for the District of Columbia to ascertain the names and residences of all deaf and dumb persons within their respective districts, who of them are of teachable sge, and also who of them are in indigent circumstances; and to report the same to the president of the Columbia Institution for the Deaf. (R.S., §4866.)

## FLORIDA.

Reference:
Compiled Laws of Florida, 1914.
SCHOOL FOR THE DEAF.
The state board of control has charge of the control and management of the Florida School for the Deaf and the Blind. Any deaf person residing in the state between the ages of 6 and 21 years may upon certification of his application by the commissioner of his county of residence be received into the school. No deaf person who is making marked progress on reaching the age of 21 years may be dismissed from the school excepting at his own option, until he has graduated. The county commissioners pay all transportation expenses and the state pays all the expenses for clothing, food, and other necessities. Those who are able are required to pay all the necessary expenses, tuition excepted. The board, upon the recommendation of the superintendent, may allow pupils to remain after they reach the age of 21 years. (C. L. 1914, §§ 417c ff.)

## GEORGIA.

## Reference:

Park's Annotated Code of Georgia, 1914.

## SCHOOL FOR THE DEAF.

The Georgia School for the Deaf is governed by a board of seven trustees; the governor may remove for cause any member at any time, and fills all vacancies which occur in the board. The governor appoints a board of visitors, who meet the board of trustees annually at the school; any of the board of trustees may in the discretion of the governor be removed by him upon recommendation of the board of visitors. The trustees must report the condition of the school to the governor annually. All persons in the state between the ages of 7 and 25 years, who are too deaf to be educated in the common schools, and who are otherwise in a condition mentally and physically to receive instruction profitably, and free from any immoral conduct or contagious disease, are entitled to admission as pupils to all the privileges of the school free of charge.

The pupils may remain in the school for any number of terms that the board upon recommendation by the principal may see proper to grant, but no pupil may remain more than 12 terms.

In case parents or guardians are unable to furnish the pupil with such clothing as prescribed by the board of trustees, the clothing may be supplied by the authorities of the school, free of cost, upon the certificate of the ordinary of the county from which the pupil comes, that the parent or guardian is not in a pecuniary condition to furnish the clothing. All pupils may be furnished shoes from the shop free of cost. In case of great destitution the railroad fare of pupils coming to and from the school may be paid from the support fund of the school; and in case such pupils have no homes
to which they can be sent for the vacations, the board of commissioners of their county or other proper authority must make provision for their care during vacation. Any parent or guardian of a deaf person may send him to the school for the deaf and board him at their own expense at any place outside the institution. The tax receiver of each county must keep a column in his books, showing the number of deaf persons between the ages of 7 and 25 years in his county. The ordinary of each county must make a record of all the indigent deaf and procure their admission into the school, and if they are not received he must report the names, ages, and sex of such persons to the trustees, who keep a record of all such reports. (Code 1914, \$8 1416 ff.)

## IDAHO.

## Reference:

Session Laws, 1909.

## sCEOOL FOR THE DEAF.

The general control and management of the State School for the Deaf and the Blind is vested in the state board of education. The board ascertains the number of deaf persons in the state and takes necessary steps to provide for their education. It may provide for a careful examination of all applicants for admission to the school. All persons between the ages of 6 and 21 years who are too deaf to be educated in the public schools may be admitted into the school. All the expenses of the examination and education of the deaf are paid by the state. The board also arranges for the conveyance of scholars to and from the school at the expense of the state. The census marahal of each school district at the time of enumerating the children of school age must carefully ascertain what children between the ages of 6 and 21 years are deaf, and record the names, ages, and sex of such children, and the name of the parents, guardian, or other person having charge of such children, and report the same to the county superintendent of public instruction, who in turn reports them to the state superintendent of public instruction. (Laws 1909, pp. s79 ff.)

## ILLINOIS.

## RLference:

Revised Statutes of Illinois, 1917.

## SCHOOL FOR THE DEAF.

The general supervision of the Illinois School for the Deaf is vested in the Department of Public Welfare, which has control of state charities and charitable institutions. The object of the school is to promote the intellectual, moral, and physical culture of the deaf and to fit them as far as possible for earning their own livelihood and for future usefulness in society. (R.S. 1917, pp. 612, 211, 209, 225.)

All deaf persons residing in the state receive their board, tuition, and treatment free at the state school for the deaf. When there is room, deaf residents from other states may enter the school, upon payment for their board, tuition, and treatment. In all cases where a person sent to the school is too poor to furnish himself with clothing, and to pay his expenses for traveling to and from the school, the county of his residence must pay the expenses, if the judge of the county court, upon application of any relative or friend of the deaf person, thinks him a proper subject for the care of the institution. (R.S. 1917, p. 228.)

## day schools for the deaf.

Boards of education and school directors may establish and maintain classes and schools for deaf and dumb residents, and the excess cost of maintaining such classes and schools over the cost for schools for normal children is paid by the state, provided that the excess cost does not exceed the amount of $\$ 110$ for each deaf and dumb pupil. The classes and schools are for the benefit of deaf children between the ages of 3 and 21 years and no person may teach the
deaf in such schools who has not had instruction in teaching the deaf for a term of one year. (R.S.1917, pp. 2796 f.)

## COMPULSORY EDUCATION.

Every parent, guardian, or other person having control or charge of any child between the ages of 8 and 18 years who is deaf or whose hearing is so defective as to make it impracticable to have the child educated in the ordinary public schools must send the child to some school within the state where special provision is made for the education of the deaf, unless the child is not physically or mentally competent to be educated. In cases where the parent, guardian, or other person is unable financially to furnish the child with transportation or the proper and necessary clothing, the county court of the county in which the child resides, or in which it may be found, may make an order directing the child to be taken to the school the parent, guardian, or custodian prefers, or if no preference is expressed, to the school the court thinks for the best interest of the child, and for the furnishing of transportation for the child, including a proper custodian, preferably the parent or guardian, and for the furnishing of suitable and proper clothing, if necessary. The expense is to be advanced by the sheriff of the county and allowed by the board of supervisors; the order may also include an allowance for the return of the child at suitable intervals. The county court is empowered in cases where the parent, guardian, or other person having custody of the child fails or neglects to perform the duty imposed on him by law to hold a summary hearing on due notice, on complaint of any citizen of the county, and to make an order directing the child to be sent to school, which may be enforced by legal process. The duty of seeing that this law is enforced is placed upon the truant officer of the school district and upon the state's attorney of the county where the child resides. It is a misdemeanor for the parent, guardian, or other person having charge of such a child to fail, neglect, or refuse to send the child to a suitable school. (R.S. 1917, pp.2757 ff.)

INDIANA.

## Reference:

Burns's Annotated Indiana Statutes, 1914.

## sChool for the deaf.

The general government and management of the Indiana State School for the Deaf is vested in a board of trustees consisting of four members appointed by the governor for terms of four years. Not more than two members of the board may be members of the same political party. The members of the board receive an annual salary of $\$ 300$ for their services, and a sum not to exceed $\$ 125$ a year for their necessary expenses. The board must meet at least once a month and must make an annual report to the governor. The school is declared to be purely an educational institution and is not to be classed as benevolent or charitable. Upon application to the board, accompanied by a certificate from a justice of the peace that the applicant is a legal resident of the county in which he resides, any deaf person of school age and with average mentality may be admitted to the school for the deaf. In all cases where the parents, guardians, or friends are able, they must pay for the necessary clothing and for the traveling expenses to and from the school, and wherever the parents, guardians, or friends of the pupils have neglected to pay, the county from which they are sent pays such expenses, but not exceeding the amount of $\$ 40$ for each person. The county may collect this amount from the parents, when they are able to pay, but property to the amount of $\$ 300$ is exempt from such charges. Pupils from without the state may be admitted to the school on the payment of such sum as the board may consider sufficient to defray expenses. (Stat. 1914, \&§ 3495 ff, $3427 . f f, 3499 \mathrm{ff}$.)

## COMPULSORY EDUCATION.

Parents, guardians, or other persons in the state having control or charge of any child, between the ages of 7 and 18 years, who is either totally deaf or whose hearing is so defective that he is unable to secure an education by the sense of hearing, are required uoder
penalties to send the child to the Indiana School for the Deaf during the full scholastic term of that school unless discharged therefrom or refused admittance thereto by the board of trustees; but if an application for admission to the school is rejected by the board of trustees, or if the applicant is discharged after admission, the parent, guardian, or other person having charge of the child is exempted from any penalty. Any parent, guardian, or other person having control of a deaf child between the ages of 7 and 18 years, who permits its employment, and the person employing it, during the school term, without a certificate of discharge issued by the superintendent of the school, duly presented, is guilty of a misdemeanor.

The assessors of property are required to make a list of all the deaf persons in their districts, setting forth the name, age, and sex and the names of the parents or guardians. Such lists are returned to the bureau of statistics, which in turn submits the lists to the superintendent of the school for the deaf. (Stat. 1914, §§ 6675 , 6685d, 10203.)

IOWA.

## References:

Supplement of the Code of Iowa, 1913 and 1915.
Session Laws, 1917.

## SCHOOL FOR THE DEAF.

The general management and control of the Iowa School for the Deaf is vested in the state board of education. The superintendent of the school is required to be proficient in the use of the sign language. Every resident of the state, between the ages of 5 and 21 years, who is deaf and dumb, or is so deaf as to be unable to acquire an education in the common schools, is entitled to receive an education in the school at the expense of the state, and nonresidents may also be entitled to its benefits, if they can be accommodated, upon paying to the treasurer $\$ 66$ quarterly, in advance. Deaf persons over the age of 21 but under 35 years of age may be admitted by the consent of the board. Each superintendent of common schools must report to the superintendent of the school for the deaf the name, age, and address of all such deaf persons residing in his county. When a pupil is not supplied with clothing, he must be furnished with it by the superintendent and the expense is charged against the parents or guardian or the pupil himself. The amount is paid by the state and collected from the county of the pupil's residence, which may collect from the parents or guardian or the pupil himself. (Supp. 191s, §§ 2724 Jf, 2727a8; Laws 1917, p. 176.)

## COMPULSORY EDUCATION.

Any person having under his control a child, a resident of the state, between 12 and 19 years of age, who is so deaf as to be unable to obtain an education in the common schools, must send such child to the school for the deaf during the scholastic year. The superintendent of the school may excuse the attendance of such child when heisin such mental or bodily condition as to prevent his attendance, or when he is so diseased or possesses such habits as to render his presence a menace to the health or morals of the other pupils, or when he is sufficiently taught by a private tutor in the branches taught in the public schools. A penalty is provided for the failure to comply with this requirement, and it is a misdemeanor for any person to induce a deaf child to absent himself from school or to employ or harbor a deaf child when school is in session. (Supp. 1918, 8 2718c ff.)
The county assessors record the names, ages, sexes, and addresses of the deaf in their jurisdiction and the records are forwarded to the board of control of state institutions. (Supp. 1918, § 1354a.ff.)

## special instructors of the deaf.

Any school corporation within the state having deaf children of school age may provide one or more special instructors for such children, the instruction given by such instructors to be substantially equivalent to that given other children of corresponding age in the
graded schools. Any corporation providing such instruction receives state aid to the amount of $\$ 11$ for each month that each child not more than 10 years of age is instructed. No child more than 10 years of age is to be admitted to such instruction. The state board of education has general supervision of the carrying out of the provisions of this law, and no instructor can be appointed and no courses or methods of instruction can be installed without the approval of the board. (Laws 1917, p. 347.)

## KANSAS.

## References:

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\text { General Statutes of Kansas, } 1915 .
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Session Laws, 1917.

## SCHOOL FOR THE DEAF.

The state board of administration has charge of the management and control of the Kansas School for the Deaf. It is the duty of the board to admit to the privileges of the educational department children whose parents reside in the vicinity of the school, the parents having the privilege of boarding and caring for the children outside of the school without expense to the state. Nonresidents are not admitted into the school unless the board of administration orders their admission because their legal residence can not be ascertained or there are other peculiar circumstances that constitute a sufficient reason for the suspension of the rule. (G.S. 1915, §§ 9940, 6010; Laws 1917, pp. 428 .ff.)

## COMPULSORY EDUCATION.

Every parent, guardian, corporation, association, or person having control of a deaf person between the ages of 7 and 21 years must send such person to some suitable school for the deaf. The instruction given the deaf must be conducted either orally or by the sign method, or both, for a period of at least five months a year. This does not apply to any child who is being given skilled private instruction for a period of at least five months each year. The truant officer enforces this provision and a penalty is provided for failure to comply with it. (G.S. 1915, § 9441.)

CENSUS OF THE DEAF.
The assessors of the respective townships must take an annual census of the deaf and dumb, which includes their age, sex, and color, and names, and the addresses of their parents and guardians. The census is taken together with one of manufactures, agriculture, the blind, insane, and idiotic. (G.S. 1915, §§ 762, 766.)

## KENTUCKY.

## References:

Carroll's Kentucky Statutes, 1915.
Session Laws, 1881.
school for the deaf.
The general control and management of the Kentucky School for the Deaf is vested in a board of commissioners consisting of 12 mem bers, 6 of whom must be residents of Boyle County, appointed by the governor with the consent of the senate, for terms of six years. The board must annually report to the governor showing the financial and general condition of the school. It may receive into the school without regard to their pecuniary condition and circumstances all deaf resident children of suitable age, character, and capacity on terms and conditions prescribed by law. Any deaf child entering under the age of 13 years may remain as a state beneficiary until he attains the age of 21 years. All children residing in the state must be received and taught free of tuition, board, and use of books and other instruments and apparatus used in teaching. The amount of $\$ 200$ is appropriated annually for the purpose of clothing the indigent pupils. Nonresident deaf may be admitted to the school upon payment of the expenses of their maintenance, provided that their admission does not operate to exclude any indigent
pupils of the state, until such number reaches 25 . (C. K.S. 1915, §§ 273 ff, 285, 291 ff; Laws 1881, p. 41.) ${ }^{1}$

## SCHOOL FOR THE COLORED DEAF.

A separate school is maintained for the colored deaf of the state under the control and management of the board of commissioners of the school for the white deaf. All the provisions for the education and maintenance of the white deaf are applicable to the colored deaf. (C. K. S. 1915, §§ 282 JJ.)

## LOUISIANA.

References:
Marr's Revised Statutes of Louisiana, 1915.
Session Laws, 1916.

## sChool for the deaf.

The Louisiana State School for the Deaf is governed by the state board of education. The institution provides, according to the law, all the requisite facilities for acquiring a good literary education, and an industrial department in which instruction is given in such trades as are best suited to render the pupils selfsustaining citizens.

All residents of the state between the ages of 8 and 22 years, so deaf as not to be able to acquire an education in the ordinary schools, are admitted to the state institution if they are of sound mind and body. Such persons receive instruction, board, lodging, medicine, and medical attendance at the expense of the state, and if in such indigent circumstances as to render it necessary, are also furnished with clothing and traveling expenses to and from the institution. Persons admitted as pupils under 14 years of age may continue in the institution ten years; if over 14 and under 17 years of age, they may continue eight years; and if over 17 years of age, they may continue five years. The board may in any case extend the term two years. (M.R.S.1915, \&\& 2385 ff; Laws 1916, p. 506.)

## MAINE.

## Reference:

Session Laws, 1897.

## sCHOOL FOR THE DEAF.

The government of the Maine School for the Deaf is vested in a board of five trustees, appointed by the governor with the consent of the council, for terms of five years. They receive $\$ 2$ per day and actual expenses. With the consent of its parents or guardian any deaf or dumb child of not less than 5 years of age who is a resident of the state may be admitted to the school for a term not exceeding 12 years. No pupil may be withdrawn or discharged from the school without the consent of the trustees or the governor and council. The state pays for the support and instruction of the pupils while attending the school. Deaf and dumb children from other states may at the discretion of the trus-

[^30]tees be admitted to the school upon the payment by their parents or guardians of a reasonable compensation fixed by the trustees. (Laws 1897, p. 704.)

## MARYLAND.

## References:

Annotated Code, 1911-14.
Session Laws, 1867, 1916.
schools for the deaf.
The general supervision of the Maryland State School for the Deaf is vested in a board of visitors consisting of 30 members, Whose terms are for life, the governor filling all vacancies. (Laws 1867, pp. 486 ff; Laws 1916, p. 124.)

Upon the application of any parent, guardian, or next friend (provided that they have been residents of the state for two years) of any deaf and dumb person of teachable age and capacity, not exceeding the age of 21 years, the county commissioners or the mayor and city council of Baltimore must inquire into the age, capacity, and ability of such deaf and dumb person, and also into the ability of the parent or guardian to pay the expense of the pupil's education, and must certify their findings to the governor. Upon receipt of the certificate the governor must authorize the instruction of the pupil at the school for a term not exceeding seven years. ${ }^{1}$
The state allows $\$ 200$ for each such deaf and dumb pupil taught in the school, and also pays the expenses necessarily incurred in transporting and returning the pupil, but the whole amount drawn from the treasury for these purposes may not exceed $\$ 7,500$ in any one year. The governor must dispose of applications in the order in which they are made. (Code 1914, pp. 814 ff.)
In 1917 the appropriation for the schgol for the deaf was $\$ 37,500$, and $\$ 12,000$ was appropriated to the Maryland School for the Blind for the education of the deaf, dumb, and blind colored children of the state. (Laws 1916, pp. 155s, 1568.)

## COMPULSORY EDUCATION.

Any person having under his control a deaf child between the ages of 6 and 16 years must send such child to a school for the deaf for eight months, or during the scholastic year each year, unless the child is elsewhere receiving thorough instruction in studies taught in public schools to children of the same age, or is regularly enrolled at a deaf school and is temporarily excused from attendance by the authorities of the school, or is in such physical condition as would render instruction impracticable. If the person having control of the child is unable to pay the transportation expenses, the state pays the expenses upon the certification of such fact by three reputable male citizens over the age of 21 years, residents of the school district in which the child resides. The principal teacher of every county school and the truant officers of the city of Baltimore report to the county commissioners or the board of education of Baltimore, as the case may be, the names of all deaf children between the ages of 6 and 16 years in their district who do not attend school. This report is certified to the principals of the schools for the deaf.

Any person having such a deaf child under his control and failing to comply with this provision is guilty of a misdemeanor and must, upon conviction before a justice of the peace, be fined a sum not exceeding $\$ 5$ for each offense; and any person inducing a deaf child to absent himself from a school during its session is guilty of a misdemeanor, punishable by a fine not exceeding $\$ 50$ for each offense. (Code 1914, pp. 1761 .ff.)

[^31]
## MASSACHUSETTS.

## References:

Revised Laws of Massachusetts, 1902. Session Laws, 1914.

## EDDCATION OF THE DEAP.

The general supervision of the education of the deaf of the state is vested in the state board of education. The governor may, upon the request of the parents or guardians and with the approval of the board, send such deaf persons as he considers proper subjects for education to the American School for the Deaf at Hartford, Conn., the Clarke School for the Deaf at Northampton, Mass., the Horace Mann School at Boston, or to any other school for the deaf in the state, as the parents or guardians may prefer. The regular term may not exceed 10 years, but upon request by the parents or guardians and with the approval of the board, he may continue for a longer term the instruction of meritorious pupils recommended by the principal or other chief officer of the school of which they are members. No such pupil may be withdrawn from such institution without the consent of the governor or the authorities thereof. The expense of instruction, support, and transportation is paid by the state, but the parents or guardians of the pupils may pay the whole or any part of the expense. With the approval of the board and at the expense of the state, the governor may make such provision for the care and education of children who are both deaf and blind as he may think expedient. The sum of $\$ 3,500$ is paid annually upon the approval of the board of education to the New England Industrial School for Deaf-Mutes at Beverly, Mass., to be expended under the direction of the trustees of the institution. (R.L.1902, p. 462; Laws 1914, p. 102s.)

## MICBIGAN.

References:
Compiled Laws, 1915.
Session Laws, 1917.

## GCHOOL FOR THE DEAF.

The general supervision and government of the Michigan School for the Deaf is vested in a board of trustees, consisting of three members appointed by the governor with the consent of the senate. The members serve for terms of six years, without compensation other than their necessary expenses. All deaf and partially deaf residents of the state, whose defective hearing prevents theirreceiving instruction in the common schools, between the ages of 7 and 21 years, are received in the school without charge for tuition, board, lodging, washing, medicine, or medical attendance, if in suitable condition of body and mind to receive instruction. The school is declared to be a public school and is not to be classed as charitable. Its object is the education of such of the children of the state as may not, by reason of the impairment of their sense of hearing, be advantageously educated in another public school of the state. The term of instruction is not to exceed 13 years. The board may, in their discretion, admit persons under the age of 7 or over the age of 21 years. The board may admit applicants from other states, and prescribe the compensation to be paid for them, but the compensation must be sufficient to cover all their necessary expenses. In all cases where deaf and dumb persons, residents of the state, are unable to furnish themselves with suitable clothing and other necessaries for attending the school the board of trustees has discretionary power to render them assistance, not exceeding $\$ 40$ a year for each person, and the amount is a charge upon the county of the person's residence.

The superintendent of the poor in each county where there are any deaf and dumb persons of good natural intellect and good moral character who have no contagious disease and who are at all likely to become a charge upon the county must send such persons to the state school for the deaf. The superintendent must see that the persons so sent are in a state of perfect bodily cleanliness, com-
fortably and decently clothed, and provided with suitable changes of clothing; he must also provide clothing and all other articles of necessity during their stay in the school and pay for their traveling expenses. If such persons remain at the school during vacation the superintendent must pay for their board during the vacation; no pupil of the school may be returned to any poorhouse during a vacation. (C. L. 1915, 881445 ff; Laws 1917, p. 270.)

## DAY SGHOOLS FOR THE DEAF.

Upon application to the superintendent of public instruction, a school district board, the board of trustees of a graded school, or a board of education of any city may establish and maintain within the limits of its district one or more day schools having an average attendance of not less than three persons, for the instruction of deaf persons over the age of 3 years whose parents or guardians are residents of the state and who by reason of defective hearing can not profitably be educated in the public schools. The state pays for the maintenance of such schools, the cost of which is not to exceed $\$ 150$ for each deaf person instructed during the school year, and a part of such sum proportionate to the time of instruction of any pupil instructed for less than nine months during the year. All teachers in such schools must be graduates of a school for teachers of the deaf by the "oral" method and they must also have at least one year's experience as a teacher in a school for the deaf. The oral system must be taught in the schools and if, after a fair trial of nine months, any of such pupils are unable to learn the oral method, then no further expense may be incurred to teach the pupil in such a school. (C. L. 1915, §§ $5969 . f f$.)

## COMPULSORY EDUCATION.

Every parent, guardian, or other person having control or charge of any child or children between the ages of 7 and 18 years, who by reason of deafness or imperfect hearing can not be taught successfully in the public schools, must send the child or children to a day school for the deaf, the state school for the deaf, or to any other school for the deaf that they may prefer, butif they do not send them to any other school, then they must send them to the state school. A penalty is provided for the failure to comply with this provision. In cases where the parent or guardian is unable to furnish the traveling expenses of the child, the board of trustees of the state school may furnish the expenses each year and include traveling expenses for the parent or guardian if the child is under 12 years of age, and the county of residence of the child then pays such expenses. (C. L. 1915, §§ 5986 ff.)

## census of the deaf.

The supervisor or assessor of each township and ward in the state at the time of making his general assessment and assessment roll for his township or ward in each year must set down the name, age, and general health, habits, and occupation of every deaf and dumb person; the kind, degree, and duration of the affliction; the sex; whether married or single or widowed; the time under medical treatment; the pecuniary ability of the person thus afflicted, and of the relatives of such person liable for his support; whether supported wholly or in part by the public; and such further information relative to this class as may be thought useful. This record is transmitted to the secretary of state, who must present an abstract of the information to the governor. (C. L. 1915, $\$ \S 5638$ ff.)

## MINNESOTA.

## References:

General Statutes of Minnesota, 1913.
Session Laws, 1915, 1917.
state agency for the deaf.
There is a division in the bureau of labor devoted to the deaf, which is under the supervision of the commissioner of labor. The commissioner appoints a competent person to take charge of the
division, who must devote his time to special work for the deaf. He must collect statistics of the deaf, ascertain what trades or occupations are most suitable for them and best adapted to promote their interest, and use his best efforts to aid them in securing employment in which they may be fitted to engage. He must keep a census of the deaf and obtain facts, information, and statistics as to their condition in life with a view to the betterment of their lot; and obtain information of the condition of labor and employment and education of the deaf in other states, with a view to promoting the general welfare of the deaf in the state. (G.S. 1913, § 3829.)

## SCHOOL FOR THE DEAF.

The general supervision and control of the Minnesota School for the Deaf is vested in the state board of control. Any deaf resident of the state of suitable age and capacity for instruction may be received, kept, and taught in the school for the deaf under such conditions as the board may prescribe. In any case where a deaf person is too poor to pay for his clothing, postage, and transportation expenses, the county of his residence, upon certification of the probate judge of the county, must pay such expenses, the amount not to exceed $\$ 40$. (G.S.1913, §§ 4149, 4146; Laws 1917, p. 490.)

## DAY SCHOOLS FOR THE DEAF.

Upon application of any school district, made to the state superintendent of education, he may give it permission to maintain and establish schools for instructing deaf children who are residents of the state, provided that the school has an attendance of not less than five deaf children, between the ages of 4 and 10 years. All such schools must be conducted by the combined system which includes the oral, the aural, the manual, and every method known to this profession, and the courses and methods of instruction must be equally as efficient as those in the state school for the deaf. The sum of $\$ 100$ is appropriated for each deaf pupil instructed for the annual session of nine months. (Laws 1915, p. 258.)

## COMPULSORY EDUCATION.

Every parent, guardian, or other person having control of any normal child between the ages of 8 and 20 years, too deaf to be materially benefited by instruction in public schools, must send such child to the state school for the deaf, and the child must continue in the school until discharged by the superintendent upon approval by the board of control. Such attendance may be excused if the child is in such bodily or mental condition as to prevent his attendance at school or application to study for the period required, or if he is afflicted with such contagious disease or possesses such habits as to render his presence a menace to the health or morals of the other pupils, or if he is efficiently taught for the scholastic year in a private or other school or by a private tutor, the branches taught in public schools so far as possible. A penalty is imposed for the failure to comply with this provision. It is the duty of the principals of the county schools and the truant officers in the cities of St. Paul, Minneapolis, and Duluth to furnish the name, age, sex, and address of the parent or guardian of all such children who do not attend school to the educational authorities, who shall certify them to the superintendeat of the school for the deaf. (Laws 1917, p. 491.)

## MISSISSIPPI.

## Reference: <br> Hemingway's Annotated Mississippi Code, 1917.

## SCHOOL FOR THE DEAF.

The government of the Institute for the Deaf and Dumb is vested in a board of five trustees, appointed by the governor with the consent of the senate for terms of four years. The board may admit into the institute only bona fide residents of the state, of good moral character. It must fix the amount to be paid by pupils for board, the terms of admission, and times of payment, but it must admit free of all charges, upon the certificate of the county superin-
tendent of education, all invalid and indigent deaf and dumb persons who are eligible, provided the amount appropriated by the legislature is sufficient to care for them properly. (H. A. M.S. 1917, $\$ \$ 4994$ ff.)

## MISSOURI.

## References:

Revised Statutes, 1909.
Session Laws, 1915, 1917.
SCHOOL FOR THE DEAF.
The government of the Missouri School for the Deaf is vested in a board of managers composed of five members. The managers are appointed by the governor with the consent of the senate for terms of four years, and each receives a salary of $\$ 100$ a year. If nonresidents of the county where the school is located they receive actual traveling expenses. For every regular monthly meeting any member is absent he forfeits $\$ 5$. Two members of the board must, together, personally visit and inspect the school in detail monthly; a majority of them, together, quarterly; and all the members of the board must, together, make a detailed inspection not less than once a year. The object of the school is to educate deaf persons in the use of written and spoken language, the elementary branches, and in mechanical trades and industrial pursuits and to give them special training in such mechanical trades and industrial pursuits as will fit them for the practical duties of life and render them selfsupporting. All deaf persons of suitable mental and physical capacity under 21 years of age, residing in the state, are entitled to the benefits of the institution, and are permitted to remain in the institution for 12 years, but a pupil may be discharged at any time for failure to make sufficient progress in the school course and industrial training, or for violation of the rules of the school. In all cases where a pupil is not provided with suitable clothing and necessary traveling expenses, his county of residence must pay the same to an amount not to exceed $\$ 60$ a year, and collect the same from the parents or the pupil, if they are able to pay. The superintendent of the school is authorized to expend $\$ 200$ annually for books and papers for general reading suitable for the pupils, and adapted to their ages. (R.S. 1909, §§ 1867 ff, 1486 .ff; Laws 1915, p. 209; Laws 1917, p. 192.)

## CENSUS OF THE DEAF.

The board of directors of each district must in connection with the school census annually take or cause to be taken an enumeration of all deaf and dumb persons of school age residing in their districts. (R.S. 1909, § 10790.)

## MONTANA.

## Reperences:

Revised Codes of Montana, 1907. Supplement, 1915.

## SCHOOL FOR THE DEAF.

The general control and supervision of the Montana School for the Deaf and Blind is vested in the state board of education, but the board confers upon the executive board of the school such authority relative to the immediate management, other than financial, as it thinks expedient. The board of education appoints the president of the school and fixes his salary. The executive board consists of the president of the school, ex officio chairman, and two members appointed by the governor with the consent of the board of education. At least two of the three members of the board must reside in the county where the institution is located. The appointed members of the board hold office four years, and receive such compensation as the board of education determines, not to exceed $\$ 5$ for each day actually spent in the discharge of their duties, and not exceeding $\$ 125$ in any one year, for each member. All expenses necessarily incurred by them in the discharge of their duties are paid by the state. (Supp., 1915.pp 74 .f.)

The object of the school is to furnish all children who are debarred from the public schools by reason of deafness, dumbness, blindness, or feeble-mindedness with at least an ordinary public school education in all the customary branches, and to train them into mastery of such trades as will enable them to become independent and selfsustaining citizens. All deaf persons between the ages of 6 and 21 years residing in the state and not of unsound mind or dangerously diseased in body, or of confirmed immorality, or incapacitated for useful instruction by reason of physical disability, are eligible for admission to the school, and all pupils are entitled to 10 years of attendance. Upon special petition approved by the president, by any pupil who has completed the course of 10 years, he may be allowed 2 additional years. Pupils may be expelled for sufficient cause. When there is room nonresident deaf persons may be admitted to the school upon payment in advance of a year's cost of maintenance. In all cases where a person to be sent to the school is too poor to pay for necessary clothing and transportation the expenses are to be paid by the president of the school and charged against the county of the deaf person's residence. (R.C. 1907, §§ 1157, 1168 ff.)

## COMPULSORY EDUCATION.

Every parent, guardian, or person having custody of any child who is too deaf to be educated in the public schools must send the child, if of lawful school age, to the institution for the deaf for six months of each school year for the period of eight years, unless the child is taught in a private school, at home, or in a similar institution in another state, in such branches as are taught in the state institution, or unless the child be excused by the authorities on account of physical or mental disability; provided that the child must be required to attend the private school or institution, as provided for above, not less than six months of each year for eight years, or until he has arrived at the limit of the lawful school age. The school district clerks of each county must annually report to the county superintendent of schools the names, ages, and addresses, and the names of parents and guardians, of every deaf person between the ages of 5 and 21 years residing in the school district. The county superintendent must send a complete list of the names, ages, and addresses of all such persons in their county to the president of the school for the deaf. (R.C. 1907, §§ 1172 ff.)

## NEBRASKA.

References:
Revised Statutes of Nebraska, 1913.
Session Laws, 1915.

## sChool for the deaf.

The board of commissioners of state institutions has the oversight and general control of the Nebraska School for the Deaf. The purpose of the school is the physical, moral, and intellectual culture and training of the deaf, to the end that they may be returned to society capable of becoming self-sustaining and useful citizens. All deaf and dumb persons and those deaf to such an extent that they can not acquire an education in the common schools of the state, who are of suitable age and capacity and of good moral character, are entitled to an education in the institution for the deaf without charge. The parents or guardians must furnish suitable clothing and traveling expenses and support the pupil during the summer vacation, but if they do not do so the county of his residence is charged with the expense of his clothing and transportation home, and it must collect from the parent or guardian, if the person is a minor, or from himself if he is an adult. In all cases where the parent or guardian is unable to pay the necessary expenses and the pupil is a pauper the county of his residence must pay. Persons not residents of the state may avail themselves of the benefits of the
school by complying with the condition of admission for citizens of the state and paying in advance a sum fixed by the governing board. All pupils must be trained in the school by the oral, aural, and lipreading method to the exclusion of the deaf alphabet and sign languages, unless incapacitated by mental defects or malformation of the vocal organs. (R.S. 1913, §§ 7187, 7210 ff; Laws 1915, p. 293.)

## COMPULSORY EDUCATION.

All persons between the ages of 7 and 18 years who by reason of partial or total deafness are unable to obtain an education in the public schools are required to attend the state school for the deaf, unless they are being privately or otherwise educated. Each county superintendent of common schools must report to the superintendent of the state school for the deaf the name, age, and address of every deaf person and of every person deaf to such an extent as to be unable to acquire an education in the common schools, who resides in his county and is between 6 and 21 years of age. ( $R . S$. $1913,8 \S 6924,6897$.)

## NEVADA

## Reference:

Revised Laws of Nevada, 1912.

## education of the deaf.

The superintendent of public instruction is authorized to make arrangements with the directors of any institutions for the deaf and dumb in the states of California or Utah for the admission, support, education, and care of the deaf and dumb of the state.

Upon the application under oath of a parent, relative, guardian, or nearest friend of any deaf or dumb resident of the state, to the effect that by, reason of deafness or dumbness such person is disqualified from being taught by the ordinary process of instruction and education, and that they are unable to pay for his support, education, and instruction in any of the institutions mentioned above, filed with the board of county commissioners of the proper county, if the board is satisfied with the truth of the statements, it may make application to the superintendent of public instruction for the purpose of having him issue a certificate to that effect, which certificate being produced is the authority of the directors of any of the prescribed institutions for receiving the deaf or dumb person.
All deaf and dumb persons that are not mentally or physically incapacitated to receive an education or instruction, that are free from offensive or contagious diseases, and are unable to pay for their support, education, and instruction in any of the institutione specified, and whose parent, relative, guardian, or nearest friend is unable to pay, are entitled to the benefits of these provisions, and the county of the person's residence must furnish the necessary expenses for carrying the person to the office of the superintendent of public instruction, who must make all necessary arrangements for carrying him to an institution at the expense of the state. All deaf or dumb persons over 21 years of age seeking admission into the institutions must be bona fide residents of the state for five years previous to the filing of their applications. (R.L.1912, §§ 1702 ff.$)$

## NEW HAMPSHIRE.

## References:

Public Statutes and Laws of New Hampshire, 1901.
Supplement, 1918.
Care and education of the deaf and dumb.
Upon recommendation of the state board of charities and correction, assistance is furnished to deaf and dumb persons in such amounts, and at such asylums and schools or other institutions designed for the purpose, as the governor and council direct. The furnishing of such assistance does not affect the settlement of any person nor hisright to vote. (P.S.1901, p. 279 ; Supp. 191s, p.158.)

## NEW JERSEY.

## References:

Compiled Statutes of New Jersey, 1910.
Session Laws, 1911.

## instruction and maintenance of the deaf.

The governor or person administering the government has supervision of the instruction and maintenance of the deaf and dumb. Any deaf and dumb person of suitable age and capacity for instruction is entitled to the benefits of these provisions. All applications for admission of pupils as beneficiaries of the state must be accompanied by the certificate of two reputable freeholders, residents of the district in which the applicant resides, which must set forth the age, capacity of the pupil, and the ability or inability of the parents, guardians, or custodian of the pupil to pay any part of the expense for his tuition', care, and maintenance. Such certificate must be approved by the judge of the court of common pleas of the applicant's county of residence after he has satisfied himself of the truth of the statements in the certificate. The governor has the power to receive and decide upon all applications for the benefit of this provision. The regular term of instruction is three years, but upon application of the pupil indorsed by the principal of the institution the governor may extend the term to not more than eight years, and upon further application the governor may again extend the term to any number of years. The governor has the power to withdraw the name of any pupil from the list of beneficiaries if it appears that such pupil was improperly admitted or after a fair trial is found incapable of instruction. An annual sum of $\$ 300$ is appropriated to be applied for the instruction of beneficiaries under these provisions in some suitable and convenient institution, and whenever the governor is satisfied that the resources of any pupil or his parents or guardians are insufficient to defray the expense of clothing, he may cause an additional sum not to exceed $\$ 30$ a year for each pupil to be paid. Whenever he is satisfied that an applicant or his parents or guardians are able to pay part of the expense of instruction, but not able to defray the whole expense, the governor may cause to be paid such proportion of the expense as seems proper. If a deaf person entitled to the benefits mentioned becomes a legal charge upon the overseers of the poor of any township, they must immediately make application to the governor in his behalf, and if heis placed in an institution for instruction the expense of conveying him to and from the institution and of supplying him with suitable clothing must be defrayed by the township.

Any parent, guardian, or custodian who makes application for the admission of any deaf and dumb persons to the institutions coming under these provisions waives all right to remove such person either permanently or for a limited time. Any inmate may be discharged upon the request of the governor on the recommendation of the principal or superintendent of the institution and he may also be granted a leave of absence for a limited time. Any male person admitted to any of the institutions may be paroled into the custody of his parents, guardians, or any fit person under such conditions that he may be liable at any time to be taken back to such institution if the conditions of his parole are violated or if, in the judgment of the state commissioner of charities, for any cause his welfare may so require. In case of such parole any liability upon the state for support ceases during the time such pupil is out on parole. (C.S. 1910, pp. 1896 ff.)

## sChOOL FOR THE DEAF.

The general control and management of the New Jersey School for the Deaf is vested in the state board of education. The school is maintained for the purpose of training and educating deaf children, and deaf persons of suitable age and capacity for instruction who are legal residents of the state and not over 21 years of age are entitled
to the privileges of the school for such a period of time, not exceeding 14 years, as the board of education determines. ${ }^{1}$
Applications for admission to the school must be made by the parent, guardian, or friend of a proposed pupil in such manner as the board may require, but each application must be accompanied by a certificate from the judge of the inferior court of common pleas, or the county clerk of the applicant's county of residence, the chosen freeholder or clerk of the township, or the mayor or other executive officer of the city, borough, or other municipality in which the applicant resides, setting forth the facts as to the applicant's residence, age, circumstances, and capacity, and the ability or inability of such applicant or his parents or guardian to pay any part of the expense of his care and maintenance. Whenever more persons apply for admission at one time than can be properly accommodated in the school, the board must so apportion the number received that each county shall be represented therein in the ratio of its deaf population to the total deaf population of the state. When it is found in the judgment of the board that any pupil from want of capacity or other cause is not capable of receiving the benefits designed to be conferred or that the retention of any pupil may be detrimental to the interests of the school, the board may shorten the term of instruction, or dismiss from school such pupil upon reasonable notice given to his parents or guardians.
The expense for teaching, maintaining, and clothing the pupils, not to exceed $\$ 76$ for any three months for each pupil, is paid by the state. If the board is satisfied that the resources of any pupil or his or her parents or guardian are sufficient to defray either the whole or part of the expense, the board may require that they pay either the whole or such portion of the annual expense as the board thinks just and equitable. (C. S. 1910, pp. 1898 ff, 4790 ff.)

## special classes for the deaf.

In each school district where there are 10 or more blind or deaf children who are not cared for or who can not be cared for in an institution a special class or classes must be organized by the board of education for their instruction, no class to contain over 15 pupils. Such classes must be discontinued when proper provision is made for the care and education of the children by the state. (Laws 1911, p. 518.)

## NEW MEXICO.

## Reference:

New Mexico Statutes, 1915.

## sCHOOL FOR THE DEAF.

The New Mexico Asylum for the Deaf and Dumb is under the control and management of a board of regents consisting of five members, not more than three of whom may belong to the same political party, who are appointed by the governor with the consent of the senate for terms of four years. They receive no compensation other than actual expenses. They make their own rules and regulations for meetings and the care of the institution, and report to the governor biennially. All deaf or mute residents of the state between the ages of 8 and 21 years are entitled to instruction and care in the school free of charge. Deaf children from other states and deaf Indian children under the control of United States Indian agents may be admitted into the school under such rules and regu-
${ }^{1}$ According to the superintendent of the school the minimum age for admission is 6 years, and the term of instruction is ordinarily 10 years.
The Compiled Statutes ( $p p .1899 . f$ ) also contain provisions of an earlier law, fixing the age limit at not less than 8 years, and the term of instruction at 3 years, but providing that the board might extend the term for a term not to exceed 8 years, and in meritorious cases might further extend the term for a period not exceeding 3 additional years. These provisions also declare the object of the school to be the instruction and maintenance of indigent deaf-mutes.
lations as are prescribed by the board and upon the payment or guaranty of at least $\$ 225$ for the school year on the basis of nine months for each year. (Stat. 1915, §§ 5101 ff.)

## COMPULSORY EDUCATION.

It is the duty of the clerks of the school districta and boards of education to report to the county school superintendents the name, age, sex, residence, and the address of the parent or guardian of every deaf person of school age in their district. This report must in turn be sent to the superintendent of the school for the deaf, who must notify the parents to send such children to the school for proper instruction at a time fixed by him. The school directors of every achool district are empowered and required to compel the sending of such children to the school for the deaf. The failure to comply with this requirement constitutes a misdemeanor. If any parent or guardian is unable by reason of poverty to furnish such child with suitable clothing and traveling expenses and the probate judge of his county of residence certifies that fact, then the school must pay for the cost of the same. (Stat. 1915, §5104.)

## NEW YORK.

## References:

Consolidated Laws of New York, 1909 and 1910. Session Laws, 1912, 1919, 1917.

## sChools for the deaf.

All institutions for the instruction of the deaf and dumb in the state are private institutions, but they receive aid from the state and are subject to visitation by the commissioner of education and by the state board of charities. (C. L. 1910, Vol. VIII, pp. 206 ff; C. L. 1909, Vol. V, p. 3689.)

Upon the application of any parent, guardian, or friend of a deafmute child within the state over the age of 5 and under the age of 12 years, the overseer of the poor or any supervisor of the town where the child is must place such child in The New York Institution for the Deaf and Dumb, The Institution for the Improved Instruction of Deaf-Mutes, The Le Couteulx Saint Mary's Institution for the Improved Instruction of Deaf-Mutes in the city of Buffalo, The Central New York Institution for Deaf-Mutes at Rome, The Albany Home School for the Oral Instruction of the Deaf at Albany, or in any other institution in the state for the education of deaf-mutes as to which the state board of charities shall have filed with the commissioner of education a certificate to the effect that the institution is prepared for the reception and instruction of such pupils. Whenever a deaf-mute child under the age of 12 years becomes or is liable to become a charge for its maintenance on any of the towns or counties of the state, the overseer of the poor of the town or the board of supervisors of the county must place such child in one of the institutions above mentioned. The county from which a child was appointed in pursuance of these provisions must pay for his board, tuition, and clothing an amount not to exceed $\$ 350$ per year until he attains the age of 12 years, unless the directors of the institution to which the child has been sent find that he is not a proper subject to remain in the institution. (C. L. 1910, Vol. VIII, pp. 211 ff; Laws 1917, p. 3s2.)
Every deaf and dumb person 12 years of age or over who has been a resident of the state for one year immediately preceding the application, or, if a minor, whose parent or parents, or, if an orphan, whose nearest friend has been a resident in the state for one year immediately preceding the application, is eligible to appointment as a state pupil in one of the deaf and dumb institutions of the state, authorized by lar to receive such pupils. The regular term of instruction for such pupils is five years, but the commissioner of education may in his discretion extend the term of any pupil for a period not exceeding three years. The commissioner may continue such pupils as state pupils for an additional period of three years for the purpose of pursuing a course of study in the
higher branches of learning, but the number of pupils continued each year in such course may not exceed 30 in any one institution and they must be recommended by the trustees of the institution which they attend before such extension of time is granted. (C. L. 1910, Vol. VIII, pp. 207 ff; Laws 1912, p. 405.)
The expense for board, lodging, and tuition of state pupils is paid by the state. The county supervisors of the county from which a state pupil is appointed must raise $\$ 30$ a year for suitable clothing for him if the parents or guardians are unable to pay for the same. (C. L. 1910, Vol. VIII, pp. 208 ff.)

DEAF STUDENTS IN GENERAL INSTTTUTIONS.
Whenever a deaf person who is a citizen of the state and a pupil in actual attendance at a college, university, or technical or professional school in the state authorized by law to grant degrees, other than an institution established for the regular instruction of the deaf, is designated by the trustees as a fit person to receive such aid, there must be paid by, the state for the use of the pupil $\$ 300$ per year, to be used by him to obtain aid in receiving instruction in his studies. The trustees may not recommend any such person who is not in good and regular standing and who is not working for a degree from the institution. (Laws 191s, pp. 321 ff.)

## NORTII CAROLINA.

References:<br>Pell's Revisal, 1908.<br>Gregory's Supplement to Pell's Revisal, 1913. Gregory's Revisal Biennial, 1915<br>Session Laws, 1917.

## SCHOOLS FOR THE DEAF.

The North Carolina School for the Deaf is under the management of a board of seven directors, not more than two of whom may be from the same county, appointed by the governor with the consent of the senate for terms of six years. The board must provide for the pupils in the school instruction in the branches of study prescribed for the public schools and in such other branches as may be of special benefit to the deaf. As soon as practicable the boys must be instructed in such mechanical pursuits as may be suited to them, and in practical agriculture and related subjects; and the girls must be instructed in sewing, housekeeping, and such arts and industrial branches as may be useful to them in making themselves self-supporting.

All white deaf-mutes between the ages of 8 and 23 years, who have been residents of the state for two years, and who are not of confirmed immoral character, or unsound of mind, or incapacitated by physical infirmity for useful instruction, are eligible to receive free tuition and maintenance at the school according to rules prescribed by the board. Nonresident deaf persons may be received in the school, when there is room, upon payment of charges and according to rules fixed by the board.

Colored deaf-mutes, residents of the state, not of confirmed immoral character, or imbecile, or unsound in mind, or incapacitated by physical infirmities for useful instruction, who are between the ages of 7 and 21 years, may be admitted to the State School for the Blind and the Deaf at Raleigh, where a separate department is maintained for the colored deaf and blind.

When it appears to the satisfaction of the governor, upon affidavit of two respectable citizens, that the parents of any deaf-mute child are unable to provide the child with clothing and for expenses to and from the institution, the governor must order the amount to be paid by the state. Such sums are chargeable to the county from which the child came. The amount charged may not exceed $\$ 30$ per year for any pupil in addition to such amount as is required to defray all necessary traveling expenses of the pupil. ( $P . R$. 1908, §§ 420S, 4191; G.S. P. R. 191s, § 4199; G. R. B. 1915, §§ 4202 ff; Laws 1917, p. 88.)

## COMPULSORY EDUCATION

Parents, guardians, or custodians of any deaf child between the ages of 8 and 15 years who fail to send the child to some school for the instruction of the deaf for at least five terms of nine months each are guilty of a misdemeanor. It is the duty of the school census taker to report the name, age, and sex of all deaf children in his district and the number of deaf and dumb between the ages of 6 and 21 years, designating the race and sex, and the address of the parent or guardian of such children, to the county superintendent of education, who must send the report to the school for the deaf. (P. R. 1908, §§ s856c, 4144; G. R. B. 1915, §§ 4148, 4206a.)

## NORTH DAKOTA.

## Reference:

 Compiled Laws of North Dakota, 1918. sCHOOL FOR THE DEAF.The general management and control of the North Dakota School for the Deaf is vested in the board of control of state institutions. The board investigates the condition and management of the school at least once every six months and makes reports of such investigations biennially to the governor. All deaf residents of the state, of suitable age and capacity, are entitled to receive an education in the school at the expense of the state. In all cases where the pupil is not suitably provided with clothing he must be furnished with it by the superintendent, who must collect the cost from the county of his residence, which must, in turn, collect the cost from the pupil or his parents; these are, however, exempt from paying such cost if it appears from the affidavits of three disinterested citizens of the county that they are unable to do so. The counties of residence of indigent deaf pupils pay for their traveling expenses. Deaf persons from other states may be admitted into the school when there is room upon the payment of $\$ 180$ a year in advance. (C. L. 1918, 88248 ff, 1680, 1688 ff.)

## COMPULSORY EDUCATION.

Every parent, guardian, or other person having charge or control of any deaf person between the ages of 7 and 21 years must send him to the state school for the deaf for the entireschool year, unless excused by the superintendent of the school. Failure to comply with this provision constitutes a misdemeanor. The board of education of the city or village, or school board of the district, may excuse the person having control of such deaf person from this duty when he can satisfactorily show that the person is being taught in another institution approved by the county school superintendent, or that such person is actually necessary to the support of the family, or that he has already acquired the branches of learning taught in the public schools, or that he is physically or mentally incapable of attending school. (C. L. 1919, $8 \$ 1342$ ff.)

In connection with the school census an enumeration is made of the names and ages of all deaf and dumb persons between the ages of 5 and 25 years, and the names and post-office addresses of the parents or guardians, a copy of which is sent to the superintendent of the school for the deaf. (C. L. 191s, §8 $1195 . f$. )

## OHIO.

References:
General Code of Ohio, 1910.
Session Laws, 1911, 1917.
SCHOOL FOR THE DEAF.
The State School for the Deaf, as well as the state penal, correctional, and benevolent institutions in general, is governed by the Ohio board of administration. All deaf persons, 7 years of age or over, residents of the state, who are too deaf to be educated in the public schools may be admitted to the school for the deaf if
the superintendent and board think them suitable persons to receive instruction at the school. The term of instruction is for no longer than 13 years; no person addicted to immoral habits or having a contagious and offensive disease may be admitted. Pupils may be permitted to remain in the school such portion of the 13 years as their progress justifies, and if at any time the superintendent and board determine that a pupil is not making sufficient progress in his work to justify his continuance as a pupil, he may be returned to his parents, guardian, or the infirmary of the county from which he came. The pupils are taught the arts and trades of shoemaking, printing, bookbinding, cutlery, fitting and making wearing apparel for females, and such other trades and arts as are found to be adapted to the capacities and wants of the deaf.
Deaf and blind persons are admitted to the school for the deaf, or the board of administration may provide for the education of a deaf and blind child at its home. (G. C. 1910, §§ 1872 ff; Laws 1911, p. 219.)

COMPULSORY EDUCATION.
Education is compulsory for persons entitled to enter the school for the deaf, and the truancy laws in general apply to them. (G.C. 1910, § 7778.)

CENSUS OF THE DEAF.
In connection with the school census there is an annual enumeration of deaf or mute children between the ages of 6 and 21 years. Quadrennially, at the time of taking a list of property for taxation, an enumeration is made by each assessor of all deaf and dumb persons in his township or precinct and the returns are filed with the county auditor. (G. C. 1910, §§ 3560,7795 .)

## DAY BCHOOLS FOR THE DEAF.

Deaf persons 3 years of age or over may be educated in day schools established by the superintendent of public instruction on application by the board of education of a school district, provided that the average attendance is not less than three, and the state pays $\$ 150$ for each deaf pupil given instruction in such schools for nine months in the school year and a proportionate amount for each deaf pupil given instruction for a part of the school year less than nine months. The oral system must be taught in these schools and if, after a fair trial of nine months, any pupil is unable to learn such method, then he may be taught the manual method in a separate school, providing thereare not fewerthan three pupilsin attendance. After the establishment of such a school by any school district persons of sound mind who by reason of defective hearing can not profitably be educated in the public schools may be compelled to attend one of them or a state institution. An inspector, appointed by the state school commissioner, inspects each school twice a year and reports to the commissioner as to the method of instruction, the condition of the schools, and such other matters as may be of interest in the education of the pupils. (Laws 1917, p. 15s.)
care of the indigent deaf.
Any incorporated association organized for the purpose of providing a home for deaf and dumb persons may contract with the board of county infirmary directors of any county or with the proper officers of any corporation infirmary for the care and maintenance of deaf persons who are inmates of such infirmaries, or who under the law of the state may be entitled to admission in the infirmary. The infirmary pays to the home annually a sum equal to the per capita cost of maintaining inmates in the infirmary Deaf and dumb persons who are inmates of an infirmary and who in the judgment of the board of state charities should be removed to homes as specified above may by the order of the board be removed to such homes; and in case of such removal the transportation and maintenance expenses are paid by the infirmary from which they were removed. (G. C. 1910, \&8 10190 If.)

## OKLAHOMA.

## References:

Revised Laws of Oklahoma, 1910.<br>Session Laws, 1911, 1913.

## SCHOOLS FOR THE DEAF.

The Oklahoma School for the Deaf is under the direction and control of the state board of education. The purpose of the school is the physical and moral and intellectual culture and training of the deaf, to the end that pupils may be returned to society capable of becoming self-sustaining and useful citizens. All deaf residents of the state and those deaf and dumb to such an extent that they can not acquire an education in the common schools, who are of suitable age and capacity and of good moral character, are entitled to an education in the school without charge.

On admission of a pupil the parents or guardian must furnish suitable clothing for him, must pay his transportation to and from the school, and all incidental expenses such as for dental work, and must support him during the summer vacation. If the parents or guardians for any reason are unable to provide for the pupil, the superintendent, upon proof from the county judge of the county where the pupil resides, must supply the pupil and collect the expenses from the board of county commissioners of the pupil's county of residence. Deaf persons not residents of the state may be admitted into the school by complying with the conditions of admission for citizens of the state and paying the superintendent of the school a sum to be fixed by the board, in advance. (R.L. 1910, §§ 6986 ff; Laws 1911, p. 121.)
The Institute for the Deaf, Blind, and Orphans of the Colored Race is also under the direction and control of the state board of education. The purpose of the school is to care for, teach, and train the unfortunate of the colored race in the rudiments of English as in graded schools, and the practical and primary industries, such as may fit them for useful citizenship and make them self-helpful and self-reliant. (R. L. 1910, §§ 7014 ff; Laws 1911, p. 121.)

## deaf students in general institutions.

The state board of education may provide, for the higher education of those pupils who may qualify themselves to enter college, a sum not to exceed $\$ 300$ to a pupil in any one year, and for a number not to exceed 10 pupils in any year. (Laws 1913, p. 385.)

## COMPULSORY EDUCATION.

Every parent, guardian, person or persons, corporation, or association, having control or charge of any deaf child between the ages of 7 and 21 years, is required to send the child to some suitable school for the deaf for a period of at least six months a year, unless the child is given skilled private instruction for the same length of time each year. (Laws 1913, p. s86.)

## OREGON.

## References:

Lord's Oregon Laws, 1910.
Session Laws, 1913.
school for the deaf.
The Oregon state board of control, composed of the governor, the secretary of state, and the state treasurer, ex officio, manages the affairs of the Oregon State School for the Deaf. The school is a free training school for such deaf persons as are enrolled, but no pupil may stay there more than 10 years except in special cases, when the board may extend the time from year to year. No pupil may be detained in the school after it has been ascertained that he has ceased to make progress or is not being benefited, and a pupil may be dropped at any time by the board for cause. Admission is secured by making application to the superintendent direct or through the county school superintendent. The necessary traveling expenses of all indigent deaf children going to and rom the
institution, together with the cost of all clothing necessary for their comfort, is borne by the county of which they are residents. (Laws 1918, pp. 120, 130, 684.)

## COMPULSORY EDUCATION.

Each truant officer of the state must at the beginning of each school month report to the county judge of his county the name, age, and residence of each deaf child between 8 and 18 years of age, with the names of his parents or the person in charge of him. He must also make a statement as to whether the parents or guardians are able to educate such child or whether the interests of such child would be promoted by sending it to the state school. The child may be brought before the judge for a hearing and if the judge is satisfied that the child is not being properly educated at home and will be benefited by attending the state school and is a suitable person to receive instruction there, he may send the child to the school. All expenses are paid by the child's county of residence if the parent is unable to pay. These provisions apply only to children who are entitled to instruction at the school under the rules and regulations of the board of control. The clerks of the several school districts must report the names, addresses, and ages of all deaf children between the ages of 6 and 14 years within their respective districts, together with names of parents of such children as come or are brought to their attention, to the county school superintendent of the county, who must report them to the superintendent of the school for the deaf. (L.O.L. 1910, §41s0; Laws 1913, p. 68s.)

## PENNSYLVANIA.

## References:

Purdon's Digest, 1sth edition, 1700 to 1909.
Session Laws, 1911, 191s, 1917.
Appropriation Acts, 1915, 1917.
schools for the deaf.
The Pennsylvania State Oral School for the Deaf is governed by a board of trustees consisting of nine citizens appointed by the governor for a term of four years. Subject to the approval of the governor, the board of trustees makes such rules and regulations as it thinks necessary and appoints such persons as it thinks necessary in the maintenance of the school at such compensation as is fixed by the governor. No part of the appropriation for this institution becomes available until the management of the institution files with the board of public charities and the auditor general a declaration that all pupils received in the institution under 16 years of age who have not been pupils in any other institution of a similar character are to be taught exclusively by the oral method, unless physically incapable of being so taught. (Laws 1913, p. 169; Appropriation Acts 1915, p. 188; Appropriation Acts 1917, p. 278.)
An appropriation is made by the state to the Pennsylvania Institution for the Deaf and Dumb for the education and maintenance of state pupils. No pupil may be educated at the expense of the state under the age of 10 , or over the age of 20 years, or for a longer period than six years. Indigent children resident anywhere within the state must be received into the school and asylum and maintained and educated gratuitously, so far as the funds of the institution will admit. Where more children are offered for the benefit of this institution than can be received at any one time, the president and directors must so apportion their number among the several counties according to their representation (when application is made) that every county may equally receive the benefits of the same. Preference must always be given to the children of the state when there are not accommodations for all who apply. The appropriation does not become available until the managers of the institution file with the board of public charities and the auditor general a declaration that all pupils received into the institution will be taught exclusively by the oral method unless physically incapable of being taught. (P. D., 1sth ed., p. 1282; Appropriation Acts 1917, p. 265.)

An appropriation is also made by the state to the Western Pennsylvania Institution for the Instruction of the Deaf and Dumb for the education and maintenance of state pupils upon the condition that the management of the school file with the board of public charities and the auditor general a declaration that all pupils received in the school under 16 years of age who have not been pupils in any other institution of a similar character are to be taught exclusively by the oral method unless physically or mentally incapable of being taught by such method. (Appropriation Acts 1917, p. 275.)
The Home for the Training in Speech of Deaf Children Before They Are of School Age is governed by a board of five trustees appointed by the governor for terms of five years. Appropriations to the institution are conditioned upon the managers filing with the board of public charities and the auditor general a declaration that all pupils received into the institution will be taught exclusively by the oral method. (P.D., 18th ed., p. 1284; Appropriation Acts 1917, p. 280.)

## DAY gCHOOLS FOR THE DEAF.

The board of school directors of any school district within the state having a population of more than 20,000 inhabitants, and having within the limits of the city or township, in which the school district is, eight or more deaf-mute children of proper age for attending school, are authorized to open and maintain a special school for the education and training of such deaf-mutes, either in the sign language or articulation, as to the board of directors seems best for such children. Any such school so organized is a part of the common-school system of the district. Deaf-mute children may be sent from any school district in the county in which such school is established upon payment by the district to the treasurer of the school board by which the school is maintained of its proportionate share of the expense of maintaining the school. The per capita cost of education of the deaf-mute children may not exceed $\$ 150$ for any one year. (P.D., 19th ed., p. 128s.)

## education of the deaf.

The county or district superintendent, attendance officer, or secretary of the board of directors in every school district of the Commonwealth must report to the medical inspector of the school district every deaf child in the district, between the ages of 8 and 16 years, who is not being properly educated and trained. The medical inspector must examine the child and report to the board of school directors whether it is a fit subject for education and training. If the child is reported to be a fit subject, but can not be properly educated in the public schools of the district, the board of school directors must secure proper education for it, but when it is necesasary to educate such children outside the public achools their parents or guardians must, if able to do so, pay to the district the expense necessarily incurred. (Laws 1911, p. 383.)

## census of the deaf.

At the time of taking the septennial census the assessors or other officers must make out a separate list of the deaf and dumb persons, if any, resident in their respective townships, towns, wards, or districts, distinguishing their sexes, color, and as nearly as may be, their several ages; and it is the duty of the commissioners of the several counties to make returns of the census to the governor. (P. D., 18th ed., p. 586.)

EXEMPTION OF THE DEAF.
Deaf or dumb persons are specially exempted from the penalties of the law against tramps. (P. D., 13th ed., p. 5023.)

Care of the indigent deaf and dumb.
The overseers and directors of the poor of any poor district maintaining an almshouse for its indigent poor may enter into a contract with any association in the state organized for the purpose of providing a home for deaf and dumb persons for the care and main-
tenance at such home of any indigent deaf and dumb person who may be an inmate of the almshouse of the poor district or who may be entitled to relief from the district. The board of public charities or any of its authorized agents may direct any poor district to remove any deaf and dumb inmate of the almshouse to the care of any such association, and in the event of the failure of the overseers or directors to comply with such order, the contract and removal of such inmate may be made and carried out by the board of public charities or its authorized agents. Whenever a contract for such care and maintenance of a deaf and dumb person is made, whether by the poor district itself or by the board of public charities on its behalf, the poor district is required to pay to the association annually a sum equal to the per capita cost of maintaining the inmates of its almshouse. (Laws 1917, p. 223.)

## PORTO RICO.

## Reference:

Revised Statutes and Codes, 1911.
care of the deaf and dumb.
The director of charities must reserve the number of places the executive council directs, in the Boys' Charity School and in the Girla' Charity School, for indigent deaf and dumb children. The director is empowered to prepare and put into force, with the approval of the executive council, special regulations for the custody, care, and instruction of these children. It is his duty in making such regulations to make every effort to instruct the children in work suitable to their capacities, with a view to the end that upnn their discharge from the schools they will in the largest measure possible be able to provide for their own support. Children may be admitted at any age not exceeding 21 years and may remain in the school until they have reached that age. Provisions of law relative to the apportionment of places in these schools to the respective municipalities must be followed as a general rule in assigning them places, but the director of charities, with the approval of the executive council, may depart therefrom when in his opinion such departure is urgently necessary. (R.S. 1911, \$192.)

## RHODE ISLAND.

## Reference:

General Laws of Rhode Island, 1909.

## SCHOOL FOR THE DEAF.

The general management and control of the Rhode Island Institute for the Deaf is vested in a board of trustees consisting of the governor, lieutenant governor, and nine citizens of the state, six men and three women, appointed by the governor with the consent of the senate for terms of six years, who receive no compensation for their services; if the nominations of the governor are not approved by the senate, the latter fills the positions by election. The object of the school is to furnish to the deaf children of the state oral instruction and the best known facilities for the enjoyment of such a share of the benefits of the system of free public education as their afflicted condition will admit of. All deaf persons between the ages of 3 and 20 years, legal residents of the state and of sufficient capacity for instruction, whose hearing or speech or both are so defective as to make it inexpedient or impracticable to attend the public schools to advantage, may attend the institution without charge, for such a period of time in each individual case as is thought proper by the board of trustees and under such rules and regulations as they establish. (G. L. 1909, pp. $374.0 f, 179 . f f)$
education of the deaf. ${ }^{1}$
The governor, on recommendation of the state board of education, upon application of the parent or guardian, may appoint any blind or deaf child, being a legal resident of the state, who appears to the

[^32]board to be a fit subject for education, as a state beneficiary at any suitable institution or school for a period of not over 10 years. Upon special recommendation by the state board of education the governor may extend the period. The board of education supervises the education of the beneficiaries, and no child appointed as above may be withdrawn from any institution or school except with their consent or the consent of the governor. The board may expend in the purchase of necessary clothing for state beneficiaries a sum not exceeding $\$ 20$ in any calendar year for a single child. (G. L. 1909, pp. 378 ff.)

## COMPULSORY EDUCATION.

Every person having under his control any deaf child between the ages of 7 and 18 years, whose hearing or speech or both is so defective as to make it impracticable to attend the public schools to advantage, who is not mentally or otherwise incapable, must send such child to the school for the deaf for such period as the trustees of the school may think expedient; but a person is exempt if he can prove to the satisfaction of the board of trustees that the child has received or is receiving under private or other instruction an education suitable to his condition. No child may be removed to the school or taken away from the custody of its parent or guardian except as a day scholar, unless the parent or guardian is an improper person to have such custody, and the supreme court has jurisdiction in habeas corpus proceedings to examine into and revise the findings of the board of trustees. (G. L. 1909, p. 376.)

## SOUTH CAROLINA.

Refrerences:
Code of Laws of South Carolina, 1912.
Session Laws, 1915.
school for the deaf.
The supervision and control of the South Carolina School for the Deaf and Blind is vested in a board of commissioners, which consists of the superintendent of education ex officio and four members appointed by the governor, three of whom must be residents of Spartanburg County. The appointed members serve for terms of eight years and receive no compensation other than expenses for not more than two meetings a year. All deaf-mutes of the state who are of proper age and mental capacity (each case to be decided by the board of commissioners) are admitted to the benefits of the school. The whole or part of the expenses of the applicants are paid by the state, according to the opinion which the board forms as to the pecuniary condition of the applicant; but if the number of applicants exhausts the annual appropriation, the selection is made according to the board's opinion of the deserts of the applicants. The board, tuition, and incidental expenses of the pupils at the school are paid by the state, the sum not to exceed $\$ 150$ a year for one pupil, exclusive of traveling expenses, clothing, and medical attendance, which the commissioners must place upon the most economical scale. (Civil Code 1912, §§ 1918 ff; Laws 1915, p.65.)

## DEAF gTUDENTS IN GENERAL INSTITUTIONS.

Upon recommendation by the superintendent and faculty of the state school for the deaf and blind the board of commissioners may appropriate $\$ 150$ annually for the higher education of any graduate who matriculates in any course offered in a chartered college. The board must make suitable regulations for such students. Not more than four graduates may be thus aided in any one year. (Civil Code 1912, 8 1927.)

## SOUTH DAKOTA.

## References:

Compiled Laws, 1918.
Session Laws, 1915.
sCHOOL FOR THE DEAF.
The general supervision and control of the South Dakota School for the Deaf is vested in the state board of charities and corrections. All residents of the state between the ages of 6 and 30 years
who are too deaf to receive the full benefit of the public achools and who are capable of instruction and free from contagious or chronic diseases may, upon application to the superintendent of the school for the deaf, be taught at the expense of the state at such school for nine years, but if in the judgment of the board and upon recommendation of the superintendent, a pupil is capable of receiving advanced instruction for the purpose of entering a college for the deaf, such pupil may attend the school for an additional period of three years without regard to his age. When there is room, deaf persons from other states may be admitted to the school upon payment for their board, tuition, and care. All pupils must be treated with the most considerate regard for their misfortune, and always with kindness and humanity, and the board must carefully enforce this provision. It is the duty of the person sending a child to the school to pay to the superintendent an amount of money sufficient to purchase for the child a return ticket to its home, and also to deposit $\$ 10$ additional which may be used in the purchase of clothing and defraying other incidental expenses of the child, and at the close of the school year, or whenever the child ceases to attend the school, the superintendent must furnish the child a return ticket and return the unexpended portion of the deposit to him together with an itemized statement showing all moneys expended by him for clothing and incidental expenses for the child. In case the parents of such a child are unable to pay the South Dakota railroad fare of the child and make the deposit above mentioned it is the duty of the board of county commissioners of the county of the child's residence to do so upon the requisition of the superintendent, approved by the board of charities and corrections. (C. L. 1919, pp. 47, 150 ff; Lave 1915, p. 656.)

## COMPULSORY EDUCATION.

If upon a complaint by the superintendent of the school for the deaf or by any other person, a county judge is satisfied after examination of witnesses that a deaf child resident of his county of proper age is being deprived of a proper education by the refusal or neglect of its parents, guardian, or custodian, he may order that such child be sent to some public or private institution for the education of the deaf. If the parents, guardian, or custodian are unable to pay for the transporting of the child to the institution then the county must pay. A penalty is imposed for the neglect or failure of any parent to obey the order of the county judge.
It is the duty of every county or city superintendent of schools to send to the superintendent of the school for the deaf the names of all deaf children of proper school age residing in his county or city whenever the residence of the deaf children within their jurisdiction becomes known to them, and the superintendent of the school for the deaf must take all necessary action to provide that the deaf children be given the advantages of proper education. (C. L. 1918, p. 595.)

## TENNESSEE.

## Reference:.

Thompson's Shannon's Code of Tennessee, 1917.

## SCEOOL FOR the deaf.

The general supervision and control of the Tennessee School for Deaf and Dumb is vested in the state board of control. Each senatorial district may send to the school two pupils free of charge in preference to all others, whether free or paying scholars. These pupils are selected by the senator representative and in making such selection preference is given to such indigent pupils as are unable to bear the expense of tuition. Application for admission to the school must be made within 40 days after the commencement of each school session. The terms of admission are the same for colored students as for white students and separate accommodations are made for them. Any deaf, dumb, and blind child whose parents are citizens of the state may be placed in either the school for the deaf or the school for the blind free of charge. (T. S. C. 1917, §§ 2660 ff, 2577a8, 2553.)

EXEMPTION OF THE DEAF OR DUMB.
All deaf or dumb persons in the state are exempt from the payment of poll taxes. (T. S. C., 1917, § 686.)

TEXAS.

## References:

McEachin's Civil Statutes of Texas, 1918.
Session Laws, 1913.
schools for the deaf.
The general control and management of the Asylum for the Deaf and Dumb is vested in a board of trustees, consisting of six qualified voters selected from different portions of the state by the governor, and appointed with the consent of the senate for terms of six years. The board meets at least once a month and makes a report to the governor annually. The members receive $\$ 5$ a day for time spent at their meetings, and 3 cents per mile for necessary traveling expenses.
A certain number of pupils at the asylum to be designated by the superintendent and board may each year receive instruction in the art of printing in all ite branches. (C.S. 1913, Arts. 171 ff; Laws 191s, p. 191.)

The superintendent of the deaf and dumb asylum may male such provision as he thinks necessary for the maintenance, care, and education of all children in the state who are deaf, dumb, and blind. Applications must be made to him by the parents of such children under rules prescribed by him, and such children must be placed in a reputable school established for the purposes just mentioned.

The government of the Deaf, Dumb, and Blind Asylum for Colored Youths is vested in a board of trustees, who are constituted like the board for the deaf and dumb asylum. The admission of all applicants to the asylum, their treatment, instruction, and continuance therein, all questions relating to their dismissal or removal or voluntary departure, etc., must be governed by the rules and regulations of the state asylum for white youths for the deaf and dumb and blind. (C. S. 1918, Arts. 209 .ff.)

## UTAH.

## References:

Compiled Laws of Utah, 1907.
Session Laws, 1911.

## ECHOOL FOR THE DEAF.

The government and control of the Utah School for the Deaf is vested in a board of trustees consisting of the attorney general and five resident citizens of the state, not more than three of whom may be members of the same political party, appointed by the governor with the consent of the senate. The citizen members of the board serve for terms of six years and receive no compensation other than actual expenses.

The purpose of the school is to provide a practical education for the deaf, the mute, and the deaf-mute of the state who are of sound mind and body, under 30 years of age, capable of receiving beneficial instruction, and incapacitated, on account of deafness or inability to speak, for instruction in the common schools; and to instruct such pupils in agriculture and in those mechanical trades and arts that tend to enable them to become self-supporting and useful citizens. All deaf residents of the state are entitled to the benefits of the school free of charge. In all cases where an applicant or an inmate of the school is too poor to pay for necessary clothing and transportation expenses, the county commissioners of his residence, after ascertaining that the facts are as represented, must pay the expenses. Pupils from other states may be received and instructed on such terms as the board may prescribe. (C.L. 1907, 88 2064, 2106 ff; Laws 1911, p. 188.)

## COMPULSORY EDUCATION

Every parent, guardian, or other person having control of any deaf or mute child between the ages of 8 and 18 years, who on account of its deafness or muteness is unable to be educated in the public schools, must send such child to the state school for the deaf for at least six months of each school year. The parent or any other person is excused from this duty if it can be shown to the satisfaction of the board of trustees of the school that the child is taught at home by a competent teacher in the same branches and for the same length of time as children are in the state school, or that such child has already acquired the branches of learning taught in the state school, or that the child is in such physical or mental condition as to render attendance inexpedient or impracticable. The failure to comply with this provision, after the proper person has been notified of its requirements, constitutes a misdemeanor.
The county school superintendents must include in their annual school census a list of persons between the ages of 5 and 30 years who are too deaf or too dumb to obtain an education in the public schools, and their names, ages, addresses, and names of their parents. (C. L. 1907, §§ 2117, 1791.)

## VERMONT.

## References: Public Statutes of Vermont, 1906. Session Laws, 1908, 1910, 1915, 1917. <br> commission for the deaf.

The governor is the commissioner of the deaf, dumb, blind, idiotic, feeble-minded, or epiieptic children of indigent parents, and constitutes the board for their instruction. He receives a salary of $\$ 50$ a year for his services as commissioner. (P.S. 1906, §§ 1166 ff.)
instruetion of the deaf.
The governor may designate beneficiaries to be educated at the American Asylum for the Education of the Deaf and Dumb at Hartford, Conn., the Clarke School for the Deaf at Northampton, Mass., the Mystic Oral School at Mystic, Conn., or the Austine Institution at Brattleboro, Vt., for a period of time that he thinks proper. He may designate one or more deaf persons to be educated within the state, when in his judgment adequate advantages exist for proper instruction, and the public good will be subserved thereby. The state pays for instruction and support at the school, but the traveling expenses of the deaf person must be paid by the town in which he resides, if the parents are unable to pay. The governor may provide for the instruction of deaf persons over 14 years of age in schools without the state which furnish instruction in such trades or lines of work as will be best calculated to enable the deaf person to be self-supporting. There is an appropriation of $\$ 2,500$ made for the governor to use at his discretion in making contracts with any person, association, or corporation for the care, education, and training of state beneficiaries after they have been discharged from the institution for their instruction.
The board of civil authority in each town must collect information as to the number of deaf persons in their town, and their age, condition, and circumstances, the ability of their parents to educate them, and whether, in the opinion of the board, the persons are proper subjects for the charity of the state, and whether they and their parents or guardians are willing that they should become beneficiaries of any of the institutions provided for the instruction of such persons. This information is sent to the county clerk, who returns the report to the governor. (P. S. 1906, §§ 1169 ff ; Laws 1908, p. 48; Laws 1910, p. 85.)
An appropriation of $\$ 50,000$ (payable in six yearly installments) was made in 1910 to the Austine Institution for the Deaf, upon condition that it should bind itself by a contract to the satisfaction of the governor that it will at all times receive, take, instruct,
and care for, at actual cost, all cuch deaf and dumb children as the governor as commissioner for the deaf may designate. This is a private institution created under the will of William Austine, but is subject to visitation and inspection by the board of control. (Laws 1910, p. 84; Laws 1917, p. 29.)

## COMPULSORY EDUCATION.

Any deaf child between the ages of 5 and 18, who is designated by the governor to any institution for the education of the deaf and blind in the state, must attend such designated school during its regular sessions for the period for which he is designated, unless he is mentally or physically unable to attend the school, or has already acquired knowledge of the branches required to be taught in the public schools, or is otherwise being furnished with the same education, provided that he may not be required to attend more than 40 weeks in oneschool year. Any parent or guardian who neglects or refuses to permit a child to receive instruction as above specified is liable to a fine of not more than $\$ 25$ nor less than $\$ 5$. (Laws 1915, p. 166.)

## VIRGINIA.

## References:

Pollard's Code of Virginia, 1904. Supplement, 1910.

BCHOOLS FOR TEE DEAF.
The government of the Virginia School for the Deaf and the Blind is vested in a board of visitors, consisting of six members appointed by the governor with the consent of the senate for terms of four years, and the superintendent of public instruction. In the institution there is one school for the education of deaf-mutes and another school, separate and distinct, for the education of the blind. The pupils of the school are selected, as the board may prescribe, among such persons as are unable to pay for maintenance and support to the extent of the means of the institution, and from other persons, residents of the state, on such terms for their maintenance and support as may be agreed upon, but in no case is there a charge for the education of the pupils. (P. C. 1904, $\$ \$ 1653 . f$.)

The Virginia State School for Colored Deaf and Blind Children is under the government of a board of five visitors appointed by the governor for terms of four years. Any deaf child of the colored race whose parents or guardians are residents of the state and who can not be educated in the public schools may be admitted to the school without charge for his education. (Supp. 1910, p. 656.)

## census of the deaf.

The clerk of each district school board must at the time of taking the school census also take a separate census of the deaf persons between the ages of 7 and 20 years residing within the school district, giving the sex, age, and residence of each, and return a copy to the district superintendent. The superintendent must consolidate the returns of the county and transmit them to the superintendent of the school for the deaf and the blind. (P. C. 1904, §146s.)

## WASHINGTON.

## Reference:

Remington's Codes and Statutes of Washington, 1915.
school for the deaf.
The general management and control of the State School for the Deafis vested in the state board of control. All deaf residents of the state between the ages of 6 and 21 years who are free from loathsome and contagious diseases are admitted into the school free. Deaf children from other states may be admitted into the school upon payment in advance of a sufficient amount to cover the cost of their maintenance and education. (R.C.S.1915, §§ 4387 ff.)

## COMPULSORY EDUCATION.

Every parent or guardian having custody of deaf children of the prescribed age must send them to the state school for the deaf. Upon satisfactory proof and evidence to the county school superintendent that such children are being properly educated at home or in some other suitable institution, the parent may be excused from this duty. If it appears to the satisfaction of the county commissioners that the parent is unable to bear the traveling expenses, the commissioners must pay such expenses. Any person failing to comply with this provision is guilty of a misdemeanor.

The clerks of the school districts must include in their annual reports the names of all the deaf persons in their district between the ages of 6 and 21 years. This report is transmitted to the county school superintendent, who in turn transmits it to the county commissioners, state board of control, and the superintendent of the State School for the Deaf. (R.C.S. 1915, §§ 4392 ff.)

## WEST VIRGINIA.

## Reference:

West Virginia Code, 1913.
sCHOOL FOR THE DEAF.
The general management and control of the West Virginia School for the Deaf and the Blind is vested in the state board of control. The board visits the school at least once in every six months, and one member must visit the school once a month. The control of the educational affairs of the achool is vested in the state board of regents; this board makes rules and regulations for the management of educational matters, prescribing the course of study to be pursued in the school. The course of instruction must be as extensive in the intellectual, musical, and mechanical departments as the capacities and interests of the pupils may require. (Code 191s, §§587, 595, 604, 2318.)
All deaf residents of the state who are of sound mind and not afflicted with any contagious disease, between the ages of 8 and 25 years, may be admitted to the school on application to the principal. Applicants are admitted in the order of their applications, and the principal must in each case keep a record of the name, dates of admission and discharge, age, address, names of parents orguardians, and degree and cause of the deafness. The pupils may continue in the school for five years, and as much longer as in the discretion of the state board of control and the principal their condition and progress would seem to justify. All such deaf persons are admitted without charge for board and tuition, and if the pupil is not provided with clothing while at the school the principal furnishes clothing of a value not to exceed $\$ 40$ and collects the same from the pupil's county of residence.

After all the applicants of the prescribed age have been admitted other deaf persons of suitable age to receive any advantage from the school, if there are accommodations, may be admitted to the school upon terms prescribed by the board; but such persons must withdraw from the school in the order of their admission to make room for new applicants between the ages prescribed. The board provides for accommodations for all other pupils upon such terms of payment as it may prescribe. (Code 1918, §§ 2314 ff.)

The assessors of the state must register the names of the deaf personsin their respective districts, the degree and cause of deafness, age, names of parents or guardians, address, and such other facts as may be useful in making the school efficient in ameliorating the condition of the deaf. The assessors' reports are sent to the auditor, who in turn sends them to the principal of the school, who must immediately correspond with the persons named in the report with a view to their admission into the school. (Code 1919, § 2319.)

## WISCONSIN.

## References:

Wisconsin Statutes, 1915.
Session Laws, 1917.
school for the deaf.
The general supervision and government of the Wisconsin School for the Education of the Deaf and Dumb is vested in the state board of control, whose duty it is to inspect the school at least once a month. The object of the school for the deaf is to afford the deaf and dumb enlightened and practical education, which may aid them to obtain the means of subsistence, discharge the duties of citizens, and secure all the happiness which they are capable of attaining. All deaf and dumb residents of the state between the ages of $10^{1}$ and 25 years, of suitable capacity to receive instruction, must be received and taught free of charge. Deaf persons who are placed in the institution by any municipality of the state, but who are not entitled to free tuition, enjoy all the benefits and privileges at a cost not exceeding $\$ 100$ per scholar for the academic year of 40 weeks, to be paid by such corporation. The school pays for necessary expenses of indigent scholars in going to and from the school When there is room pupils from other states may be admitted upon. payment of a sum prescribed by the board. (Stat. 1915, $88574.7 f$.)

## day schools for the deaf.

Upon application by the district board of any school district embracing within itslimits any village or city, or the board of education of any city the state superintendent may authorize the school district board or board of education to establish and maintain one or more day schools for the instruction of deaf persons or persons with defective speech. There must be paid out of the state treasury the sum of $\$ 150$ for each deaf or defective speech pupil residing within the state instructed in such school at least nine months during the school year. An additional sum of $\$ 125$ is appropriated for each of such pupils residing within the state but not residing in such school district, who findsit necessary to pay for board and transportation, if his parents or guardian do not pay for this expense. For each pupil residing within the state educated for a shorter period than nine months during the year a share of the $\$ 150$ or $\$ 275$, as the case may be, proportionate to the term of instruction of the pupil, is paid; no deduction is made for pupils absent on account of sickness not exceeding a month at a time, and in case of absence for any period of more than one month the amount deducted for the absence is for only the time in excess of one month. (Laws 1917, pp. $66 f f, 598$.)

## census of the deaf.

The assessors of the state, when making their annual assessment, must at every tenth year enter upon blanks furnished for this purpose the names of all deaf and dumb persons in their respective districts, their age, color, sex, occupation, and place of birth, whether such persons are educated or not, the names of their parents, the number of children of such parents, what blood relation, if any, existed between the parents, and the number of deaf and dumb children of such parents, and return the same to the county clerk. The county clerk transmits this report to the secretary of state, who compiles and tabulates such returns for his biennial report. (Stat. 1915, 81014.$)$

## COMPULSORY EDUCATION

Any parent or guardian having under his control a deaf child between the ages of 6 and 18 years who is incapacitated for attending a common school must send such child to some public, private, pa-

[^33]rochial, or state school for the instruction of the deaf, for at least eight months a year. This requirement does not apply to children who are shown by a reputable physician not to be in proper physical or mental condition to attend school, nor to children over 16 years of age who have completed the eighth grade or who are regularly employed in a gainful occupation. A penalty is provided for failure to comply with this requirement.

Whenever it appears by affidavit to any county or municipal judge that any deaf child of proper age is deprived of a suitable education through the neglect or refusal of its parents or guardian, the judge may in his discretion, if the facts are admitted or established to be true, order such child to be sent to the school for the deaf or to some private institution for the instruction and education of the deaf. Each superintendent of the city and county schools must send to the superintendent of the school for the deaf the names and addresses of the deaf persons known to be in his city or county and the persons having charge of them, the number of deaf persons being educated and not educated, and the number of personal visits made during the year to the custodians of the deaf children to induce them to give such children a proper education. (Stat. 1915, §8 576, 579m, 461g; Laws 1917, pp. 598 .f.)

THE DEAF IN POORHOUSES.
It is the duty of the state board of control to investigate as to the number and condition of deaf and dumb persons supported in the poorhouses of the state. (Stat. 1915, § 564.)

## WYOMING.

Reference:
Wyoming Compiled Statutes, 1910.
education of the deaf.
The state board of charities and reform, composed of the governor, the secretary of state, the state treasurer, the state auditor, and the state superintendent of public instruction, has general supervision of the Blind, Deaf, and Dumb Institute when it is open, and until the opening of the institute provides for the support and education of the blind, deaf, and dumb persons resident in the state in some asylum for the education of the blind, deaf, and dumb. In selecting the asylum the board must select the one that offers the best advantages for the education of such pupils, due regard being had to economy in the cost of supporting and maintaining pupils at the asylum. All necessary clothing, transportation, and other expenses that are incurred in placing pupils in such an asylum must be paid out of the funds appropriated for the deaf, dumb, and blind, but when the board is satisfied that the parents or guardians of such children are financially able to bear such expenses they must in all cases do so.
When there are 12 pupils ready that will enter the school the Blind, Deaf, and Dumb Institute opens, but when the number of pupils falls below 8 the institute must close. Every blind, deaf, or dumb person who is a resident of the state of suitable age and capacity is entitled to receive an education in the institute at the expense of the state, and persons not residents of the state of suitable age and capacity are entitled to an education in the institute upon payment of $\$ 300$ per year in advance to the state treasurer.
When the pupils of the institute are not otherwise supplied with clothing they must be furnished with it by the principal. The cost of clothing so supplied is a charge against the county from which the pupils came to the institute, but the county may collect the account from the parent or guardian or from the pupil himself unless it appears by the affidavit of three disinterested citizens of the county, not akin to the pupil, that the pupil or his parents would be unreasonably oppressed by a suit to recover the cost of the clothing. (C.S. 1910, $\$ 8486,564$ ff.)

## APPENDICES

> APPENDIX A.-INSTITUTIONS FOR THE DEAF IN THE UNITED STATES
> APPENDIX B.-SPECIAL SCHEDULES EMPLOYED AT CENSUSES OF THE DEAF AND THE DEAF AND DUMB IN THE UNITED STATES
> APPENDIX C.-SPECIAL SCHEDULES EMPLOYED IN ENUMERATING THE DEAF AND DUMB IN FOREIGN COUNTRIES

# Appendix A.-INSTITUTIONS FOR THE DEAF IN THE UNITED STATES. 

## I.-RESIDENTIAL SCHOOLS.



## PRIVATE. ${ }^{1}$

St. Joseph's Home for the Deaf. . .......... Oakland, Cal.
*American School for the Deaf................Hartford, Conn.
*Mystic Oral School for the Deaf. ........... Mystic, Conn.
Miss Arbaugh's School for Deaf Children. . .Macon, Ga.
Ephpheta School for the Deaf. . . . ...........Chicago, Ill.
McCowen Resident Home for Deaf Children.

Chicago, Ill.
Chinchuba Deaf-Mute Institute..............Chinchuba, La.
St. Francis Xavier's School for the Deaf. . .Irvington, Md.
Home School for Little Deaf Children. .....Kensington, Md.
*Maryland School for the Blind.............. Overlea, Md.
*New England Industrial School for DeafMutes.
.Beverly, Mass.
*Clarke School for the Deaf. . . . ..................Northampton, Mass.
*Boston School for the Deaf...................Randolph, Mass.
The Sarah Fuller Home for Little Deaf
Children................................... West Medford, Mass.
Evangelical Lutheran Deaf-Mute Institute.North Detroit, Mich.
Central Institute for the Deaf. ...............St. Louis, Mo.
Immaculate Conception Institute for the Deaf...........................................St. Louis, Mo.
The Davidson School of Individual In-
struction....................................Tamworth, N. H.
*Albany Home School for the Oral Instruction of the Deaf..............................Albany, N. Y.
*Le Couteulx St. Mary's Institution for the Improved Instruction of the Deaf.........Buffalo, N. Y.
*Northern New York Institution for DeafMutes.
*New York Institution for the Instruction of the Deaf and Dumb. ......................New York, N. Y.
*Institution for the Improved Instruction of Deaf-Mutes............................................ York, N. Y.
Reno Margulies School for the Deaf. . .......New York, N. Y.
The Wright Oral School. ......................New York, N. Y.
*Western New York Institution for DeafMutes....................................................
*Central New York Institution for DeafMutes.......................................Rome, N. Y.
*St. Joseph's Institute for the Improved Instruction of Deaf-Mutes ${ }^{2}$..................Westchester, N. Y.
St. Rita School for the Deaf. . ................Glendale, Ohio.
*Western Pennsylvania Institution for the Instruction of the Deaf and Dumb........Edgewood Park, Pa.
Miss Rudd's Sanatorium School.............. Lansdowne, Pa.
Archbishop Ryan Memorial Institute for Deaf-Mutes

Philadelphia, Pa .
Forrest Hall.................................... Philadelphia, Pa.
*Pennsylvania Institution for the Deaf and Dumb...................................... Philadelphia, Pa.
De Paul Institute for Deaf-Mutes........... Pittsburgh, Pa.
*Austine Institution for the Deaf and the Blind.......................................Brattleboro, Vt.
St. John's Institute for Deaf-Mutes........ . St. Francis, Wis.

[^34]
## II.-PUBLIC DAY SCHOOLS.

Eureka Day School for the Deaf.............Eureka, Cal.
Los Angeles Day School for the Deaf. ......Los Angeles, Cal.
Oakland Public School Oral Classes. ....... Oakland, Cal.
Sacramento Day School for the Deaf....... .Sacramento, Cal.
Day School for the Deaf. ................... San Diego, Cal.
San Francisco Day School for the Deaf.....San Francisco, Cal.
Atlanta Day School for the Deaf............Atlanta, Ga.
A. G. Bell School for the Deaf..............Chicago, Ill.

Delano School for the Deaf...................Chicago, Ill.
Kozminski Public Day School for the Deaf. .Chicago, Ill.
Parker Practice Public Day School for the Deaf.
.Chicago, Ill.
Dubuque Day School for the Deaf. .........Dubuque, Iowa.
Day School for the Deaf. ..................... Baltimore, Md.
Horace Mann School.......................... Boston, Mass.
Bay City Day School for the Deaf........... Bay City, Mich.
Calumet Day School for the Deaf............Calumet, Mich.
Detroit Day School for the Deaf............Detroit, Mich.
Grand Rapids Oral School for the Deaf. . . . Grand Rapids, Mich.
Houghton Day School for the Deaf......... Houghton, Mich.
Iron Mountain Day School for the Deaf....Iron Mountain, Mich.
Ironwood Day School for the Deaf..........Ironwood, Mich.
Jackson Day School for the Deaf........... Jackson, Mich.
Kalamazoo Day School for the Deaf.........Kalamazoo, Mich.
Day School for the Deaf. .................... Lansing, Mich.
Manistee Day School for the Deaf...........Manistee, Mich.
Marquette Day School for the Deaf..........Marquette, Mich.
Saginaw Oral Day School for the Deaf..... .Saginaw, Mich. Sault Ste. Marie Day School for the Deaf. .SaultSte. Marie, Mich.
Traverse City Day School for the Deaf......Traverse City, Mich.
School for Defective Speech.................Duluth, Minn.
Minneapolis Public School for Deaf and
Stammerers..................................Minneapolis, Minn.
St. Paul Oral School for the Deaf...........St. Paul, Minn.
Kansas City Day School for the Deaf.......Kansas City, Mo.
Gallaudet School..............................St. Louis, Mo.
Jersey City Public Day School for the Deaf. Jersey City, N. J. Newark School for the Deaf..................Newark, N. J.
Public School 162, Brooklyn, Classes for the Deaf.

Brooklyn, N. Y.

Public School 47, Manhattan, School for
the Deaf. .......................................New York, N. Y.
Ashtabula Day School for the Deaf..........Ashtabula, Ohio.
Canton School for the Deaf..................Canton, Ohio.
Cincinnati Oral School...........................Cincinnati, Ohio.
Cleveland Public Day School for the Deaf. .Cleveland, Ohio.
Dayton School for the Deaf. ................ Dayton, Ohio.
Toledo Day School for the Deaf.............Toledo, Ohio.
Portland Day School for the Deaf............Portland, Oreg.
Oral Day School............................... Lancaster, Pa.
Houston Day School for the Deaf........... Houston, Tex.
Everett School for the Deaf................. Everett, Wash.
Seattle Public Day School for the Deaf.... Seattle, Wash.
Day School for the Deaf. ................... Spokane, Wash
Tacoma Day School for the Deaf............Tacoma, Wash.
Antigo Day School for the Deaf..............Antigo, Wis.
Appleton Day School for the Deaf...........Appleton, Wis.
Ashland Day School for the Deaf...........Ashland, Wis.
Black River Falls School for the Deaf. . .... Black River Falls,Wis.
Bloomington Day School for the Deaf....... Bloomington, Wis.
Eau Claire Day School for the Deaf.........Eau Claire, Wis.
Fond du Lac Day School for the Deaf. .... Fond du Lac, Wis.
Green Bay Day School for the Deaf.........Green Bay, Wis.
Kenosha Day School for the Deaf...........Kenosha, Wis.
La Crosse Day School for the Deaf..........La Crosse, Wis.
Madison Day School for the Deaf............Madison, Wis.
Marinette Day School for the Deaf...........Marinette, Wis.
Marshfield School for the Deaf. .............. Marshfield, Wis.
Milwaukee School for the Deaf..............Milwaukee, Wis.
New London Day School for the Deaf.......New London, Wis.
Oshkosh School for the Deaf.................Oshkosh, Wis.
Platteville Day School for the Deaf..........Platteville, Wis.
Racine Day School for the Deaf. ............Racine, Wis.
Rice Lake Day School for the Deaf..........Rice Lake, Wis.
Richland Center School for the Deaf.........Richland Center, Wis.
Ripon School for the Deaf. . ...................Ripon, Wis.
Sheboygan Day School for the Deaf. .......Sheboygan, Wis.
Stevens Point Day School for the Deaf..... Stevens Point, Wis.
Wausau Day School for the Deaf............Wausau, Wis.
Superior Day School for the Deaf............West Superior, Wis.

## III.-HOMES.

New England Home for Deaf-Mutes........ Everett, Mass.
Gallaudet Home for Aged and Infirm
Deaf-Mutes.
Wappingers Falls, N.Y.

Ohio Home for Aged and Infirm Deaf.......Central College, Ohio Home for Aged and Infirm Deaf............ Doylestown, Pa.

# APPENDIX B.-SPECIAL SCHEDULES EMPLOYED AT CENSUSES OF THE DEAF AND THE DEAF AND DUMB IN THE UNITED STATES. 

THIRTEENTH CENSUS: 1910.<br>SUPPLEMENTAL SCHEDULE FOR THE DEAF.<br><br>bureau of The census<br>E. DANA DURAND. DIRECTOR<br>

## [TT 1-429]

State
S. D.
......... E. D

In compliance with the requirements of an Act of Congress, the Bureau of the Census is at present compiling statistics of the deaf. In the census of the United States taken in April, 1910, you were reported as deaf, and it was stated that you are of the male sex, and.
born in................................... and that you were race; that you were
..................... years of age,
.................gainfully occupied.
If the enumerator has made any mistake in these entries, I should be pleased to have you, or some one acting for you, make all the corrections necessary, so that our record of you may be absolutely accurate.

I also have to request that you, or some one acting for you, answer the questions printed on the other side of this sheet. The answers to these questions will be used mainly in a statistical report on the deaf, which it is hoped will be of immeasurable value in the work which is being done to aid the deaf. The work of getting the deaf of school age into schools, and the work of teaching deaf children to speak will be furthered by thisstatistical report, which the Bureau is publishing for the use of those engaged in aiding the deaf.

You are, therefore, requested to supply, or to have some friend supply, answers to the questions on the opposite side of this sheet, and to return it to the Bureau of the Census in the inclosed official envelope, which requires no postage, but can be sent absolutely free of charge.

The answers to these questions will be the property of the United States Government and will be kept in confidence and used only for the statistical report mentioned above or for other purposes in the interests of the deaf. The name of the deaf person will not be published in the report. Very respectfully,

JOSEPH A. HILL,<br>Chief Statistician.

Approved:
E. Dana Durand,

Director of the Census.
See questions on the other side of this sheet.

| [Second page.] |  |
| :---: | :---: |
| 1. Is the person named deaf?. | 21. Has he ever had any children?. |
| 2. Is the deafness tot | 22. If so, how many? |
| 3. Can he hear with the aid of a tube, trumpet, or other mechanical appliance? | 23. Were any of these children deal? |
|  | 24. If so, how many? |
| 4. Can he hear without the aid of a tube, trumpet, or other mechanical appliance? |  |
|  | 25. Has this person attended, or does he now attend, a school for the deaf?. |
| 5. Does he understand what is said to him in a loud voice with the mouth of the | 26. If he attends, or has attended, a school for the deat, give its name. |
| speaker near the ear?. |  |
| 6. Can he hear ordinary conversation at a distance of 5 feet? | 27. Has this person attended, or does he now attend, a school for hearing persons? |
| 7. Can he speak well? | 28. Draw a line under the word describing such school or schools: |
| 8. Can he speak imperfectly? | Common School; High School; Academy; College; Instructed at home. |
| 9. Can he speak at all? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  |
| 10. If he can speak, did he learn to speak before he became deat? | 29. Can he understand what people say by watching the motion of their lips? <br> 30. In communicating with others, does he employ any or all of the following mothods (write "yes" or "no" after each)? |
| 11. Was he born dear?............................................................... |  |
| 12. If not born deaf, at what age did he become deaf? | Speech............... Writing................ Finger spelling................. |
| (State age exactiy if kown; if not, state it as neariy as you can.) | The "sign" language $\qquad$ <br> (Full information is desired as to the ordinary and usual means of communication employed). $\qquad$ |
| 13. What was the supposed cause of deafnoss? |  |
|  |  |
| 14. Was his father deaff ......................................................... |  |
| 15. Was his mother deaf?. | 31. Is he now engaged in any occupa |
| 16. Were his father and mother first cousins? | 32. If so, give the occupation |
|  | 33. Does this occupation support him? |
| 17. Has he ever had any brothers or sisters? | 34. Is he dependent on this for a living? |
| 18. If so, how many? | 35. About how much does he earn in a year? |
| 19. Were any of these brothers or sisters deaf? | 36. If he became deaf atter he grew up, what was his occupation before he became |
| 20. If so, how many? . . . . . | de |

## TWELFTH CENSUS: 1900.

## SPECIAL SCHEDULE FOR PERSONS DEFECTIVE IN SIGHT, HEARING, OR SPEECH.

(Furnished to enumerators.)<br>7-442.<br>\section*{Twelfth Census of the United States.<br><br>speclal schedule.<br><br>Persons Defective in Sight, Hearing, or Speech.}

State.
Supervisor's District No.
County
Enumeration District No
Township or other division of county
Name of incorporated city, town, or village within the above-named division

## INSTRUCTIONS.

The object of this special schedule is to obtain the name, sex, age, and post-office address of all persons who are either blind or deaf (including those who are deaf and dumb).

After completing the enumeration of all the members of a family on Schedule No. 1 (Form 7-224), you will ask whether all the persons just enumerated have good sight and good hearing-that is, can see well and hear well. For all such persons no further inquiry need be made; but if you find that some member of the family can not see well, you will then ask whether he or she can see well enough to read a book; and should it appear that the sight is so seriously impaired that it is impossible for the person to read a book, even with the aid of glasses, then you will note such person as "Blind," even though, as a matter of fact, he or she may have some slight power of sight.

In the same way, if you find that some member of the family can not hear well, you will then ask whether he or she can hear well enough to understand loud conversation; and should it appear that the hearing is so seriously impaired that the person can not be made to understand what people say, even when they shout, you will note such person as "Deaf," even though, as a matter of fact, he or she may have some slight power of hearing. You will then ask further whether this deaf person can speak; and should it appear that the person can not speak so as to be understood, you will note such person as "Deaf" and "Dumb," even though, as a matter of fact, he or she may have some slight power of speech.

Only those dumb persons who are deaf as well as dumb are to be noted; so that if you should come across dumb persons who are not deaf they should not be included, nor should the "semi-blind" and those blind only in one eye be reported on this schedule.

For each person reported on this special schedule as blind or deaf you will write on the population schedule (Form 7-224), on the right-hand margin opposite the name of any person defective as above, the letter "B" if the person is blind; the letter " $D$ " if the
person is deaf; and the letters "DD" if the person is deaf and dumb. If a person is blind and also deaf, use the letters "BD"; if blind and also deaf and dumb, use the letters "BDD." You will then make the entries called for on this special schedule, in columns 1 to 9 , according to the following instructions:
In columns 1 and 2 enter the number of the sheet and of the line of the population schedule (Form 7-224) on which the defective person is enumerated, and then copy in columns 3,4 , and 5 the name, sex, and age of the person as originally entered on that schedule.

In column 6 enter the post-office address of the person reported as defective; or, if the person is a minor, or unable, through disability, to respond to communications by mail, obtain and enter in this column the name and post-office address of his or her parent, guardian, or nearest friend, using the two spaces as subdivided by the dotted line. The intent of this inquiry is to secure the name and address of the proper person from whom further information can be obtained by correspondence concerning the blind and deaf persons enumerated.

In columns 7, 8 , and 9 note the nature of the disability as follows:
If the person is defective in sight but can hear and speak, write "Blind" in column 7 and "No" in columns 8 and 9.

If the person is defective in sight and hearing, but can speak, write "Blind" in column 7, "Deaf" in column 8, and "No" in column 9.
If the person is defective in sight, hearing, and speech, write "Blind" in column 7, "Deaf" in column 8, and "Dumb" in column 9.

If the person is defective in hearing, but can see and speak, write "No" in column 7, "Deaf" in column 8, and "No" in column 9.

If the person is defective in both hearing and speech, but can see, write "No" in column 7, "Deaf" in column 8, and "Dumb" in column 9.


# SUPPLEMENTAL SCHEDULE FOR THE DEAF. 

Twelfth Census of the United States.

## Frederice H. Wines,

 Assistant Director.State...............................................
S. D............... E.D.

## THE DEAF AND THE BLIND.

Dr. Alexander Gbaham Bell, of Washington, D. C., has been appointed Expert Special Agent of the Census Office, for the preparation of the Report on the Deaf and Blind authorized and required by an "Act Relating to the Twelfth and Subsequent Censuses," approved February 1, 1900, and he is empowered to conduct in his own name the correspondence relating to this branch of the census inquiry.

All communications and replies to questions asked by him will be held and regarded as strictly confidential, and no use will be made of them which can directly or indirectly injure the persons to whom they relate.

WILLIAM R. MERRIAM, Director of the Census.

## (CIRCULAR.)

In the return made by a United States census enumerator for the State named above occurs the following entry:
Name of person reported.
Post-office address.
This person is said by the enumerator to be.
Sex. Age.
In order to verify the truth of this return, and also to obtain certain additional information regarding the case reported, the person to whom this circular is addressed (or some other person acting for him or her) is respectfully requested to write in the blank spaces below answers to the following printed questions.

The circular, when so filled, should be forwarded to the Census Office, at Washington, in the inclosed envelope addressed to Dr: Bell, which requires no postage stamp, but will be transmitted through the mails free of charge. An immediate reply is earnestly desired.
(1) Is the person named above deaf? (Write "Yes" or "No," as the case may be.).
(2) Is the deafness total or partial?....................... If partial, does he use a tube, trumpet, or other mechanical appliance as an aid to hearing?................... Does he understand what is said to him in a loud voice with the mouth of the speaker near the ear?
(3) Was he (or she) born deaf?........... If not, at what age did deafness occur? (State the age exactly, if known; if not, state it as nearly as you can.*).
(4) What is the supposed cause of deafness?
(5) Has he attended, or does he now attend, school?............ If yes, where? (If in a special school for the deaf, name it; if not, write "common school," "private school," "high school," "academy," "college," or "privately instructed at home.").

[^35][Second page.]
(6) Were his parents first cousins?............ If not first cousins, were they otherwise related by blood to each other, before their marriage?
(7) Were any of his relatives deaf? (Write "yes" or "no.").............. If yes, what relatives? (Father, mother, grandparents, brothers, sisters, uncles, aunts, and how many of each, so far as known.)
(8) Can he speak? (Answer by writing "well," "imperfectly," or "not at all.")........................... Was the power to speak gained before the loss of hearing?............. or was it acquired by means of instruction in a school where speech is taught to deaf pupils?..................... Can he "read the lipa?" (By reading the lips is meant the ability to understand what is said, without hearing, by watching the motions of the lips and tongue of a person who can speak.)
(9) In communicating with others, does he employ either or all of the following methods: Speech?.............. Writing?. Finger-spelling? The "sign language?"
(Full information is desired as to the ordinary and usual means of communication employed.)
(10) What occupation does he follow for a livelihood, if any?

# ALEXANDER GRAHAM BELL, Expert Special Agent. 

## CERTIFICATE.

I hereby certify that the answers given to the foregoing questions are true, to the best of my knowledge and belief.

Sisn here.
Name of informant.
Post-office address
Street and number

## ELEVENTH CENSUS: 1890.

# Eleventh Census of the United States. 

Supervisor's District No.
Supplemental Schedule No. 3.
Enumeration District No.
$\qquad$
statistics of the deaf.
DEAF PERSONS in
County of $\qquad$
enumerated in June, 1890.

## Speclal Instructions for Filinga Schedule.

The object of this supplemental schedule is to furnish material for a complete enumeration of the deaf and an account of their condition Enumerators will, after making the proper entries on population schedule No. 1, transfer to this schedule the information called for by columne 1 to 27 , inclusive, for every deaf person found, and proceed to ask the additional questions indicated by the headings of the columns numbered 28 to 63 , inclusive.

The questions on this schedule are to be asked with regard to every person who is too deaf to be taught in ordinary schools for hearing persons, or who cannot hear conversation carried on in a loud tone of voice. If the person is merely "hard of hearing," or if there is doubt whether the deafness is sufficient to cause the disability above named, the person should not be entered on this schedule.

Valuable hints as to the existence of deaf persons in the neighborhocd and their residence may be obtained from physicians, from school teachers, and from deaf persons themselves in the respective districts.

The instructions necessary to the proper filling out of the columns numbered 1 to 27 , inclusive, are contained in the book of instructions to enumerators, a copy of which has been supplied. The following special instructions will serve as a guide in completing the information concerning deaf persons only, called for by the columns numbered 28 to 63 , inclusive, in all cases where the inquiries are not selfexplanatory.

Column 28. This question is very important. If deaf from birth, write " $B$ "; if not, state the age at which deafness occurred. If the exact age can not be ascertained, state the period of life at which deafness occurred, viz: infancy (inf.), under 4 years of age; childhood (ch.), under 10 years; youth (yo.), under 20 years; adult life (ad.), from 20 to 50 ; old age (old), over 50 . If the age or period of life can not be ascertained, state the reason why it can not.

Column 29. Give the name of disease or injury, if known.
Columns 30, 31, and 32. Write "yes" or "no."
Column 33. Give the time in years and twelfths of years.
Column 34. The answer may be that the person communicates by one, by two, or by all the methods named. Record all the methods given in response to this inquiry.

Column 35. Write "yes" or "no."
Columns 36 to 46. Give the number in figures under each heading, if known. Write "no ", if it is known there are no such relatives. Write "unk." when it is unknown. With regard to grandfathers, grandmothers, uncles, aunts, and first cousins, indicate wherever possible whether the deaf relatives are on the father"s side by the use of the letter " $F$," or mother's side by the use of the letter " $M$," or on both by the use of the letters "FM."

Column 47. Write "yes" or "no." This question should be asked of hearing husbands and wives as well as of those who are deaf.
Column 52. Give the number, and indicate as follows: blind (b), feeble-minded (f), or insane (i), as the case may be. If none, write "no."

Columns 53 to 61 . Same instructions as under 36 to 46 , but as regards blind, feeble-minded, or insane relatives specify blind by "b," insane by " $i$," and feeble-minded by " $f$."

Column 62. Write "wholly pub.," "wholly priv.," "family," "partially self," etc., as the case may be.
Column 63. A deaf mute may be found either at his home or away from it in some educational institution, asylum, or poorhouse. Special care should be taken to give the state, county, and post-office, so that the person may be credited to the proper state or county.

[^36][Second page.]

[ Third page.]


## TENTH CENSUS: 1880.

## SUPPLEMENTAL SCHEDULE FOR DEAF-MUTES.

Page No.
Supervisor's Dist. No.
Enumeration Dist. No
The object of this Supplemental Schecule is to furnich material no of their condition. It is important that every inquiry respecting each case be answered as fully as possible. Enumerators will, therefore, after making the proper entries upon the Population Schedule (No. 1), transfer the name (with Schedule page and number) of every deaf-mute found, from Schedule No. 1 to this Special Schedule, and proceed to ask the additional questions indicated in the headings of the several columns. Care must be taken not to enumerate persons who are deaf only (hard of hearing) or dumb only (tongue-tied) as deaf-mutes. A deaf-mute is one who cannot speak because he cannot hear sufficiently well to learn to speak.

Enumerators may ohtain valuable hints as to the number of deaf-mutes, and their residence, from physicians who practice medicine in their respective districts, also from school-teachers.

Great assistance may be derived from questions addressed to deaf-mutes themselves: Do you know any deaf-mutes in this neighborhood? The class feeling of the deaf and dumb, arising from their isolated state, is so great that they seek each other out for the sake of companionship, and ordinarily know every deaf-mute for miles around.

Supplemental Schedule No. 3-DEAF-MUTES in $\qquad$ in the County of.
State of ...................................... enumerated by me June, 1880.

| Number taken from Schedule No. 1. |  |  | Name. | Residence when at home. (See Note A.) |  | Is he (or she) self-supporting, or partly so. (See Note B.) | 总 <br>  <br> 불 <br> a <br> $\stackrel{8}{8}$ | Supposed cause of deafness, if known. | $\left\lvert\, \begin{gathered} \text { See } \\ \text { Note D. } \end{gathered}\right.$ |  | Institution life. |  |  | See Note E. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | City or Town. | County (if in same State), or State (if in some other State). |  |  |  | Is this person semi-mute? | Is he (or she) semi-deaf? | Has this person ever been an inmate of an institution for deaf-mutes? If yes, give the name of sach institution. |  |  |  | Is he (or she) also idiotic? |  |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 • | 14 | 15 | 16 |
| 1 |  |  |  |  |  | -..-..... |  |  |  |  |  |  |  |  |  | ... |
| 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Note A.-A deaf-mute may be found either at his own home, or away from it, in some educational institution, asylum, or poor-house. In the latter case, his residence when at home must be stated, in orcer that he may be accredited to the state or county to which he properly belongs, and that the county in which the institution is situated may not be charged with more than its due proportion of deaf-mutes.

Note B.-If self-supporting, say "yes;" if partly seli-supporting, say "partly;" if not, say "no." Indicate all inmates of institutions who are maintained or treated at their personal expense (not at the expense of any town, county, or State, nor of the institution) by the word "Pay."

NOTE C.-If a deaf-mute from birth, say "B;"if not, state the age at which deafness occurred. Special pains should be taken to indicate all deaf-mutes from birth.
NOTE D.-The word "semi-mute" has a technical meaning, and denotes a deaf-mute who lost his or her hearing after having acquired at least a partial knowiedge of spoken language. Some semi-mutes retain the ability to speak imperfectly, others lose it entirely. If a deaf-mute has ever learned to speak, he is a semi-mute; (unless he was artificially taught to speak in an institution for deaf-mutes.)

By a semi-deaf person is meant one who cannot hear sufficiently well to comprehend what is said to him, but who hears very loud sounds, such as thunder, ete.
NOTE E.-In making entries in columns 14,15 , and 16 , an affirmative mark only will be used, thus: $/$.
$50171^{\circ}-18-14$

# Appendix C.-SPECIAL SCHEDULES EMPLOYED IN ENUMERATING THE DEAF AND DUMB IN FOREIGN COUNTRIES. 

## GERMAN EMPIRE.

## SCHEDULE USED BY THE STATE GOVERNMENTS FOR TRANSMITTING TO THE IMPERIAL HEALTH OFFICE THE RETURNS OF THE POPULATION CENSUS OF 1900.

Census 1900-Statistics of the Blind and Deaf-Mutes.
State:
Administrative district (Prussia: Circle, Bavaria: Government, etc.):
Serial number of the schedule for the administrative district: Commune:

Enumeration district:

## Number of the list or census schedule:

## Given name and surname:

Blind in both ejes: since earliest youth?.......................................... or occurred later?
Deaf and dumb: since earliest youth?......................................... or occurred later?
Family relationship or other relation to the head of the household:
If an inmate of an institution: Address of the institution:
If one or more other defectives belong regularly to the same household (not an institution): Statement of the corresponding serial number(s) of the schedule(s) for the administrative district:
Marital condition:
Sex: male...................female.
Day and year of birth:
 country of birth): $\qquad$
For defectives born in 1884 or earlier: Occupation and position in occupation
Religious confession:
Mother tongue:
Nationelity (citizenship):

## SCHEDULE AND INSTRUCTIONS FOR THE CONTINUOUS CENSUS OF DEAF-MUTES.

[On December 12, 1901, the Federal Council (Bundesrat) passed a resolution instituting a continuous statistical enumeration of deaf-mutes, beginning with January 1, 1902, to be taken in accordance with the regulations given below.]
regulations concerning a continuous census of deaf-mutes. ${ }^{1}$

1. Beginning with Jan. 1, 1902, there shall be a continuous statistical enumeration of deaf-mutes, in which every child who is a deaf-mute or is suspected of being such will be enumerated
(a) upon reaching the school age of normal children and
(b) upon its admission thereafter into an institution for deafmutes.
The enumeration shall, in addition, comprise those deaf-mutes who have already, before Jan. 1, 1902, reached school age and are on this date in an institution for deaf-mutes.
2. The enumeration shall be made by means of schedules following the form given below.
3. The upper portion of the schedule is to be filled out by the local (local police) authorities. The answers to inquiries 1-12, inclusive, are to be made out by the examining physician to whom the schedule is to be delivered by the aforementioned local (local police) authorities for this purpose. The answers to inquiries 13-20 are to be made out in the institution for deaf-mutes; in the case of children who are not placed in an institution for deaf-mutes, these inquiries will remain unanswered.

In the case of those deaf-mutes who are already in an institution for deaf-mutes on Jan. 1, 1902, the entire schedule will be filled out in the institution by the institutional authorities and the institutional physician.

[^37]4. In the case of each deaf-mute child who is not in an institution for deaf-mutes, the schedule, in accordance with Section 3, Paragraph 1, is to be prepared by the local (local police) authorities upon the arrival of the child at the school age of normal children, and, as regards inquiries 1-12, inclusive, is to be filled out by the physician.
5. Whenever a deaf-mute child is admitted into an institution for deaf-mutes, he is to present a schedule filled out, in accordance with Section 3, Paragraph 1, by the local (local police) authorities and the examining physician. Inquiries 13-20 are to be answered in the institution in the case of deaf-mutes who have reached school age, but not, as a rule, before the end of the first school year.
6. The schedules indicated in 4 and 5 , as soon as completely filled out, are to be sent in duplicate to the office intrusted by decision of the state government with the review. They are to be here assembled and, upon the completion of the review, one copy is to be dispatched to the Imperial Health Office by Jan. 15 and July 15 of each year.
7. Any inquiries for further particulars which may be necessary may be settled by direct communication between the Imperial Health Office and the offices charged with the filling out of the schedules and their review. In case theinquiry does not originate at the office charged with the review, the latter is to be informed of its result.
8. The Imperial Health Office is to tabulate the results of the statistics; it is empowered to allow recognized specialists to examine the enumeration material.

The Deputy Imperlal Chancellor.
Count v. Posadowsigy.
Schedule
Concerning the deaf-mute
(Given name and surname.)
in......., resident in
(Locality [town, etc.], circle, administrative district or government [Oberamt], otc.) (Locality, circle, district, etc.)
sexreligionposition or occupation of the parents (of the fatherof the mother)Nors.-The heading of this schedule is to be filled out by the local (local police) authorities, inquiries 1-12, inclusive, are to beanswered by the examining physician; the latter is advised to place himself in communication herewith not only with the relatives of thechild under examination but also with the school teacher clayman and attending phyiciana teacher of deaf-mutes, and inquiry 20 by a specially trained a specially trained physician (institutional physician), inquiries 17-19 bya teacher of deaf-mutes, and inquiry 20 by a specially trained physician (institutional physician), with the assistance of a teacher of deaf-mutes. In the case of children who have not been admitted into an institution for deai-mutes, inquiries $13-20$ are to remain unanswered.

1. Is the deafness which underlies the deaf-mutism, according to the report of the relatives,
congenital?
acquired?
or can the relatives make no definite statement on this point?
At what age was the deafness first noticed by those around?
2. Is the child of legitimate or illegitimate birth?
3. To how many children has the mother given birth?
4. To how many children did the mother give birth before the birth of the child under examination?
Had stillbirths or miscarriages preceded this?
How many?
5. How old was the mother at the birth of the child?
6. How old were the parents (the father, the mother) at their marriage?
7. Are the parents related by blood?

## (Exact statement of the relationship.)

8. Are the grandparents (on the father's side, on the mother's side) related by blood?
(Exact statement of the relationship.)
9. Do the parents (the father, the mother) suffer or have they suffered from deaf-mutism?
congenital?
acquired?
from deafness?
in both ears?
in one ear only?
from hardness of hearing of a high degree?
from tuberculosis?
from mental disease?
from cretinism?
from syphilis?
(any objective signs? ................................................. what? ........................................................)
from retinitis pigmentosa? ${ }^{1}$
Are the parents (the father, the mother) dead?
From what disease?
10. How many brothers or sisters were born deaf?
How many brothers or sisters have become deaf-mutes?
How many brothers or sisters suffer or have suffered from deafness of both ears?
from deafness of one ear?
from hardness of hearing of a high degree?
from tuberculosis?
from mental disease?
from cretinism?
from congenital syphilis?
from keratitis diffusa?
from retinitis pigmentosa? ${ }^{1}$
How many brothers or sisters are dead?
From what disease?
${ }^{1}$ As indications of retinitis pigmentosa, which not infrequently occurs in connection with deaf-mutism, are to be noted hemeralopia and limitation of the field of vision, in addition to ophthalmoscopic conditions.
11. Are there or have there been among the grandparents or among the other relatives (exact statement of the relationship) cases-
of congenital deaf-mutism?
of acquired deaf-mutism?
of deafness?
of hardness of hearing of a high degree?
of mental diseases?
of cretinism?
12. Has the child the physical and mental development normal for its age? At what age did it learn to walk?
13. Is or was the child afflicted with a physical or mental disease or defect? With what?
In particular, are there any symptoms: of imbecility, feeble-mindedness, or cretinism? of epilepsy?.
of paralysis (Lähmungen) of the extremities?
or of the facial nerve?
of goiter?
of tuberculosis?
of scrofula?
of rickets?
of syphilis?
of disturbances of vision?
retinitis pigmentosa?
keratitis diffusa?
of malformations (of head and skull)?
14. Upon examination, do the nasopharynx, the external ear, the external auditory canal, and the ear drum show normal conditions?.
or alterations?
What?

Is the breathing through the nose free?
15. Have any attempts been made to cure the deafness? (Haben aus Anlass der Taubheit Heilversuche stattgefunden?)

Of what nature?
How long after the deafness was first noticed?
(To be answered only in the case of acquired deaf-mutism.)
16. During, or in direct connection with, what disease did the deafness become noticeable?

After cerebrospinal fever?
After other diseases of the brain?
After what disease?
After scarlet fever?
After measles?
After diphtheria?
After smallpox?
After typhoid fever?
After whooping cough?
After mumps?
After influenza?
After disease of the ear?
After injury to the head (fall or blow upon the head, delivery at birth by the use of instruments)?
After what other disorder?
17. Before the time at which the defect in hearing became noticeable, had the child
already been able to speak?
already learned to read?
18. Has the child yet had the benefit of deaf-mute instruction?
19. In communicating with others does the child use the sign language exclusively? or do remnants of speech etill exist?
To what extent?
20. Does the child still hear sounds? (Qualitative and quantitative tests with the continuous series of sounds [kontinuierliche Tonreihe].)

| hild still |  |  |
| :---: | :---: | :---: |
| Which and at what distance? |  |  |
| Does the child still hear consonants? |  |  |
| Which and at what distance? |  |  |
| Does the child still hear words?. |  |  |
| Which and at what distance? |  |  |
| Does the child still hear sentences? $\qquad$ |  |  |
|  |  |  |

## At what distance?

## IRELAND.

## SCHEDULE USED AT THE POPULATION CENSUS: $1911 .{ }^{1}$

Census of Ireland, 1911.

## County

## District Electoral Division

Poor Law Union

## Townland or Town

## Institution

$\qquad$FormNo

## Questions with Reference to the Deaf and Dumb.

.................. aged......... having been returned on Form......... for the Institution specified above, as "Deaf and Dumb," the Chief Resident Officer will please have Inquiry made and Answers returned to the following Questions with respect to such person.

These inquiries are instituted in the hope of directing public attention to the subject, and the Census Commissioners, therefore, trust that the fullest information will be afforded.

By order of the Commissioners,
Daniel S. Doyle, Secretary.
R. I. C.

Census Enumerator for the locality in which the above-named Institution is situated.

Date. 1911.

| Questions. | Answers. |
| :---: | :---: |
| 1. Whether the person was born deal and dumb, or became so afterwards?. |  |
| 2. If (he or she) was born deaf and dumb; to what cause is such defect attributed by the friands or relatives-whether to fright, hereditary pre-disposition, or the near relationship of parents, such as the intermarriage of cousins, \&c. |  |
| 3. If (he or she) became deaf and dumb since birth, state at what age; and to what cause or disease has such been attributed? |  |
| 4. State acquired trade and present occupation of sald person........... |  |
| 5. Whether any other members of the family, parent or parents, or grand parents, brothers or sisters, uncles, aunts, or cousins, either dead or absent, were deaf and dumb, and if so, state the number and particulars. |  |
| 6. If the person is educated, state where and by what means (his or her) education has been acquired; and what length of time under tuition in such school or institution, also the nature and extent of the spectal education received. |  |
|  |  |

Signature,
Rank in Institution
${ }^{1}$ At the time of the census all institutions having deaf and dumb inmates were supplied with these circulars. As regards the deaf and dumb who were not in public institutions, the fact of deaf-mutism having been ascertained on the general population schedule, similar epecial schedules were later issued, and the enumerators directed to ascertain the particulars required.

## PRUSSIA.

## SCHEDULE FOR USE IN THE PHYSICIAN'S EXAMINATION REQUIRED BY THE PRUSSIAN LAW PROVIDING FOR THE COMPULSORY EDUCATION OF DEAF AND DUMB CHILDREN.

 the show joy at the sight of acquaintances, pictures, and objects? and does it occupy itself playing alone?
14. Does it try by means of gestures to make itself understood by those around?
15. Does it give correctly on the fingers the number of persons, things, etc.?
16. Has it attended the local school or the kindergarten and with what result? ......................... Does it receive private instruction? ........................... Has it learned to write and read?
17. Has the child the physical and mental development normal for its age? ........................... At what age did it learn to walk?
18. Is the child of legitimate or illegitimate birth?
19. To how many children has the mother given birth?
20. To how many children did the mother give birth before the birth of the child under examination? ............. Had stillbirths or miscarriages preceded this? ............. How many?

Does it take part in the games of
21. How old was the mother at the birth of the child?
 natural or artificial? ......................... Was the feeding of the child natural or artificial? How did the years of childhood pass? (Wie verliefen die Kinderjahre?)
22. How old was the father at the marriage?
23. Are (were) the parente related by blood?

24. Are (were) the grandparents (on the father's side, on the mother's side) related by blood?
(In reply to 23 and 24 exact statement of the relationship.)


[^38]Fowny brothers or sisters were born deal?. . suffered from deafness in both ears? from hardness of hearing of a high degree?............. . from tuberculosis? ........ from mental disease?  How many brothers or sisters are dead?.............. From what disease? from retinitis pigmentosa? ${ }^{1}$
Exact statement of the relationship.)
of congenital deaf-mutism? $\qquad$ of acquired deaf-mutism? of cretinism?
28. In what condition is the parents' dwelling?.................................... Is it dry?
.
$\qquad$ sunlight?
or is it fission of the child into an institution for deaf-mutes appear advisable?
or is it incapable of education?
or is it for some other reason unfitted for admission into an institution for deaf-mutes?
(Signature of the examining physician.)
${ }^{1}$ As indications of retinitis pigmentosa, which not infrequently occurs in connection with deaf-mutism, are to be noted hemeralopia and limitation of the field of vision, in addition to ophthalmoscopic conditions.

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Water transportation, persons engaged in, ability for self-support, dependence on occupation, and annual earnings, 168; race and nativity, 165.
Western Australia, deaf-mute population of, $17,20,27,28$.
White deaf-mutes, ability to read lips, 91 , 162; age, 116, 118, 122; age when hearing was lost, 45,122 ; cause of deafness, 61 , 132; divisions and states, 111 ; education, 154, 170; gainfully employed, $92,93,164$, 170; hearing of parents, 67, 143; hearing of children, 73; marital condition, 120 ; means of communication, 87, 162; median age, 31; nativity, 21, 111; occupations,

164; self-support, dependence on occupation, and annual earnings, 99,170 ; sex, 111, 118; per cent distribution, 21. See also Foreign-born white deaf-mutes and Native white deai-mutes.
Whooping cough, deafness caused by, by age when hearing was lost, 64, 134; divisions and states, 59, 128; hearing of relatives, $70,146,150,151$; race and nativity, 132; sex, 54, 132.
Willow workers. See Basket makers, etc.
Wire-mill workers, ability for self-support, dependence on occupation, and annual earnings, 167; race and nativity, 164.
Wood carvers, ability for self-support, dependence on occupation, and annual earnings, 167; race and nativity, 164.

Wood polishers and gilders, ability for selfsupport, dependence on occupation, and annual earnings, 167; race and nativity, 164.

Woodchoppers. See Foresters, etc.
Wooden-box makers, ability for self-support, dependence on occupation, and annual earnings, 167; race and nativity, 164.
Woolen and worsted mill operatives, ability for self-support, dependence on occupation, and annual earnings, 168; race and nativity, 165.
Worsted-mill operatives. See Woolen, etc.; operatives.
Writing, use of, by deaf-mutes, as means of communication, $160,162,163$.


[^0]:    ${ }^{1}$ An enumeration of the deaf and dumb was also made in Baden in 1824, but it is impossible to determine definitely from the information at hand whether this was made under official auspices. Special enumerations of the deaf and dumb were made in individual districts of Prussia as early as 1819.

[^1]:    ${ }^{2}$ In addition to the enumerators' canvass a certain amount of correspondence was carried on with the authurities in charge of institutions for the deaf and dumb and with local physicians.

[^2]:    ${ }^{1}$ The Blind and the Deaf: 1900, p. 68.

[^3]:    ${ }^{1}$ Cf. the following:
    "Children who lose their hearing after 7 years of age are scarcely ever dumb." (Bacon: A Manual of Otology, ed. 1913, p. 509.)
    "The diagnosis [of deaf-mutism] * * $*$ is based on the following facts: * * *
    b. Deafneas dates from birth or before the seventh year." (Ballenger: Diseases of the Nose, Throat, and Ear, ed. 1909, p. 900.)
    "According to expert opinion, deafness occasioned by sickness or injury after the completion of the seventh year does not ordinarily involve deaf-mutism as a consequence, the person in question retaining, on the contrary, the power of speech existing at the time when complete loss of hearing occurred." (Translated from "Die Taubstummen im Deutschen Reiche nach den Ergebnissen der Volkszählung von 1900,' in Medizinal-statistische Mitteilungen aus dem Kaiserlichen Gesundheitsamte, Band IX, p. 19.)

[^4]:    1 "The figures for the United States censuses previous to 1880 are worthless so far as the calculation of rates of the number of deaf-mutes to population is concerned, since the number of deafmutes returned in these censuses was certainly far below the number actually present." (Report on the Insane, Feeble-minded, Deaf and Dumb, and Blind in the United States at the Eleventh Census: 1890, p. 92.)
    ${ }_{2}$ The Seventh Census of the United States, 1850, pp. xlviii, xlix; Ninth Census, Vol. II, p. 425.
    ${ }^{3}$ That of 1860 (see Eighth Censue, Population, pp. lvi ff).

[^5]:    ${ }^{4}$ For copies of the schedules for this and subsequent censuses, see Appendix B (p. 203).
    "One of the questions on the schedule was "Is this person semimute?", the following explanatory note being attached:
    "The word 'semi-mute' has a technical meaning, and denotes a deaf-mute who lost his or her hearing after having acquired at least a partial knowledge of spoken language. Some semi-mutes retain the ability to speak imperfectly, others lose it entirely. If a deaf-mute has ever learned to speak, he is a semi-mute; (unless he was artificially taught to speak in an institution for deaf-mutes)."

[^6]:    ${ }^{1}$ "Deafness merely, without the loss of speech, is not to be

[^7]:    ${ }^{1}$ The results of the enumeration of 1910 in Delaware afford an illustration of the unsatisfactory character of an enumeration of the deaf and dumb in connection with the population census as regards the number of children reported. According to this enumeration, there were only 3 deaf and dumb children under 6 years of age in the atate in 1910; two years later, however, the Delaware Commission for the Blind, which had been required by law to make an enumeration of the deaf-mutes in the state, found 16 such children.

    Compare also the following: "The younger * * * the children, the more difficult is certain knowledge of the defect and the less inclined are the parents, even when they can scarcely continue longer to doubt, formally to acknowledge it against their better hopes in the census list. Only with school age does the time arrive when the misfortune can no longer be denied."-Translated from Mayr: "Die Verbreitung der Blindheit, der Taubstummheit, des Blodsinns und des Irrsinns in Bayern" (Beiträge zur Statistik des Kónigreiche Bayern, XXXV. Heft, Munich, 1877, p. 30).

[^8]:    ${ }^{1}$ Figures given are for age groups "under 10 " and " 10 to 19 ," respectively. ${ }_{2}$ Includes only deaf and dum
    Figures include persons returned simply as dumb.

    - Figures given are for age groups " 20 to 44 ," " 45 to 64 ," and " 65 or over," respectively.

    Figures given are approximately for age groups "under 6," "6 to 12 ", and " 13 to 19 ," respectively
    Figures given are for age groups " 5 to 14 ," " 15 to 29 ", " 30 to 49, " " 50 to 69 ," and " 70 or over," respectively.
    Figures given are for age groups "under 6 " and "6 to 14,", respectively ${ }^{\text {Figures }}$ given are approximately for age groups "under 6 ," " 6 to 14, " " 15 to 39 to 63 ," and " 70 or over," respectively.
    10 Including Poland, but exclusive of Finlag
    ${ }^{11}$ Figures represent congenitally deaf and dumb only.
    ${ }^{13}$ Figures given are for age groups "under 10 ," " 10 to 14 ," " 15 to 24 ," " 25 to 44 ," " 45 to 64 ," and " 65 or over," respectively. 14 Caucasus, Siberia, and Central Asia. ${ }^{4}$ Exclusive of full-blooded aboriginals.
    ${ }^{16}$ Exclusive of Maoris and of population of annexed Pacific islands.
    ${ }^{17}$ In calculating these percentages, persons whose age was not reported have been excluded from the total.
    4 Por cont not shown where base is less than 100.

[^9]:    ${ }^{1}$ E. A. Fay, in his inveatigations concerning the results of marriages of the deaf, found that out of 4,136 marriages for which information was received on this point, in 3,242 , or more than threefourths ( 78.4 per cent), husband and wife both were deaf. (See Fay: Marriages of the Deaf in America. Washington, 1898, p. 24.)
    Of 4,220 married persons totally deaf from early childhood (under 5 years of age) for whom schedules were returned at the census of 1900 and who answered the inquiry as to deaf relatives, 3,182 , or three-fourths ( 75.4 per cent), reported that they had deaf husbands or wives.

[^10]:    ${ }^{1}$ Cf. the following passage from the report on the deaf for 1900 : " * * * the fact that an infant is deaf is not discovered, or is not certainly known, until after he is 2 years of age. At or about the age of 2 most children begin to speak, but the deaf child does not. This speechless condition attracts attention and he is then found to be also deaf. If during his infancy he has had some serious illness, the deafness is naturally attributed to that; if not, the natural assumption is that he was born deaf. It is probable that some of those reported deaf from birth really lost hearing in infancy after birth, and that some of those reported deaf from infancy after birth were really born deaf." -The Blind and the Deaf: 1900, p. 72.

[^11]:    ${ }^{1}$ Cf. the following: "When studying deaf mutism it has been found convenient to distinguish between congenital and acquired deafness. The line which separates these two classes is never definite. Pathologically it is almost absent. With the exception of the rather small number of cases due to congenital malformations, the morbid appearances found in the ears of deaf mutes show nothing characteristic in this respect. Generally, unless helped by a clinical history, we should be unable, at a given autopsy, to say whether the deafness were congenital or acquired."-J. Kerr Love: Deaf Mutism, a Clinical and Pathological Study, Glasgow, 1896, p. 159.
    ${ }_{2}$ The instructions relative to this revision were as follows:
    "At the beginning of the tabulation the figures under 'congenital'are to be completely corrected or supplemented by adding the figures for all cases in which the deaf-mute child in question had a goiter (Kropf) * * * or in which one or more brothers or sisters were deaf-mutes * * * excluding the cases in which it is stated that the brothers or sisters became deaf during the same infectious disease (meningitis, scarlet fever, measles) ****
    In the same way cases in which there has been destruction of the drum membrane are to be included as 'acquired.'"-Translated from Die Ergebnisse der fortlaufenden Statistik der Taubstummen uährend der Jahre 1902 bis 1905 (in Medizinal-statistische Mitteilungen aus dem Kaiserlichen Gesundheitsamte, Band XII, Heft 1, 1908, p. 5.)

[^12]:    3 "The ratio of congenitally deaf per 1,000 of all deaf-mutes in the United States, namely, 415.81, is a low one as compared with that found in other countries. For example, this ratio was, in Scotland, in 1881, 503; in Ireland, in 1881, 809; in Prussia, in 1880, 568; in Bavaria, in 1858, 749; in France, in 1876, 753; in Belgium, in 1835, 788; in Holland, in 1869, 665; in Norway, in 1886, 512; in Italy, in 1871, 822; in Austria, in 1886, for those not in public institutions, 840; for those in public institutions, 373; in Saxony, in 1880, 421; in Denmark, in 1886, 392." (Report on the Insane, Feeble-minded, Deaf and Dumb, and Blind in the United States at the Eleventh Census: 1890, p. 96.)

[^13]:    - ${ }^{1}$ Cf. also the following statement by a leading authority on deafmutism:
    ""*** at least 60 per cent of American deafness is acquired and much of it is due to a disease which is almost absent from the British Empire-cerebro-spinal fever."-J. Kerr Love: Deaf Mutism, a Clinical and Pathological Study, Glasgow, 1896, p. 219.

    Both in England and Wales and in Ireland the average annual reported death rate from cerebrospinal fever during the four-year period 1910-1913 was 0.4 per 100,000 of the total population; figures for Scotland are not available. For the registration area of the United States for the same period the reported average annual rate was 1.4 per 100,000.

[^14]:    1 Deaf and dumb population for whom special schedules were returned.
    2 Deaf for whom special schedules were returned less than 8 years of age when hearing wes lost.
    ${ }^{3}$ Deaf persons unable to speak at all.
    4 Deaf-mutes, exclusive of those reported as 16 years of age or over when hearing was lost.

[^15]:    ${ }^{2}$ Best: The Deaf, pp. 58, 59.

[^16]:    Based

[^17]:    ${ }_{1}^{1}$ Includes those for whom the age when hearing was lost was not reported.
    ${ }^{2}$ Per cent distribution not shown, as base is less than 100.

[^18]:    1 Includes those for whom the age when hearing was lost was not reported. 2 Includes those reported as having lost their hearing in infancy but without atatement as to the exact age.
    Includes the small number whose age at enumeration was not reported.

[^19]:    1 "This number [the number for whom a disease of the brain was reported as apparent cause of deafness] should probably in reality be increased somewhat, as many cases had manifestly been diagnosed erroneously as typhoid fever ("nerve fever")."-Translated from Die Ergebnisse der fortlaufenden Statistik der Taubstummen wahrend der Jahre 1902 bis 1905 (in Medizinal-Statistische Mitteilungen aus dem Kaiserlichen Gesundheitsamte, Band XII, Heft 1, 1908, p. 17).

[^20]:    ${ }^{1}$ See Appendix C, p. 213.

[^21]:    1 Less than onetenth of 1 per cent.

[^22]:    ${ }^{1}$ In 1880, 42.5 per cent of the pupils in schools for the deaf in the United States were females; in 1910, 46.4 per cent. (See American Annals of the Deaf, Vol. XXVI, p. 67; Vol. LVI, p. 21.)

[^23]:    ${ }^{1}$ Includes the small num number of " Includes the small number of "Other colored."

    * Based upon the population reporting as to education.

    4 Per cant not shown where base is less than 100.

[^24]:    ${ }^{1}$ Cf. the following from the report for 1900:
    "Failure to reply to the simple question whether the person could or could not read the lips can only be taken as an indication of ignorance as to what is meant by the term 'lip-reading.' This involves the further point that the persons who failed to reply were, as a matter of fact, unable to read the lips, for if they could do so they would have known the meaning of the question, and no apparent reason exists why they should not have answered it. It is hardly conceivable that several thousands of persons should have failed to answer 'yes' or 'no' to that particular question, while freely answering others, if they understood it."-The Blind and the Deaf: 1900, p. 88.

[^25]:    1 Includes the small number whose age at enumeration was not reported.
    5 Based upon the population reporting as to ability to read lips.
    ${ }^{3}$ Includes those for whom the age when hearing was lost was not reported.
    4 Includes those reported as having lost their hearing in infancy but without statement as to the exact age.

[^26]:    ${ }^{1}$ Includes those whose age was not reported.

[^27]:    ${ }^{2}$ Includes the small number whose age at enumeration was not reported.

[^28]:    ${ }^{1}$ Includes the small number whose age was not repor ted.

[^29]:    ${ }^{1}$ Kirby and Castle's Digest also contains a paragraph (84714) not specifically altered by subsequent legislation, empowering the board of trustees to extend the term of pupils recommended by the principal, "from time to time beyond the original period of 7 years, either for further instruction with a view to entering college or for perfecting themselves in their trades," provided that no more than 20 pupils may be so recommended in one year, nor anyone for more than three years' extension.
    ${ }^{2}$ Such is the provision which appears in Kirby and Castle's Digest, but the state has appropriated a sum of money for this purpose biennially since 1891, and in 1895 and 1897 the law specified that no part of the appropriation for clothing and traveling expenses should be refunded by the county from which indigent pupils were sent. The superintendent of the school reports that the costs are paid from state appropriations without recourse to the counties.

[^30]:    ${ }^{1}$ Carroll's Kentucky Statutes ( $\$ 8284$ ff) also contain the following provisions, which were, however, declared to be inoperative by the superintendent of the Kentucky School for the Deaf:

    When children whose parents are able to pay for their maintenance in whole or in part attend the school, the state pays only to the extent that the parents are not able to pay. All indigent deaf children residing in the state may be received into the school, maintained and educated gratuitously, so far as the funds of the institution will admit. When more children than can be received are offered the board must so apportion their number among the counties, that every county shall equally receive the benefits of the institution. The term of instruction is five years, but the board may allow pupils to remain after such time in order to complete their education. The board each year may select as many as five indigent pupils of good talents and character and retain them for two additional years at the expense of the state.

[^31]:    ${ }^{1}$ According to the principal of the Maryland State School for the Deaf this paragraph is rendered obsolete by the later compulsory education law.

[^32]:    ${ }^{1}$ According to the principal of the Rhode Island Institute for the Deaf this section, in practice, is not now considered as applying to the deaf.

[^33]:    ${ }^{1}$ According to the superintendent of the school, in actual practice pupils are admitted at the age of 6 years.

[^34]:    ${ }^{1}$ An asterisk (*) indicates that the school in question is supported chiefly or in large part by public funds.
    ${ }^{2}$ This institution has three branches-a school for boys and a school for girls at Westchester, and a school for girls in Brooklyn.

[^35]:    * If impossible to make a more definite reply, at least atate whether the person in question became deaf in childhood or after reaching adult age.

[^36]:    ${ }^{1}$ In addition there was a separate schedule for schools for the deaf. This contained precisely the same inquiries and differed mainly by the addition of the letter of authorization to the special agent in charge of the inquiry and the substitution for the first three paragraphs of instructions of a paragraph containing directions as to what information should be copied from the general population schedule and as to furnishing a copy of the schedule to the institution.

[^37]:    1 "Zentralblatt für das Deutsche Reich," 1901, pp. 434 ff.

[^38]:    ${ }^{1}$ The reply to the questions is made by words or numbers or by underscoring the appropriate words in the inquiry itself.
    ${ }^{2}$ The original is Krankheit.
    as indications of retinitis pigmentosa, which not infrequently occurs in connection with deaf-mutism, are to be noted hemeralopia and limitation of the field of vision, in addition to ophthalmoscopic conditions.

