

DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

SAM. L. ROGERS, DIRECTOR

BULLETIN 130

THE BLIND POPULATION

OF THE

UNITED STATES

1910



WASHINGTON
GOVERNMENT PRINTING OFFICE
1915

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LETTER OF TRANSMITTAL.

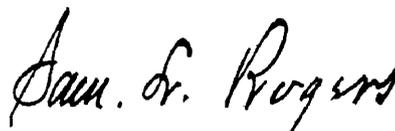
DEPARTMENT OF COMMERCE,
BUREAU OF THE CENSUS,
Washington, D. C., May 26, 1915.

SIR:

I transmit herewith a bulletin on the blind population of the United States in 1910. The census data relative to the blind were obtained in part from the schedules used in enumerating the general population of the United States, and in part from special schedules mailed to every person reported as blind on the population schedules. The bulletin herewith submitted presents a tabulation and discussion of the data obtained from the general population schedules. The final report on the blind, which is to appear later, will present also the data obtained from the special schedules.

This bulletin was prepared in the division of revision and results by Mr. Reginald L. Brown, under the supervision of Dr. Joseph A. Hill, expert special agent in charge of that division.

Respectfully,



Director of the Census.

To Hon. WILLIAM C. REDFIELD,
Secretary of Commerce.

THE BLIND POPULATION OF THE
UNITED STATES: 1910

THE BLIND POPULATION OF THE UNITED STATES: 1910.

The census data regarding the blind population of the United States in 1910 were obtained in part from the schedule employed in the enumeration of the general population, which contained a column for reporting cases of blindness, and in part from a special schedule mailed to each person who was reported as blind. This bulletin summarizes the main facts of statistical interest which can be brought out by a tabulation of the data on the general population schedule. It shows the composition of the blind population as regards sex, age, race and nativity, and marital condition, comparing it with that of the general population, and also gives statistics in regard to the occupations pursued by the blind. It will be followed later by a special report on the blind, which, in addition to a somewhat fuller analysis of the data derived from the population schedule, will include the additional information secured by means of the special schedule referred to above.

SUMMARY AND COMPARISON WITH EARLIER CENSUSES.

The total blind population enumerated at the population census of 1910 was 57,272, representing a decrease of 7,491, or 11.6 per cent, as compared with the number reported for 1900 (64,763). Owing to changes in the method of enumeration, however, as well as for other reasons, it is difficult to determine how far this represents an actual decrease. At the census of 1900 the population enumerators were required to return the name, sex, age, and post-office address of each blind person on a special schedule provided for that purpose, receiving, as a rule, an additional compensation of 5 cents for each name so returned. At the census of 1910, on the other hand, cases of blindness were, as already explained, noted on the general population schedule, the enumerators receiving no additional compensation for such returns. It is probable that the extra compensation paid in 1900, by stimulating the zeal of the enumerators, may have secured a much more complete return of the blind population at that census than in 1910; in fact, the number of persons originally reported as blind by the enumerators in 1900 was 101,123, as compared with 62,088 in 1910, the later year thus showing a decrease, on the basis of the original returns, of 39,036, or 38.6 per cent, as compared with the earlier.¹ Furthermore, at the census of 1910, in examining the answers on

the special schedules for the purpose of determining whether the persons returning them had been properly reported as blind, the definition of blindness which was adopted was somewhat more restrictive than that which appears to have been followed in 1900, with the result that many persons were eliminated in 1910 who would probably have been classed as blind at the earlier census. On the other hand, in tabulating the statistics for 1900 a total of 19,884 persons originally reported as blind but failing to return the special schedule of inquiry were entirely omitted, although it is probable that a large proportion of these persons, if not the majority, were actually blind, whereas at the present census all persons reported as blind by the population enumerators have been included, without regard to whether they returned the special schedule, unless definite information obtained by correspondence or from the schedules showed that they had been improperly reported as blind in the first instance. Owing to these differences in the methods followed at the two censuses, any comparison between the absolute numbers reported for the respective years is of doubtful value.

The census of 1910 was the ninth at which statistics in regard to the blind population have been secured, the enumeration of the blind having formed a regular feature of Federal census activities for a longer continuous period of time than any other inquiry except the decennial enumeration of the population; and even in the case of the general population the fundamental facts of sex, color, and age are the only subjects concerning which the statistics extend further back in unbroken series than do those of the blind. Moreover, so far as it has been possible to determine, the United States was the first country to make an enumeration of the blind a permanent feature of its official statistical activities, and apparently the first to take any official census of the blind whatever, although it is possible that one or two European countries may have made earlier enumerations. In spite of the

¹ The difference between these figures and those representing the blind population of the United States as given in the published reports for the respective years represents persons ascertained by correspondence or otherwise to have been incorrectly reported as blind, duplications in the returns, and also, in the case of the figure for 1900, persons failing to return the special schedule of inquiry sent out to each person reported as blind by the enumerators, these latter having been excluded altogether from the tabulation for that census.

long period over which the Federal statistics of the blind extend, however, they shed very little light on the question as to whether blindness is relatively more or less frequent at the present time than in the past. Differences in method and other causes have affected the completeness with which the blind population was enumerated at the different censuses; and in the more recent enumerations differences in the definition of blindness have brought in a further element of uncertainty as to the degree of comparability existing in the figures. On account of the historical interest attaching to the Federal census of the blind, however, Table 1 is presented, which shows the blind population of the United States as reported at each census from 1830 to 1910, inclusive, together with the number per 100,000 of the general population and the apparent percentage of increase or decrease as compared with the preceding census.

YEAR.	BLIND POPULATION OF THE UNITED STATES.		
	Total.	Per 100,000 general population.	Per cent of increase over preceding census. ¹
1910.....	57,272	62.3	-11.6
1900.....	64,763	85.2	28.1
1890.....	50,568	80.8	3.4
1880.....	48,928	97.6	140.8
1870.....	20,320	52.7	60.5
1860.....	12,658	40.3	29.2
1850.....	9,794	42.2	41.3
1840.....	6,932	40.6	27.3
1830.....	5,444	42.3	.....

¹ A minus sign (-) denotes decrease.

There is little question that for all censuses prior to 1880 the figures for the blind population are seriously deficient,¹ but they should, theoretically at least, be generally comparable with each other, as at all five censuses the enumerators were permitted to follow out their own ideas as to who should be reported as blind,² and no change of consequence was made during the period in the method of reporting. An analysis of the returns for the census of 1870 tends to show, however, that this census was somewhat more complete, particularly as regards the enumeration of negroes in the South, than those preceding it. Some part of the large increase between 1860 and 1870, it is true, probably resulted from blindness caused by wounds received or disease contracted in the Civil War, but the fact disclosed by a later table (Table 5) that the number

¹ "The figures for the United States censuses previous to 1880 are worthless so far as the calculation of ratios of blind to population are concerned." (Report on the Insane, Feeble-minded, Deaf and Dumb, and Blind in the United States at the Eleventh Census: 1890, p. 127.)

² In 1870, it is true, the enumerators were instructed to report only persons who were *totally* blind (instructions at previous censuses having been silent on this point), but in view of the considerable increase in the number of blind reported in 1870 as compared with 1860, it is hardly probable that this instruction brought about any material change.

of blind females shows an even greater relative increase during this decade than the number of blind males makes it apparent that other factors besides the war were contributory.

The census of 1880 was probably the most complete enumeration of the blind ever obtained in the United States, a special effort being made at this census to secure an accurate return of all the defective classes for which the Census Office was required to obtain statistics. Prior to this census a line or column on the general population schedule had been the only medium for securing the return of the blind population; in 1880, however, a special supplementary schedule for the blind was provided, on which the enumerator was required to answer certain special inquiries for each blind person enumerated, receiving an additional compensation of 5 cents for each name reported on this schedule. This schedule for the first time furnished the enumerators with definite instructions to assist them in determining who should be reported as blind, these instructions being as follows:

In this enumeration will be included not only the totally blind, but also the semiblind. No person will be carried on this schedule, however, who can see sufficiently well to read. * * * The totally blind are unable to distinguish forms or colors; the partially blind can distinguish forms or colors, but can not see to read, or at least not without such effort as to make reading practically impossible.

Actually, as a matter of fact, the decision as to whether a given person should be reported as blind was to a considerable extent still left to the judgment of the enumerator, since a test based on ability or inability to read manifestly can not be applied when the individual in question has never learned to read, as of course frequently happens, notably in cases where blindness is congenital or occurred in early childhood and in sections of the country where illiteracy is common. The enumerators' returns of the blind population were supplemented to a certain extent by correspondence with institutional officials and local physicians. The results of the special diligence employed at this census are reflected in the great relative increase shown in the number of blind persons enumerated as compared with 1870; in particular it seems probable that the specific statement that the enumerator was to include the "partially" blind may have resulted in the return of a considerable number of persons who would not have been reported at the previous census, when the instructions to the enumerators stated that the inquiry was intended to cover "total" blindness only.

Although the machinery employed in securing statistics of the blind was essentially the same in 1890 as in 1880, except that the enumerators' returns do not appear to have been supplemented by correspondence, the large decrease in the number of blind

persons reported per 100,000 of the general population indicates that there may perhaps have been a somewhat less complete enumeration at the later census. A change in the instructions also in all probability had some influence upon the number returned, the enumerators being required to report "every person who can not with each eye separately count accurately the number of fingers of another person held up before him at a distance of 1 foot." It will be noted that these instructions call for a return of persons blind in only one eye, as well as of those blind in both eyes. The two classes were, however, tabulated separately, and the figures for 1890 given in this bulletin relate in all cases to persons blind in both eyes.

The method of obtaining the statistics for 1900 has already been described; the principal change, as compared with 1890, consisted in substituting for the supplemental schedule formerly filled out by the enumerator an individual schedule which was sent by mail to each person reported as blind. At this census the test by means of which the enumerators were to determine whether a given case of defective vision was sufficient to constitute blindness was changed once more, to essentially the same basis as in 1880, the instructions reading as follows:

* * * 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 tabulating the returns, practically all persons filling out the special schedule appear to have been included, even if the blindness was confined to only one eye or the person reporting was suffering from merely defective vision without being blind in the strict sense of the term. These changes in the basis of enumeration and of tabulation probably account, at least in major part, for the fact that the number of blind tabulated at this census per 100,000 population was somewhat greater than in 1890, notwithstanding the elimination of all those persons who were originally enumerated as blind, but failed to return the special schedule.

The differences in method between the censuses of 1900 and 1910 have already been described (p. 9). In general, it should be clear from the preceding discussion that the figures shown in Table 1 are of little value as a measure of the actual increase or decrease in the relative frequency of blindness during the period covered. It is not improbable, nevertheless, that the changes in the ratio of the reported blind population to the total population shown by Table 1 may in some degree reflect actual changes in the prevalence of blindness. During the half century between 1860 and 1910 certain definite causes tending to produce an

increase in the relative frequency of blindness were in operation, conspicuous among these being the increase in the proportion of old people in the general population, the rapid industrial development of the country, with the consequent increase in blindness occasioned by industrial accidents or occupational diseases, and, during the earlier years of the period more particularly, the effects of the Civil War in causing blindness through wounds or disease incident to military service. It seems not unlikely that these causes contributed in some degree to the apparent increase in the ratio of the blind to the total population between 1860 and 1880. As against these influences there is the great advance in medical knowledge of the eye and its diseases, particularly during recent years, which has contributed greatly to the prevention of blindness, and also the movement for the prevention of industrial accidents and occupational diseases. These factors in turn may account in part for the decline in the ratio since 1880, especially as the statistics for the leading European countries taking censuses of the blind also show a tendency toward a decrease in the ratio during this period.

COMPARISON WITH FOREIGN COUNTRIES.

Table 2 shows, for the United States and for most of the foreign countries taking censuses of the blind, the blind population as reported in the latest year for which returns are at hand, together with the total population and the number of blind persons per 100,000 of the total population.

The total blind population of all the countries given in the above table is 1,194,346. The total population of these countries being 874,376,489, the ratio of blind in the aggregate is 136.6 per 100,000 population. The countries specified comprise about one-half of the estimated total population of the globe, and on that basis it might be estimated that the total number of blind persons in the world is about 2,390,000. Probably, however, this is an underestimate, as those regions not covered by a census are in large part inhabited by uncivilized or backward races, among whom blindness is likely to be more prevalent than it is where civilization is further advanced. The statistics are affected by so many different factors, such as differences in the methods and scope of the enumerations and in the constitution of the general population, particularly as regards age, that comparisons become difficult and uncertain; nevertheless, the ratios probably do indicate in a more or less general way the relative frequency of blindness in the respective countries. It is therefore of interest to observe that the ratio between the reported blind population and the total population in the United States is comparatively low, the only important countries showing lower ratios being Belgium, Denmark, Germany, the Netherlands, Canada, and New Zealand.

Table 2

COUNTRY.	Year.	Total population.	BLIND POPULATION.	
			Total.	Per 100,000 total population.
NORTH AMERICA.				
Bahama Islands.....	1901	53,735	135	251.2
Bermuda Islands.....	1901	20,961	13	(1)
British Honduras.....	1901	37,479	59	157.4
Canada.....	1911	7,206,642	3,238	44.9
Danish Antilles.....	1901	30,527	85	278.4
Grenada.....	1901	63,438	68	107.2
Jamaica.....	1911	831,383	1,740	209.3
Mexico.....	1910	15,100,369	11,862	78.2
Newfoundland and Labrador.....	1910	242,619	287	118.3
St. Lucia.....	1901	49,883	122	244.6
Trinidad and Tobago.....	1901	273,899	512	186.0
United States:				
Continental United States.....	1910	91,972,266	57,272	62.3
Hawaii.....	1910	191,909	180	93.8
Porto Rico.....	1910	1,118,012	1,608	143.4
SOUTH AMERICA.				
Argentina ²	1895	3,954,911	3,526	89.2
Bolivia ³	1900	1,633,610	2,126	130.1
Chile.....	1907	3,249,279	2,601	80.0
Uruguay.....	1908	1,042,686	842	80.8
EUROPE.				
Austria.....	1910	28,570,800	19,816	69.4
Belgium.....	1910	7,416,454	3,223	43.5
Bulgaria.....	1905	4,035,575	5,342	132.4
Cyprus.....	1901	237,152	1,732	730.3
Denmark ⁴	1911	2,757,075	1,452	52.7
England and Wales.....	1911	36,070,492	26,336	73.0
Finland.....	1900	2,712,562	3,229	119.0
France.....	1901	38,466,924	27,174	70.6
Germany.....	1900	56,367,178	34,334	60.9
Prussia.....	1910	40,165,219	20,953	52.2
Saxony.....	1910	4,806,661	2,760	47.0
Gibraltar.....	1901	27,460	33	120.2
Hungary.....	1900	19,254,559	19,377	100.6
Ireland.....	1911	4,390,219	4,312	98.2
Isle of Man and Channel Islands.....	1911	148,915	155	104.1
Italy.....	1901	32,475,253	38,160	117.5
Malta and Gozo.....	1901	207,890	418	201.1
Netherlands.....	1909	5,858,175	2,710	46.3
Norway.....	1910	2,357,790	2,183	92.6
Portugal ⁵	1911	5,960,656	7,916	132.8
Roumania.....	1899	5,956,690	4,967	83.4
Russia (European) ⁶	1897	102,845,117	207,368	201.6
Scotland.....	1911	4,760,904	3,317	69.7
Serbia.....	1900	2,492,882	2,345	94.1
Sweden.....	1900	5,136,441	3,413	66.4
Switzerland.....	1895-96	7,291,754	2,107	72.2
ASIA.				
Ceylon.....	1901	3,573,419	3,747	104.9
Formosa ⁷	1905	3,030,751	15,675	515.7
Hongkong ⁸	1911	438,873	225	51.3
India.....	1911	315,156,396	443,653	141.6
Philippine Islands ⁹	1903	6,987,686	15,811	226.3
Russia (Asiatic) ¹⁰	1897	22,794,904	40,532	177.8
AFRICA.				
Egypt ¹¹	1907	11,180,978	148,280	1,325.1
Gambia.....	1901	13,459	35	(1)
Mauritius and dependencies.....	1901	378,195	598	158.1
St. Helena.....	1901	5,200	3	(1)
Seychelles Islands.....	1901	19,258	22	(1)
Sierra Leone.....	1901	76,655	78	101.8
Uganda Protectorate ¹²	1911	2,462,469	7,823	317.7
Union of South Africa.....	1911	5,973,394	6,550	109.7
Cape of Good Hope.....	1911	2,564,905	3,082	120.2
Natal.....	1911	1,194,043	1,036	86.8
Orange Free State.....	1911	528,174	516	97.7
Transvaal.....	1911	1,686,212	1,916	113.6
AUSTRALASIA.				
Commonwealth of Australia ¹⁴	1911	4,455,005	3,142	70.5
New South Wales.....	1911	1,646,734	1,011	61.4
Queensland.....	1911	605,818	383	63.2
South Australia.....	1911	408,558	358	87.6
Tasmania.....	1911	191,211	146	76.4
Victoria.....	1911	1,315,551	1,102	83.8
Western Australia.....	1911	282,114	142	50.3
New Zealand ¹⁵	1911	1,008,468	482	47.8

1 Ratio not shown by reason of the smallness of the numbers involved.
 2 Exclusive of uncivilized Indians.
 3 Enumerated population only.
 4 Exclusive of Faroe Islands.
 5 Includes Azores and Madeira.
 6 Including Poland, but exclusive of Finland.
 7 In the year 1888.
 8 Chinese population.
 9 Includes 1,754,545 persons for whom no returns as to infirmities were secured. These were deducted in computing the ratio.
 10 Civilized population.
 11 Caucasus, Siberia, and Central Asia.
 12 Exclusive of estimated Badawi population.
 13 Native population in administered districts.
 14 Exclusive of full-blooded aborigines. Includes Northern Territory and Federal Capital Territory.
 15 Exclusive of Maoris and of population of annexed Pacific islands.

GEOGRAPHIC DISTRIBUTION OF THE BLIND.

Table 3 shows, for the different geographic divisions and states, the total blind population reported in 1910 and in 1900, together with the number of blind persons enumerated per 100,000 of the general population. In connection with this table, however, what has previously been said as to the general comparability of the figures for the two censuses should be borne in mind.

Table 3

DIVISION AND STATE.	BLIND POPULATION.			
	1910		1900	
	Total.	Per 100,000 general population.	Total.	Per 100,000 general population.
UNITED STATES.....	57,272	62.3	64,763	85.2
GEOGRAPHIC DIVISIONS:				
New England.....	4,090	62.4	4,846	86.7
Middle Atlantic.....	10,001	51.8	10,931	70.7
East North Central.....	11,731	64.3	14,666	91.7
West North Central.....	6,679	57.4	8,714	84.2
South Atlantic.....	8,279	67.9	9,159	87.7
East South Central.....	7,019	83.5	8,221	108.9
West South Central.....	5,621	64.0	5,264	80.6
Mountain.....	1,787	67.9	1,307	78.0
Pacific.....	2,065	49.3	1,655	68.5
NEW ENGLAND:				
Maine.....	585	78.8	724	104.3
New Hampshire.....	201	67.6	417	101.3
Vermont.....	301	84.6	456	132.7
Massachusetts.....	2,046	60.8	2,217	79.0
Rhode Island.....	314	57.9	285	66.5
Connecticut.....	553	49.6	747	82.2
MIDDLE ATLANTIC:				
New York.....	4,692	51.5	5,486	75.5
New Jersey.....	1,127	44.4	1,004	53.3
Pennsylvania.....	4,182	54.6	4,441	70.5
EAST NORTH CENTRAL:				
Ohio.....	3,740	78.5	4,466	107.4
Indiana.....	2,121	78.5	2,987	118.7
Illinois.....	2,975	52.8	3,767	78.1
Michigan.....	1,574	56.0	1,946	80.4
Wisconsin.....	1,321	56.6	1,500	72.5
WEST NORTH CENTRAL:				
Minnesota.....	881	42.4	887	50.6
Iowa.....	1,388	62.4	2,014	90.2
Missouri.....	2,442	74.1	3,325	107.0
North Dakota.....	187	28.9	168	52.6
South Dakota.....	268	45.9	280	69.7
Nebraska.....	464	38.9	640	60.0
Kansas.....	1,069	63.2	1,400	95.2
SOUTH ATLANTIC:				
Delaware.....	131	64.7	142	76.9
Maryland.....	802	61.9	983	82.7
District of Columbia.....	223	67.4	202	72.5
Virginia.....	1,649	80.0	1,589	85.7
West Virginia.....	797	65.3	925	96.5
North Carolina.....	1,593	70.8	1,788	94.4
South Carolina.....	1,011	66.7	1,102	82.2
Georgia.....	1,701	65.2	2,034	91.8
Florida.....	402	53.4	394	74.5
EAST SOUTH CENTRAL:				
Kentucky.....	2,153	94.0	2,780	129.5
Tennessee.....	1,956	89.5	2,400	118.8
Alabama.....	1,572	73.5	1,791	97.9
Mississippi.....	1,338	74.5	1,250	80.6
WEST SOUTH CENTRAL:				
Arkansas.....	1,201	76.3	1,587	121.0
Louisiana.....	1,107	66.8	1,071	77.5
Oklahoma.....	874	52.7	511	64.7
Texas.....	2,439	62.6	2,095	68.7
MOUNTAIN:				
Montana.....	168	44.7	99	40.7
Idaho.....	158	48.5	111	68.6
Wyoming.....	48	32.9	20	21.6
Colorado.....	378	47.3	295	54.7
New Mexico.....	554	169.3	450	230.4
Arizona.....	196	95.9	69	56.1
Utah.....	188	50.4	207	74.8
Nevada.....	97	118.5	56	132.3
PACIFIC:				
Washington.....	439	38.4	210	40.5
Oregon.....	297	44.1	249	60.2
California.....	1,320	55.9	1,196	80.5

Both in 1910 and in 1900 the ratio of the blind to the total population was higher in the East South Central division than in any other geographic division, the prominence of this division in this respect probably being due to the fact that it contains the states of

Kentucky and Tennessee, in certain parts of which trachoma, one of the leading causes of blindness, is especially prevalent, although the fact that mining, a branch of industry containing a special hazard of blindness from accident, is carried on to an important extent in this division may play some part in raising the ratio. Of the individual states, New Mexico showed the highest ratio at each census, followed by Nevada in 1910 and Vermont in 1900; the high ratio for the first two states named is probably occasioned by the fact that Indians, among whom trachoma is more or less endemic in these sections of the country, constitute a relatively large element in their population, while that for Vermont resulted from the exceptionally high percentage of persons at the older ages, when the incidence of blindness is greatest, in its population.

For both years the lowest ratio shown for any geographic division is that for the Pacific division, the Middle Atlantic division ranking next. The low rank of the Pacific division in respect to the relative frequency of blindness is probably due mainly to the circumstance that this section of the country is to a con-

siderable extent of comparatively recent settlement, newly settled regions normally having a relatively small blind population by reason of the fact that blind persons are not apt to migrate from the district in which they live. In the case of the Middle Atlantic division it should be noted that the population of this division comprises a relatively large number of the more recent immigrants, who have not reached the age when blindness is most frequent, while the fact that in this division a very large proportion of the population lives in large cities, where facilities for treating eye diseases are especially advantageous, may also account in part for the low ratio. Of the individual states, North Dakota shows the lowest ratio for 1910, Wyoming ranking next, while for 1900 the lowest ratios are shown for Wyoming and Washington, all these being states which are to a greater or less extent still in process of settlement.

The differences existing between the various states with respect to the prevalence of blindness are brought out graphically by the following map, which shows for each state the number of blind persons reported per 100,000 of the general population in 1910.

BLIND POPULATION REPORTED PER 100,000 OF THE GENERAL POPULATION, BY STATES: 1910.

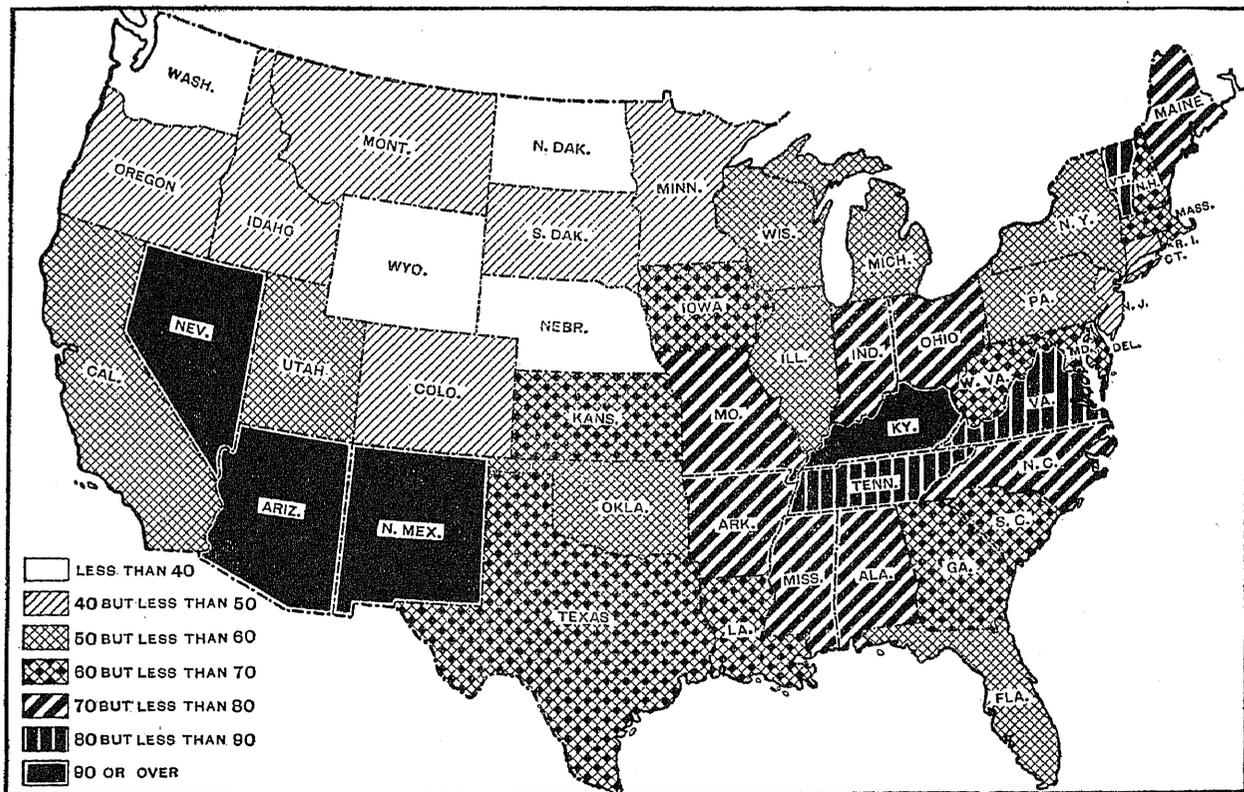


Table 4 shows, for 1910 and 1900, the per cent distribution by geographic divisions of the blind popula-

tion of the United States in comparison with that of the total population.

Table 4

DIVISION.	PER CENT DISTRIBUTION OF POPULATION.			
	Total.		Blind.	
	1910	1900	1910	1900
United States.....	100.0	100.0	100.0	100.0
New England.....	7.1	7.4	7.1	7.5
Middle Atlantic.....	21.0	20.3	17.5	16.9
East North Central.....	19.8	21.0	20.5	22.6
West North Central.....	12.7	13.6	11.7	13.5
South Atlantic.....	13.3	13.7	14.5	14.1
East South Central.....	9.1	9.9	12.3	12.7
West South Central.....	9.6	8.6	9.8	8.1
Mountain.....	2.9	2.2	3.1	2.0
Pacific.....	4.6	3.2	3.6	2.6

The distribution of the blind population shows on the whole a fairly close correspondence to that of the total population. By reason of the relatively low frequency of blindness in the Middle Atlantic division, however, this division, although ranking first in total population in 1910, ranked only second in blind population, its place in the latter respect being taken by the East North Central division, which ranked second in total population. The most conspicuous difference between the percentage of the total population reported for any division and the corresponding percentage for the blind population is in the case of the East South Central division, which contained 12.3 per cent of the blind population as compared with 9.1 per cent of the total population. This results mainly from the high ratio of the blind to the total population in Kentucky and Tennessee, to which reference has already been made, these states containing 3.8 and 3.4 per cent, respectively, of the blind population of the United States, as compared with 2.5 per cent and 2.4 per cent, respectively, of the total population.

SEX.

Table 5 shows for each census from 1850 to 1910, inclusive, the male and female blind population of the United States, respectively, together with the number of blind males per 100 blind females, and the number of males per 100 females in the total population. Comparative figures for 1830 and 1840 are not available.

Table 5

YEAR.	BLIND POPULATION OF THE UNITED STATES.			Males per 100 females in the general population.
	Male.	Female.	Males per 100 females.	
1910.....	32,443	24,829	130.7	106.0
1900.....	37,054	27,709	133.7	104.4
1890.....	28,080	22,488	124.9	105.0
1880.....	26,748	22,180	120.6	103.6
1870.....	11,343	8,977	126.4	102.2
1860.....	7,227	5,431	133.1	104.7
1850.....	5,465	4,339	125.7	104.3

At each census the number of blind males has been considerably in excess of the number of blind females, the number of males per 100 females in the blind population in 1910 being 130.7. The fact that the ratio of males to females in the blind population is so much

higher than in the general population is to be explained by the fact that certain important causes of blindness, particularly injuries in mine explosions and other industrial accidents and wounds received in military service, are causes affecting the male population almost exclusively. The variations from census to census in the ratio of blind males to blind females are not easy to explain. The decrease in the ratio between 1860 and 1880 may result in part from an increased accuracy of enumeration, affecting the number of blind females to a somewhat greater extent relatively than the number of blind males; cases of blindness from injury, which, as already pointed out, occur among the male population to a much greater extent than among the female, are perhaps less likely to be missed than cases of blindness from disease, which constitute the bulk of the cases found among the female population. The increase in the ratio between 1880 and 1900 may be accounted for, at least in part, by the great industrial growth of the country during this period, one result of which would naturally be an increase in the number of cases of blindness from industrial accident or occupational disease, and hence in the number among the male population.

General Table 1 (p. 41) shows the total male and female blind population reported for each geographic division or state in 1910. Table 6 shows, for each geographic division, the number of blind males and blind females per 100,000 of the general population of the same sex, with the excess of the male ratio over the female ratio, and also the number of males per 100 females in the blind population, in comparison with that in the total population.

Table 6

DIVISION.	BLIND POPULATION: 1910.				Males per 100 females in the general population: 1910.
	Number per 100,000 general population of same sex.			Males per 100 females.	
	Male.	Female.	Excess of male ratio over female ratio.		
United States.....	68.5	55.6	12.9	130.7	106.0
New England.....	68.2	56.7	11.5	119.5	99.3
Middle Atlantic.....	57.8	45.5	12.3	131.2	103.3
East North Central.....	71.2	56.9	14.3	132.8	106.0
West North Central.....	63.8	50.3	13.5	139.5	109.9
South Atlantic.....	73.5	62.2	11.3	119.7	101.2
East South Central.....	90.2	76.6	13.6	120.1	101.9
West South Central.....	68.7	58.9	9.8	125.1	107.2
Mountain.....	74.8	58.9	15.9	162.4	127.9
Pacific.....	58.7	37.1	21.6	205.0	129.5

In every division the blind are more numerous relatively among the male population than among the female. The variations between the different divisions in the excess of the ratio for males over that for females probably reflect chiefly variations in the extent to which occupations having a special hazard of blindness and more or less confined to the male population are carried on. In six of the nine divisions

the excess of the male ratio over the female ratio shows a fairly close correspondence to the excess for the United States as a whole, the exceptions being the Pacific and Mountain divisions, whose important mining interests result in a specially high ratio among the male population as compared with the female, and the West South Central division, which is mainly agricultural and with almost no industries having a special hazard of blindness, and where the divergence between the ratios for the two sexes is comparatively small.

As was to be expected, every division shows an excess of males over females in the blind population, the excess being greatest in the Pacific division, where there are more than two blind males to every blind female, and smallest in the New England division. The variations in the ratios for the respective divisions are doubtless influenced in the main by two factors—variations in the ratio of males to females in the popu-

lation as a whole and variations in the relative importance of industries having a special hazard of blindness for males only. Thus the low ratio for the New England division is due mainly to the excess of females over males in the population of the division as a whole, while the high ratios for the Pacific and Mountain divisions are due in part to the extremely high ratios of males to females in the total population of these divisions and in part to their extensive mining activities, the wide difference between the sex ratios for the blind and the total population indicating clearly the importance of the latter factor in determining the ratio.

Table 7 shows, for the principal foreign countries publishing statistics of the blind, the total male and female blind population, the number per 100,000 population of the same sex, and the number of males per 100 females in comparison with the number of males per 100 females in the general population.

COUNTRY.	Year.	BLIND POPULATION.					Males per 100 females in the general population.	COUNTRY.	Year.	BLIND POPULATION.					Males per 100 females in the general population.
		Male.		Female.		Males per 100 females.				Male.		Female.		Males per 100 females.	
		Total.	Per 100,000 general population of same sex.	Total.	Per 100,000 general population of same sex.					Total.	Per 100,000 general population of same sex.	Total.	Per 100,000 general population of same sex.		
NORTH AMERICA.							EUROPE—continued.								
Bermuda Islands.....	1901	7	(1)	6	(1)	(2)	Portugal ⁶	1911	3,861	136.5	4,055	129.5	95.2	90.3	
Canada.....	1911	1,850	48.4	1,388	41.0	133.3	Roumania.....	1889	2,979	98.4	1,988	67.8	149.8	103.3	
Danish Antilles.....	1901	34	242.1	51	309.4	(2)	Russia (European) ⁷	1897	96,608	191.4	110,760	211.4	87.2	96.3	
Grenada.....	1901	30	100.0	38	113.6	(2)	Scotland.....	1911	1,638	70.9	1,679	68.5	97.6	94.2	
Jamaica.....	1911	887	223.2	853	196.6	104.0	Serbia.....	1900	1,206	98.8	1,079	89.1	117.3	105.8	
Mexico.....	1910	7,116	94.8	4,746	62.0	149.9	Sweden.....	1900	1,671	66.7	1,742	66.2	95.9	95.3	
Trinidad and Tobago.....	1901	267	184.8	245	189.3	109.0	Switzerland ⁸	1895-6	1,109	78.2	998	66.5	111.1	94.5	
United States:							ASIA.								
Continental United States.....	1910	32,443	68.5	24,829	55.6	130.7	Ceylon.....	1901	2,269	119.2	1,478	88.5	153.5	114.0	
Hawaii.....	1910	112	91.0	68	98.8	(2)	Formosa ⁴	1905	8,314	516.1	7,361	515.1	112.9	112.7	
Porto Rico.....	1910	727	130.5	876	156.2	83.0	Hongkong ⁹	1911	101	35.7	124	79.7	81.5	182.1	
SOUTH AMERICA.															
Argentina ⁵	1895	1,748	83.7	1,778	95.3	98.3	India.....	1911	221,916	138.3	221,737	144.9	100.1	104.8	
Bolivia ⁴	1900	1,187	144.9	939	115.3	126.4	Philippine Islands ¹¹	1903	7,868	225.0	7,943	227.5	99.1	100.2	
Chile.....	1907	1,513	93.2	1,088	67.0	139.1	Russia (Asiatic) ¹²	1897	19,596	163.1	20,936	194.2	93.6	111.5	
Uruguay.....	1908	416	78.4	426	83.2	97.7	AFRICA.								
EUROPE.															
Austria.....	1910	10,175	72.5	9,641	66.3	105.5	Egypt ¹³	1907	69,027	1,229.0	79,253	1,422.0	87.1	100.8	
Belgium.....	1910	1,740	47.3	1,483	39.7	117.3	Mauritius and dependencies.....	1901	399	195.1	199	114.6	200.5	117.8	
Bulgaria.....	1905	2,430	113.1	2,012	147.2	85.4	St. Helena.....	1901	1	(1)	2	(1)	(2)	(1)	
Cyprus.....	1901	916	756.6	816	703.7	112.3	Seychelles Islands.....	1901	14	(1)	8	(1)	(2)	(1)	
Denmark ⁶	1911	691	51.6	761	53.6	90.8	Sierra Leone.....	1901	39	93.2	39	112.1	(2)	120.3	
England and Wales.....	1911	13,257	76.0	13,079	70.2	101.4	Uganda Protectorate ¹⁴	1911	4,555	409.2	3,268	242.2	139.4	82.5	
Finland.....	1900	1,209	90.1	2,020	147.4	59.0	Union of South Africa.....	1911	3,525	114.8	3,025	104.2	116.5	105.7	
France.....	1901	14,721	77.8	12,453	63.8	118.2	Cape of Good Hope.....	1911	1,773	141.2	1,309	100.0	135.4	95.9	
Germany.....	1900	17,818	64.2	16,516	57.7	107.9	Natal.....	1911	534	94.6	502	79.8	106.4	89.7	
Prussia.....	1910	10,956	55.2	9,997	49.2	109.6	Orange Free State.....	1911	297	107.0	219	87.4	135.6	110.7	
Saxony.....	1910	1,244	53.5	1,016	40.9	122.4	Transvaal.....	1911	921	94.8	995	139.2	92.6	135.9	
Gibraltar.....	1901	14	89.0	19	162.0	(3)	AUSTRALASIA.								
Hungary.....	1900	9,580	100.0	9,797	101.3	97.8	Commonwealth of Australia ¹⁵	1911	1,754	75.8	1,388	64.8	126.4	105.0	
Ireland.....	1911	2,133	97.3	2,179	99.1	97.9	New South Wales.....	1911	591	68.9	420	53.2	140.7	108.7	
Isle of Man and Channel Islands.....	1911	79	112.6	76	96.5	(1)	Queensland.....	1911	213	64.6	170	61.5	125.3	119.3	
Italy.....	1901	21,105	130.6	17,055	104.5	123.7	South Australia.....	1911	192	92.6	166	82.5	115.7	103.1	
Malta and Gozo.....	1901	221	193.8	197	209.9	112.2	Tasmania.....	1911	78	79.9	68	72.6	(2)	104.2	
Netherlands.....	1909	1,349	46.5	1,361	46.0	99.1	Victoria.....	1911	595	90.8	507	76.8	117.4	99.3	
Norway.....	1910	1,175	104.6	1,008	81.6	116.6	Western Australia.....	1911	85	52.6	57	47.3	(2)	134.0	
							New Zealand ¹⁶	1911	279	52.5	203	42.6	137.4	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.

³ Exclusive of uncivilized Indians.

⁴ Enumerated population only.

⁵ Exclusive of Faroe Islands.

⁶ Includes Azores and Madeira.

⁷ Including Poland, but exclusive of Finland.

⁸ Figures for general population used in computing ratios relate to 1888.

⁹ Chinese population.

¹⁰ In computing this ratio persons for whom no returns as to infirmities were secured were deducted from the general population.

¹¹ Civilized population.

¹² Caucasus, Siberia, and Central Asia.

¹³ Exclusive of estimated Badawi population.

¹⁴ Native population in administered districts.

¹⁵ Exclusive of full-blooded aboriginals. Includes Northern Territory and Federal Capital Territory.

¹⁶ Exclusive of Maoris and of population of annexed Pacific islands.

AGE.

As has already been suggested, the subject of age is one of fundamental importance in any study of statistics of the blind, by reason of the fact that blindness, while liable to occur at any age, is peculiarly a defect incident to old age. For this reason special interest attaches to Table 8, which shows the age distribution of the blind population in 1910 in comparison with that of the total population, and also the number of blind persons per 100,000 of the general population of the same age.

AGE GROUP.	POPULATION OF THE UNITED STATES: 1910.				
	Total.		Blind.		
	Number.	Per cent distribution.	Number.	Per cent distribution.	Number per 100,000 general population of same age.
Total.....	91,972,266	.....	57,272	.....	62.3
Age reported.....	91,803,211	100.0	57,121	100.0	62.2
Under 5 years.....	10,631,364	11.6	551	1.0	5.2
Under 1 year.....	2,217,342	2.4	70	0.1	3.2
1 to 4 years.....	8,414,022	9.2	481	0.8	5.7
5 to 9 years.....	9,760,632	10.6	1,248	2.2	12.8
10 to 14 years.....	9,107,140	9.9	1,997	3.5	21.9
15 to 19 years.....	9,033,003	9.9	2,200	3.9	24.3
20 to 24 years.....	9,056,984	9.9	2,253	3.9	24.9
25 to 29 years.....	8,180,003	8.9	2,247	3.9	27.5
30 to 34 years.....	6,972,185	7.6	2,201	4.0	32.9
35 to 39 years.....	6,396,100	7.0	2,530	4.4	39.6
40 to 44 years.....	5,261,587	5.7	2,797	4.9	53.2
45 to 49 years.....	4,469,197	4.9	3,325	5.8	74.4
50 to 54 years.....	3,900,791	4.2	3,748	6.6	106.1
55 to 59 years.....	2,786,951	3.0	3,665	6.5	132.6
60 to 64 years.....	2,207,150	2.5	4,483	7.8	197.7
65 to 69 years.....	1,679,503	1.8	5,102	8.9	303.8
70 to 74 years.....	1,113,728	1.2	5,111	8.9	458.9
75 to 79 years.....	667,302	0.7	5,108	8.9	765.5
80 to 84 years.....	321,754	0.4	4,129	7.2	1,293.3
85 years or over.....	167,237	0.2	4,306	7.5	2,574.8
Age not reported.....	169,055	.....	151	.....	.....

It will at once be observed that, in respect to age distribution, the situation in the blind population is almost the exact reverse of that in the population at large, in that the number of blind persons increases, generally speaking, with each succeeding age group, while in the general population the number of persons enumerated decreases with each succeeding group. Two distinct causes contribute to bring about this situation. In the first place, since blindness is a defect which may occur at any period of life, and which is ordinarily not associated with any physical disorder likely to occasion death, the number of blind persons in any given generation will under normal conditions increase steadily with advancing years up to extreme old age. A second and more important factor contributing to an increase in the amount of blindness in the later age groups as compared with the earlier is found in the circumstance that two of the chief causes of blindness—namely, cataract, the leading single cause, and glaucoma—are peculiarly affections incident to advancing years; cataract, it is true, may occur at any period of life, but is so commonly asso-

ciated with old age that the term "senile cataract" is employed as a generic designation for all forms of noncongenital cataract except those resulting directly from traumatism or disease. As a result of these two important factors approximately one-half (49.4 per cent) of the total blind population reported in 1910 were 60 years of age or over, while the corresponding proportion for the general population was only 6.8 per cent, or about one-sixteenth. The contrast may be brought out in another way, by a comparison of the median ages. The median age of the general population in 1910 was 24 years—that is, one-half of the general population were under 24 years of age, while one-half had passed that age—while the median age of the blind population was 59.6 years, or about two and one-half times as great.

As a result of these contrasting tendencies, the number of blind persons reported per 100,000 of the general population of the same age increases with each succeeding group, from 3.2 for the group comprising infants under 1 year of age to the high figure of 2,574.8 for persons 85 years of age or over. During the earlier years of life the increase is comparatively slow, but beginning with the age of 40 it proceeds at a constantly accelerated rate.

The small number of infants under 1 year of age reported as blind (70) is at first sight somewhat surprising in view of the widespread publicity that has been given to the campaign for the prevention of blindness among newly born infants. As a matter of fact, however, it is probable that any enumeration of the blind will always be seriously defective as far as this particular age group is concerned by reason of the fact that in a large proportion of cases of children born blind or going blind soon after birth some time elapses before the existence of blindness is recognized, and also for the reason that parents will always be more or less reluctant to admit having blind infants, especially where the blindness is due to ophthalmia neonatorum, which involves a certain stigma to the parents by reason of the fact that in the majority of instances it has its origin in venereal infection. The returns as to the number of blind children from 1 to 4 years of age are also in all probability somewhat deficient, though by no means to the same extent as those for infants under 1 year.

Table 9 shows the age distribution of the blind population of the United States as reported at each census from 1860 to 1910. For censuses prior to 1860 statistics as to the age of the blind population are not available. While, as already indicated, the absolute numbers for the respective censuses are incomparable, the percentages should be reasonably comparable, as there is no very strong ground for supposing that omissions in the returns would materially affect the age distribution of the reported population. In order to make the comparison it is necessary to employ a somewhat different grouping from that shown in other tables.

	BLIND POPULATION OF THE UNITED STATES.					
	1910	1900	1890	1880	1870	1860
	NUMBER.					
Total.....	57,272	64,763	50,568	48,928	20,320	12,658
Under 5 years.....	551	645	763	934	319	322
Under 1 year.....	70	(1)	100	108	40	40
1 to 4 years.....	481	(1)	663	826	279	282
5 to 9 years.....	1,248	1,662	1,421	1,823	800	573
10 to 14 years.....	1,997	2,873	2,069	2,730	1,317	760
15 to 19 years.....	2,200	3,128	2,218	2,863	1,365	889
20 to 39 years.....	9,321	9,885	8,467	9,237	4,291	2,686
40 to 59 years.....	13,565	15,034	12,089	11,043	4,692	2,861
60 years or over.....	28,239	31,246	22,809	20,298	7,529	4,543
Age not reported.....	151	290	732	.....	7	24
	PER CENT DISTRIBUTION. ²					
Total.....	100.0	100.0	100.0	100.0	100.0	100.0
Under 5 years.....	1.0	1.0	1.5	1.9	1.6	2.5
Under 1 year.....	0.1	(1)	0.2	0.2	0.2	0.3
1 to 4 years.....	0.8	(1)	1.3	1.7	1.4	2.2
5 to 9 years.....	2.2	2.6	2.9	3.7	3.9	4.5
10 to 14 years.....	3.5	4.5	4.2	5.6	6.5	6.0
15 to 19 years.....	3.9	4.9	4.5	5.9	6.7	7.0
20 to 39 years.....	16.3	15.3	17.0	18.9	21.1	21.3
40 to 59 years.....	23.7	23.3	24.3	22.6	23.1	22.6
60 years or over.....	49.4	48.5	45.8	41.5	37.1	36.0

¹ Separate figures not available.

² In calculating these percentages, persons whose ages were not reported have been excluded from the total.

The most striking fact brought out by this table is the steady increase in the proportion of persons 60 years of age or over in the blind population throughout the half century covered by the table, such persons constituting only 36 per cent, or somewhat more than one-third, of the total in 1860, as compared with 49.4 per cent, or practically one-half, 50 years later. This is primarily due to an increase in the relative importance of this age group in the general population, persons 60 years of age or over representing only 4.3 per cent of the total population of the United States in 1860, as compared with 6.8 per cent in 1910; old age being the period of life in which blindness is most prevalent, a relatively small increase in the proportion of the general population over 60 years will normally be accompanied by a relatively large increase in the proportion of blind above that age. The change noted in the age distribution of the general population is, in fact, more than sufficient to account for the change in the age distribution of the blind. But of course the age of the blind population is also affected by other factors the influence of which is not so easily determinable. Among these may be mentioned the development of medical knowledge and treatment of diseases of the eye, which dates practically from the invention of the ophthalmoscope in 1851, and is therefore practically synchronous with the period covered by the table; the probable increase in cases of blindness caused by industrial accidents; and the development of the campaign for the prevention of blindness. Doubtless these factors have affected the age distribution of the blind, but in just what way or to what extent the available statistics do not indicate.

In marked contrast to the consistent increase in the relative importance of the age group comprising

persons 60 years of age or over is the decrease in the importance of the groups comprising persons under 20. In 1860 almost exactly one-fifth (20.1 per cent) of the blind population reported was less than 20 years of age, while in 1910 the proportion was but slightly more than one-tenth (10.5 per cent), each of the four 5-year age groups into which persons under 20 are divided sharing the decrease. These figures, taken in conjunction with the fact that in 1910 the absolute number reported in each of the age groups under 20 years was the smallest for any census since the inauguration in 1880 of definite attempts to secure scientific statistics of the blind, make it reasonably certain that whatever the tendency may be as to increase or decrease in the amount of blindness in the population taken as a whole, or in the adult population, there has been a decided decrease in its prevalence among the youngest classes.

Of the remaining groups, that comprising persons from 20 to 39 years of age shows a marked decrease from 1860 to 1910 in its proportion of the total, and that comprising persons from 40 to 59 years of age a slight increase. The net result of the various changes in the age distribution of the blind population has been to bring about a considerable increase in the median age, as shown by the following table, which gives the median age of the blind population at each census from 1860 to 1910, inclusive, compared with that of the total population.

YEAR.	MEDIAN AGE OF POPULATION OF THE UNITED STATES. ¹		YEAR.	MEDIAN AGE OF POPULATION OF THE UNITED STATES. ¹	
	Total.	Blind.		Total.	Blind.
1910.....	24.0	59.6	1880.....	20.9	52.3
1900.....	22.9	58.9	1870.....	20.1	49.0
1890.....	21.4	56.7	1860.....	19.4	47.7

¹ Based upon the population whose age was reported.

The median age of the blind population reported in 1860 was 47.7 years, as compared with 59.6 years, as already noted, in 1910; in other words, the median age of this class of the population has increased about 12 years during the half century covered by the table. The blind population of the United States at the present time is thus a distinctly older population than it was 50 years ago, and it is probable that this tendency toward concentration in the older age groups will become even more prominent in the future, as increasing knowledge concerning the occupations involving a special risk of blindness from accident or occupational disease permits the development of more effective means of combating the industrial hazard, as the campaign for the prevention of blindness from ophthalmia neonatorum becomes more widely spread and more effective, and as the recently instituted campaign of the United States Public Health Service in the regions where trachoma is endemic makes its results felt.

THE BLIND IN THE UNITED STATES.

Table 11 presents statistics regarding the age distribution of the blind 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 shown for the majority of the countries included; wherever this has been done, however, the grouping employed has been indicated by means of a footnote.

TABLE 11.—BLIND POPULATION OF THE UNITED STATES AND OF FOREIGN COUNTRIES, CLASSIFIED ACCORDING TO AGE, WITH NUMBER PER 100,000 OF THE GENERAL POPULATION OF THE SAME AGE.

COUNTRY.	Year.	BLIND POPULATION.								
		Total.	Under 5 years of age.	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.
		NUMBER.								
AMERICA.										
Canada.....	1911	3,238	1 150	(1)	1 272	(1)	539	698	1,568	11
United States:										
Continental United States.....	1910	57,272	551	1,248	1,997	2,200	9,321	13,565	28,239	151
Hawaii.....	1910	180	4	1	2	6	46	72	49	.....
Porto Rico.....	1910	1,603	18	38	46	54	195	344	908	.....
EUROPE.										
Bulgaria.....	1905	5,342	66	96	154	190	674	955	3,207	.....
Denmark ²	1911	1,452	38	56	93	71	237	323	630	4
England and Wales.....	1911	26,336	465	609	775	905	3,621	7,527	9,840	.....
Finland.....	1900	3,229	13	38	91	113	490	821	1,663	.....
France.....	1901	27,174	4 800	(4)	41,548	(4)	3,191	5,931	15,502	202
Germany.....	1900	34,334	059	996	1,344	1,362	5,920	8,792	15,204	57
Prussia.....	1910	20,953	403	637	878	933	3,095	5,404	8,976	27
Saxony.....	1910	2,260	35	179	(5)	340	570	703	433	.....
Hungary.....	1900	19,377	6 163	1,088	(6)	770	3,127	4,785	9,427	17
Ireland.....	1911	4,312	16	27	47	79	475	836	2,832	.....
Italy.....	1901	38,160	7 694	1,845	(7)	7,544	(7)	16,520	13,174	83
Netherlands.....	1909	2,710	85	103	137	132	408	549	1,296	.....
Norway.....	1910	2,183	20	26	74	81	231	316	1,337	98
Russia (European) ⁸	1897	207,368	1 12,058	(1)	1 17,617	(1)	36,229	49,103	92,251	110
Scotland.....	1911	3,317	44	86	115	135	629	906	1,402	.....
Serbia.....	1900	2,345	26	65	76	94	416	562	1,106	.....
Sweden.....	1900	3,413	18	53	116	134	644	809	1,639	.....
Switzerland.....	1895-96	2,107	34	46	57	66	321	520	1,053	10
ASIA.										
Ceylon.....	1901	3,747	289	344	316	423	1,274	796	305	.....
India.....	1911	443,653	11,989	20,243	21,315	20,240	101,065	123,907	142,271	2,023
Philippine Islands ⁹	1903	15,811	10 1,432	(10)	10 1,012	10 2,197	10 3,095	10 3,829	10 3,646	.....
Russia (Asiatic) ¹¹	1897	40,532	1 2,365	(1)	1 3,748	(1)	7,353	9,066	17,962	38
AFRICA.										
Union of South Africa.....	1911	6,550	73	124	176	210	940	1,297	3,728	2
Cape of Good Hope.....	1911	3,082	26	62	100	125	468	633	1,667	1
Natal.....	1911	1,036	14	17	23	21	123	184	654	.....
Orange Free State.....	1911	516	7	9	15	17	73	87	308	.....
Transvaal.....	1911	1,916	26	36	38	47	276	393	1,099	1
AUSTRALASIA.										
Commonwealth of Australia ¹²	1911	3,142	26	55	87	108	450	778	1,608	30
New South Wales.....	1911	1,011	8	18	24	34	133	245	540	9
Queensland.....	1911	383	4	11	21	24	69	86	166	2
South Australia.....	1911	358	1	11	18	10	49	71	190	8
Tasmania.....	1911	146	.....	1	8	5	29	32	68	3
Victoria.....	1911	1,102	12	9	9	31	142	307	584	8
Western Australia.....	1911	142	1	5	7	4	28	37	60	.....
New Zealand ¹³	1911	482	5	11	9	23	69	97	266	2
		PER CENT OF TOTAL. ¹⁴								
AMERICA.										
Canada.....	1911	100.0	1 4.6	(1)	1 8.4	(1)	16.7	21.6	48.6	.....
United States:										
Continental United States.....	1910	100.0	1.0	2.2	3.5	3.9	16.3	23.7	49.4	.....
Hawaii.....	1910	100.0	2.2	0.6	1.1	3.3	25.6	40.0	27.2	.....
Porto Rico.....	1910	100.0	1.1	2.4	2.9	3.4	12.2	21.5	56.6	.....
EUROPE.										
Bulgaria.....	1905	100.0	1.2	1.8	2.9	3.6	12.6	17.9	60.0	.....
Denmark ²	1911	100.0	2.6	3.9	6.4	4.9	16.4	22.3	43.5	.....
England and Wales.....	1911	100.0	1.8	2.3	2.9	3.4	3 23.6	3 28.6	3 37.4	.....
Finland.....	1900	100.0	0.4	1.2	2.8	3.5	15.2	25.4	51.5	.....
France.....	1901	100.0	4 3.0	(4)	4 5.7	(4)	11.8	22.0	57.5	.....
Germany.....	1900	100.0	1.9	2.9	3.9	4.0	17.3	25.6	44.4	.....
Prussia.....	1910	100.0	1.9	3.0	4.2	4.5	17.6	25.8	42.9	.....
Saxony.....	1910	100.0	1.5	6 7.9	(6)	6 15.0	6 25.2	6 31.1	6 19.2	.....
Hungary.....	1900	100.0	6 0.8	6 5.6	(6)	6 4.0	6 16.2	6 24.7	6 48.7	.....
Ireland.....	1911	100.0	0.4	0.6	1.1	1.8	11.0	19.4	65.7	.....
Italy.....	1901	100.0	7 1.6	7 4.8	(7)	7 15.6	(7)	7 43.4	7 34.6	.....
Netherlands.....	1909	100.0	3.1	3.8	5.1	4.9	15.1	20.3	47.8	.....
Norway.....	1910	100.0	1.0	1.2	3.5	3.9	11.1	15.2	64.1	.....
Russia (European) ⁸	1897	100.0	1 5.8	(1)	1 8.5	(1)	17.5	23.7	44.5	.....
Scotland.....	1911	100.0	1.3	2.6	3.5	4.1	19.0	27.3	42.3	.....
Serbia.....	1900	100.0	1.1	2.8	3.2	4.0	17.7	24.0	47.2	.....
Sweden.....	1900	100.0	0.5	1.6	3.4	3.9	18.9	23.7	48.0	.....
Switzerland.....	1895-96	100.0	1.6	2.2	2.7	3.1	15.3	24.8	50.2	.....

1 Figures given are for age groups "under 10" and "10 to 19," respectively.
 2 Exclusive of Faroe Islands.
 3 Figures given are for age groups "20 to 44," "45 to 64," and "65 or over," respectively.
 4 Figures given are approximately for age groups "under 10" and "10 to 19," respectively.
 5 Figures given are approximately for age groups "5 to 14," "15 to 29," "30 to 49," "50 to 69," and "70 or over," respectively.
 6 Figures given are for age groups "under 6" and "6 to 14," respectively.
 7 Figures given are approximately for age groups "under 6," "6 to 14," "15 to 39," "40 to 69," and "70 or over," respectively.
 8 Including Poland, but exclusive of Finland.
 9 Civilized population.
 10 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.
 11 Caucasus, Siberia, and Central Asia.
 12 Exclusive of full-blooded aboriginals. Includes Northern Territory and Federal Capital Territory.
 13 Exclusive of Maoris and of population of annexed Pacific islands.
 14 In calculating these percentages, persons whose age was not reported have been excluded from the total.

TABLE 11.—BLIND POPULATION OF THE UNITED STATES AND OF FOREIGN COUNTRIES, CLASSIFIED ACCORDING TO AGE, WITH NUMBER PER 100,000 OF THE GENERAL POPULATION OF THE SAME AGE—Continued.

COUNTRY.	Year.	BLIND POPULATION.							
		Total.	Under 5 years of age.	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.
		PER CENT OF TOTAL ¹ —continued.							
ASIA.									
Ceylon.....	1901	100.0	7.7	9.2	8.4	11.3	34.0	21.2	8.1
India.....	1911	100.0	2.7	4.6	4.8	4.6	23.0	28.1	32.2
Philippine Islands ²	1903	100.0	³ 9.1	⁽³⁾	³ 6.4	³ 13.9	³ 23.4	³ 24.2	³ 23.1
Russia (Asiatic) ⁴	1897	100.0	⁵ 5.8	⁽⁵⁾	⁵ 9.3	⁽⁵⁾	18.2	22.4	44.4
AFRICA.									
Union of South Africa.....	1911	100.0	1.1	1.9	2.7	3.2	14.4	19.8	56.9
Cape of Good Hope.....	1911	100.0	0.8	2.0	3.2	4.1	15.2	20.5	54.1
Natal.....	1911	100.0	1.4	1.6	2.2	2.0	11.9	17.8	63.1
Orange Free State.....	1911	100.0	1.4	1.7	2.9	3.3	14.1	16.9	59.7
Transvaal.....	1911	100.0	1.4	1.9	2.0	2.5	14.4	20.5	57.4
AUSTRALASIA.									
Commonwealth of Australia ⁶	1911	100.0	0.8	1.8	2.8	3.5	14.5	25.0	51.7
New South Wales.....	1911	100.0	0.8	1.8	2.4	3.4	13.3	24.5	53.9
Queensland.....	1911	100.0	1.0	2.9	5.5	6.3	18.1	22.6	43.6
South Australia.....	1911	100.0	0.3	3.1	5.1	2.9	14.0	20.3	54.3
Tasmania.....	1911	100.0	.....	0.7	5.6	3.5	20.3	22.4	47.6
Victoria.....	1911	100.0	1.1	0.8	0.8	2.8	13.0	28.1	53.4
Western Australia.....	1911	100.0	0.7	3.5	4.9	2.8	19.7	26.1	42.3
New Zealand ⁷	1911	100.0	1.0	2.3	1.9	4.8	14.4	20.2	55.4
		NUMBER PER 100,000 GENERAL POPULATION OF SAME AGE.							
AMERICA.									
Canada.....	1911	44.9	⁸ 9.0	⁽⁸⁾	⁸ 19.7	⁽⁸⁾	22.6	57.2	306.3
United States:									
Continental United States.....	1910	62.3	5.2	12.8	21.9	24.3	30.5	82.6	454.2
Hawaii.....	1910	93.8	16.6	5.2	14.8	44.0	56.3	213.7	798.0
Porto Rico.....	1910	143.4	9.7	25.1	32.0	47.5	57.8	242.9	2,021.2
EUROPE.									
Bulgaria.....	1905	132.4	11.3	18.0	32.7	45.6	63.0	155.3	929.3
Denmark ⁸	1911	52.7	11.4	18.5	32.3	27.9	29.9	63.8	233.4
England and Wales.....	1911	73.0	12.1	16.5	22.1	27.1	⁹ 44.5	⁹ 129.2	⁹ 523.8
Finland.....	1900	119.0	3.7	12.7	31.8	42.9	62.6	162.0	746.9
France.....	1901	70.6	¹⁰ 11.8	⁽¹⁰⁾	¹⁰ 23.8	⁽¹⁰⁾	27.4	68.5	325.1
Germany.....	1900	60.9	8.9	15.5	23.0	25.6	34.9	87.3	345.8
Prussia.....	1910	52.2	8.2	13.7	20.4	23.7	30.6	75.0	293.3
Saxony.....	1910	47.0	6.5	¹¹ 17.3	⁽¹¹⁾	¹¹ 26.1	¹¹ 46.9	¹¹ 117.9	¹¹ 376.8
Hungary.....	1900	100.6	¹² 5.3	¹² 28.8	⁽¹²⁾	39.7	58.4	131.3	645.4
Ireland.....	1911	98.2	3.7	6.2	11.0	18.7	36.5	105.9	491.0
Italy.....	1901	117.5	¹³ 12.0	¹³ 29.7	⁽¹³⁾	¹³ 50.2	⁽¹³⁾	¹³ 198.2	¹³ 1,162.1
Netherlands.....	1909	46.3	11.5	15.4	22.2	23.7	23.8	52.7	246.5
Norway.....	1910	92.6	7.1	9.3	27.5	35.1	37.9	75.4	514.2
Russia (European) ¹⁴	1897	201.6	⁵ 42.8	⁽⁵⁾	⁵ 80.3	⁽⁵⁾	124.0	299.7	1,296.7
Scotland.....	1911	69.7	8.3	16.7	23.5	29.2	42.3	101.9	362.2
Serbia.....	1900	94.1	6.4	19.7	24.7	32.0	60.2	159.0	1,009.6
Sweden.....	1900	66.4	3.1	9.7	21.9	27.6	46.2	82.6	267.8
Switzerland.....	1895-96 ¹⁵	72.2	10.5	14.9	18.6	24.4	38.5	86.8	383.5
ASIA.									
Ceylon.....	1901	104.9	45.2	68.3	87.0	109.6	110.5	187.5	316.2
India ¹⁶	1911	141.6	27.8	46.8	62.9	77.3	101.7	247.8	876.0
Philippine Islands ²	1903	226.3	³ 71.1	⁽³⁾	³ 134.7	³ 175.1	³ 193.8	³ 458.9	³ 1,606.8
Russia (Asiatic) ⁴	1897	177.8	⁵ 38.2	⁽⁵⁾	⁵ 82.9	⁽⁵⁾	105.9	248.8	1,208.0
AFRICA.									
Union of South Africa.....	1911	109.7	8.2	15.9	25.3	34.5	49.1	164.1	1,293.1
Cape of Good Hope.....	1911	120.2	6.3	17.6	31.5	47.6	63.3	182.2	1,256.9
Natal.....	1911	86.8	8.9	10.3	14.0	16.9	34.4	113.5	1,019.5
Orange Free State.....	1911	97.7	8.2	13.1	25.3	29.1	44.8	134.0	1,107.2
Transvaal.....	1911	113.6	10.8	18.7	24.5	28.9	42.1	182.0	1,725.2
AUSTRALASIA.									
Commonwealth of Australia ⁶	1911	70.5	4.9	12.1	20.3	24.1	30.9	93.4	562.3
New South Wales.....	1911	61.4	4.0	10.7	15.3	20.7	24.2	82.7	524.9
Queensland.....	1911	63.2	5.4	17.3	33.6	37.8	34.9	80.3	474.8
South Australia.....	1911	87.6	2.1	27.3	46.2	23.3	36.6	95.5	664.1
Tasmania.....	1911	76.4	.....	4.5	40.5	25.4	49.9	94.7	572.2
Victoria.....	1911	83.8	8.4	6.9	7.1	22.9	34.3	116.4	608.5
Western Australia.....	1911	50.3	2.9	17.1	29.9	17.7	27.2	66.1	533.7
New Zealand ⁷	1911	47.8	4.2	10.4	9.8	26.0	19.0	57.2	376.0

¹ In calculating these percentages, persons whose age was not reported have been excluded from the total.

² Civilized population.

³ 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.

⁴ Caucasus, Siberia, and Central Asia.

⁵ Figures given are for age groups "under 10" and "10 to 19," respectively.

⁶ Exclusive of full-blooded aborigines. Includes Northern Territory and Federal Capital Territory.

⁷ Exclusive of Maoris and of population of annexed Pacific islands.

⁸ Exclusive of Faroe Islands.

⁹ Figures given are for age groups "20 to 44," "45 to 64," and "65 or over," respectively.

¹⁰ Figures given are approximately for age groups "under 10" and "10 to 19," respectively.

¹¹ Figures given are approximately for age groups "5 to 14," "15 to 29," "30 to 49," "50 to 69," and "70 or over," respectively.

¹² Figures given are for age groups "under 6" and "6 to 14," respectively.

¹³ Figures given are approximately for age groups "under 6," "6 to 14," "15 to 39," "40 to 69," and "70 or over," respectively.

¹⁴ Including Poland, but exclusive of Finland.

¹⁵ Figures for general population used in computing ratios relate to 1888.

¹⁶ In computing the ratios for the several age groups persons for whom no returns as to infirmities were secured were not deducted from the total population, as in computing the other ratios given for India, because their age distribution is not shown in the census report.

THE BLIND IN THE UNITED STATES.

The following table shows, for the latest year for which figures are available, the median age of the blind population in those countries for which figures are given in Table 11.

COUNTRY.	Year.	Median age of blind population. ¹	COUNTRY.	Year.	Median age of blind population. ¹
AMERICA.			ASIA.		
Canada.....	1911	58.7	Ceylon.....	1901	27.1
United States:			India.....	1911	47.1
Continental United States.....	1910	59.6	Philippine Islands ⁴	1903	42.4
Hawaii.....	1910	49.0	Russia (Asiatic) ⁵	1897	55.3
Porto Rico.....	1910	63.2	AFRICA.		
EUROPE.			AFRICA.		
Bulgaria.....	1905	66.1	Union of South Africa.....	1911	63.6
Denmark ²	1911	55.1	Cape of Good Hope.....	1911	62.3
England and Wales.....	1911	56.8	Natal.....	1911	68.2
Finland.....	1900	60.6	Orange Free State.....	1911	65.7
France.....	1901	63.4	Transvaal.....	1911	63.1
Germany.....	1900	56.4	AUSTRALASIA.		
Prussia.....	1910	54.9	AUSTRALASIA.		
Saxony.....	1910	50.2	Commonwealth of Australia ⁶	1911	61.2
Hungary.....	1900	59.1	New South Wales.....	1911	62.4
Ireland.....	1911	69.4	Queensland.....	1911	55.8
Italy.....	1901	59.4	South Australia.....	1911	64.4
Netherlands.....	1909	58.3	Tasmania.....	1911	57.5
Norway.....	1910	71.5	Victoria.....	1911	62.5
Russia (European) ³	1897	55.7	Western Australia.....	1911	54.1
Scotland.....	1911	54.3	New Zealand ⁷	1911	65.4
Serbia.....	1900	58.7			
Sweden.....	1900	58.6			
Switzerland.....	1895-96	60.1			

¹ Based upon the population whose age was reported.

² Exclusive of Faroe Islands.

³ Including Poland, but exclusive of Finland.

⁴ Civilized population.

⁵ Caucasus, Siberia, and Central Asia.

⁶ Exclusive of full-blooded aborigines. Includes Northern Territory and Federal Capital Territory.

⁷ Exclusive of Maoris and of population of annexed Pacific islands.

General Table 3 (p. 43) shows the age distribution of the blind population of the different geographic divisions and states. Table 13 shows, for each divi-

sion, the per cent distribution, by age, of the blind population, a somewhat broader grouping being employed than that used in General Table 3.

AGE GROUP.	PER CENT DISTRIBUTION OF BLIND POPULATION: 1910. ¹									
	United States.	New England division.	Middle 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 10 years.....	3.1	3.3	3.2	2.7	2.5	3.9	3.5	3.5	3.2	1.9
Under 5 years.....	1.0	1.1	1.1	0.8	0.8	1.1	1.0	1.0	1.1	0.5
5 to 9 years.....	2.2	2.2	2.2	1.8	1.8	2.8	2.5	2.5	2.1	1.4
10 to 19 years.....	7.3	6.4	5.8	6.3	5.5	10.1	9.0	9.2	7.5	7.0
10 to 14 years.....	3.5	3.3	2.9	2.9	2.6	5.0	4.1	4.2	3.8	2.7
15 to 19 years.....	3.9	3.2	2.9	3.4	2.9	5.0	5.0	5.0	3.7	4.3
20 to 29 years.....	7.9	5.9	6.5	6.0	7.3	9.6	9.6	10.0	8.3	6.7
30 to 39 years.....	8.4	6.8	7.9	8.1	8.5	9.2	9.3	9.4	8.4	7.3
40 to 49 years.....	10.7	9.8	11.7	10.7	11.0	10.0	10.1	10.4	11.0	12.8
50 to 59 years.....	13.0	12.5	13.9	13.2	13.3	12.8	12.1	12.8	12.7	13.2
60 to 69 years.....	16.8	17.7	18.5	17.8	16.3	14.7	15.5	15.9	16.7	17.6
70 to 79 years.....	17.9	21.2	18.5	19.1	19.0	15.6	16.2	16.0	17.7	17.9
80 years or over.....	14.8	16.4	13.9	15.3	16.4	14.1	14.6	12.7	14.7	15.6

¹ Based upon the population whose age was reported.

The differences between the respective divisions in regard to the age distribution of the blind population are determined largely by the differences in the corresponding distribution of the total population. Thus the proportion of blind children is largest in the three southern divisions, which are also the divisions showing the largest proportion of children in the general population. Similarly, the proportion of old people in the blind population is highest in New England, which is the division having the highest proportion of old people in its general population. Other causes, however, enter in, among which may be mentioned differences in the relative importance of the various race and nativity classes, which differ more or less in respect to prevalence of blindness, and the exist-

ence of trachoma, a cause of blindness which occurs at all ages, as endemic in certain sections of the country.

In five of the nine divisions more than half of the blind population were 60 years of age or over in 1910, the exceptions being the three southern and the Mountain divisions. The highest percentage (55.3) occurred in the New England division, and the lowest (44.5) in the South Atlantic division. In four divisions the proportion under 20 years of age exceeded 10 per cent, these being the same divisions as those in which the proportion 60 years of age or over fell below 50 per cent; the percentage under 20 was highest (13.9) in the South Atlantic division, while it was lowest (8) in the West North Central.

Table 14 shows, for each geographic division, the number of blind persons in 1910 per 100,000 of the general population of the same age.

The importance of trachoma as a cause of blindness is brought out clearly by the fact that for 12 of the 19 age groups into which the population whose age was reported is divided, including all the groups comprising persons from 20 to 59 years of age, the highest ratio of blind to total population is shown for the East South Central division, in certain areas of which trachoma is widely prevalent, while for five groups the highest ratio is shown for the Mountain division, where trachoma is endemic to a considerable extent among the Indians on the reservations. In general, the number of blind persons per 100,000 of the general population of the same age tends to increase with each succeeding age group. In the Pacific division, however, the ratio, after increasing regularly up to the age group "15 to 19 years," decreases in the

next two age groups, after which it begins once more to increase, the regularity of the increase in this case being unbroken until the final age group is reached. The explanation for this variation from the general rule is probably to be found in the large Chinese and Japanese population of this division, from which only an insignificant number of blind persons were reported, together with the relatively large number of recent immigrants, these two elements of the population being concentrated mainly in the early and middle years of adult life, and thereby counteracting temporarily the normal tendency for the relative frequency of blindness to increase with the successive age groups. Somewhat similar, though less pronounced, variations from the rule occur in the New England, Middle Atlantic, and Mountain divisions, probably by reason of the large number of young immigrants, who constitute a selected class so far as physical defects are concerned, in the population of these divisions.

AGE GROUP.	BLIND POPULATION PER 100,000 GENERAL POPULATION OF SAME AGE: 1910.									
	United States.	New England division.	Middle 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.....	62.3	62.4	51.8	64.3	57.4	67.9	83.5	64.0	67.9	49.3
Under 5 years.....	5.2	7.0	5.3	5.1	3.9	5.5	6.2	4.6	6.2	2.8
Under 1 year.....	3.2	2.9	3.7	2.8	0.7	2.9	5.4	3.5	6.3	1.3
1 to 4 years.....	5.7	8.1	5.8	5.7	4.7	6.2	6.4	4.9	6.2	3.1
5 to 9 years.....	12.8	15.7	11.8	12.1	9.5	15.0	16.3	12.0	13.9	8.7
10 to 14 years.....	21.9	23.8	16.9	19.9	14.8	29.7	29.4	23.3	28.0	17.4
15 to 19 years.....	24.3	22.3	16.1	22.3	16.3	32.2	38.3	29.4	28.1	24.7
20 to 24 years.....	24.9	21.5	16.4	22.6	19.9	32.8	43.7	32.0	27.4	17.3
25 to 29 years.....	27.5	18.4	18.2	25.3	25.3	40.3	45.9	38.5	27.3	14.5
30 to 34 years.....	32.0	24.7	22.0	32.7	32.7	43.0	58.9	40.9	31.4	19.4
35 to 39 years.....	39.6	29.3	30.0	38.0	37.2	54.3	62.8	51.6	39.5	21.6
40 to 44 years.....	53.2	42.7	42.1	51.8	51.6	67.2	87.5	61.7	56.1	39.1
45 to 49 years.....	74.4	57.5	63.4	68.7	69.3	91.9	111.7	100.2	78.4	58.7
50 to 54 years.....	96.1	81.5	82.3	91.9	88.8	115.2	140.8	118.0	97.3	69.1
55 to 59 years.....	132.6	105.1	112.7	123.8	123.2	163.7	187.9	171.2	166.7	93.1
60 to 64 years.....	197.7	180.0	176.9	193.2	167.3	209.6	271.7	257.2	275.4	142.4
65 to 69 years.....	303.8	238.7	260.9	289.2	270.2	331.7	455.1	406.0	418.0	243.8
70 to 74 years.....	458.9	399.8	381.9	406.4	397.4	543.3	699.0	729.8	779.6	323.0
75 to 79 years.....	765.5	625.9	639.9	722.9	726.9	888.3	1,172.8	1,050.1	1,132.9	580.4
80 to 84 years.....	1,283.3	887.0	1,062.1	1,192.5	1,243.6	1,542.1	2,010.1	1,797.0	2,262.9	1,086.6
85 years or over.....	2,574.8	1,978.8	1,986.2	2,226.1	2,516.9	3,189.8	3,828.3	3,558.3	4,686.4	2,311.5

Table 15 shows the per cent distribution, by broad age groups, of the male and female blind population in 1910, in comparison with that of the general population. The absolute numbers upon which the percentages for the blind population are based are given in General Table 3 (p. 43).

AGE GROUP.	PER CENT DISTRIBUTION OF POPULATION OF THE UNITED STATES: 1910. ¹			
	Total.		Blind.	
	Male.	Female.	Male.	Female.
Total.....	100.0	100.0	100.0	100.0
Under 10 years.....	21.8	22.6	3.0	3.3
Under 5 years.....	11.4	11.8	0.9	1.0
5 to 9 years.....	10.4	10.8	2.1	2.3
10 to 19 years.....	19.3	20.3	7.2	7.6
10 to 14 years.....	9.7	10.1	3.4	3.6
15 to 19 years.....	9.6	10.2	3.8	4.0
20 to 29 years.....	18.7	18.9	8.1	7.6
30 to 39 years.....	14.9	14.2	9.3	7.3
40 to 49 years.....	10.9	10.2	12.1	8.9
50 to 59 years.....	7.6	6.9	14.0	11.7
60 to 69 years.....	4.3	4.3	17.0	16.5
70 to 79 years.....	1.9	2.0	17.1	19.0
80 years or over.....	0.5	0.6	12.2	18.1

¹ Based upon the population whose age was reported.

In view of the fact that blindness among the male population occurs frequently as a result of industrial accidents, which are unimportant as a cause of blindness among the female population, the male blind population would naturally be expected to show a much less marked concentration in the later age groups than the female population, and the table shows that this is in fact the case. Of the total male blind population reported in 1910 only 46.3 per cent were 60 years of age or over, while in the case of the female blind population the percentage was 53.6. On the other hand, the blind males include a much larger number, relatively, of persons in the early or middle years of adult life than do the blind females, 43.6 per cent, or more than two-fifths, of the blind males being from 20 to 59 years of age, as compared with only 35.5 per cent, or somewhat more than one-third, of the female blind. The proportion of young persons under 20 years of age shows comparatively little difference for the two sexes, the percentage being 10.2 for males and 10.9 for females. As a result of these differences in age distribution, the median age of the female blind

population is 5 years greater than that of the male blind population, the former being 62.3 years and the latter 57.3 years.

Table 16 shows, by 5-year age groups, the number of blind persons per 100,000 of the general population of the same age and sex, and also the number of males per 100 females in each age group for both the general and the blind population.

AGE GROUP.	BLIND POPULATION OF THE UNITED STATES: 1910.				Males per 100 females in the general population.
	Number per 100,000 general population of same age and sex.		Excess of male ratio over female ratio. ¹	Males per 100 females.	
	Male.	Female.			
Total	68.5	55.6	12.9	130.7	106.0
Under 5 years	5.5	4.8	0.7	117.8	102.5
Under 1 year	2.8	3.5	-0.7	(2)	102.7
1 to 4 years	6.2	5.2	1.0	123.7	102.4
5 to 9 years	13.6	11.9	1.7	116.7	101.8
10 to 14 years	24.1	19.7	4.4	124.6	102.1
15 to 19 years	26.9	21.6	5.3	124.0	99.8
20 to 24 years	27.7	22.0	5.7	128.7	102.3
25 to 29 years	31.9	22.7	9.2	151.9	107.8
30 to 34 years	38.7	26.4	12.3	161.8	110.3
35 to 39 years	47.6	30.6	17.0	173.2	111.2
40 to 44 years	64.1	40.8	23.3	176.9	112.6
45 to 49 years	89.5	57.3	32.2	177.8	113.8
50 to 54 years	108.9	81.0	27.9	158.5	117.8
55 to 59 years	150.7	111.8	38.9	154.5	114.6
60 to 64 years	215.6	178.1	37.5	132.8	109.7
65 to 69 years	340.3	265.1	75.2	136.0	105.9
70 to 74 years	491.1	426.2	64.9	117.2	101.7
75 to 79 years	834.6	697.3	137.3	118.0	98.6
80 to 84 years	1,324.3	1,245.8	78.5	97.3	91.5
85 years or over	2,545.4	2,598.9	-53.5	80.2	81.9

¹ A minus sign (-) indicates an excess of the female ratio over the male ratio.
² Ratio not shown where number of females is less than 100.

In practically every age group the ratio of blind to total population for the males exceeds that for the females, the exceptions, the groups comprising infants under 1 year of age and persons 85 years of age or over, being unimportant by reason of the uncertain accuracy of the figures in the first instance and the insignificant amount of the difference, when taken in conjunction with the magnitude of the ratios, in the second. So far as the years of adult life are concerned, the greater male ratios of course reflect the fact that the risk of blindness from industrial accident is confined mainly to the male sex; but even in childhood it is probable that the risk of blindness from injury is somewhat greater for males than for females, by reason of the more active and adventurous character of their amusements and the fact that child labor is more frequent in the case of boys than in that of girls.

As is the case when the blind population is considered as a whole, so when the two sexes are considered separately, the ratio of blind to total population increases with each succeeding age group. The rate of increase, however, is by no means uniform for the two sexes. During the earlier years of life, up to the age of 25, the increase, while slightly more rapid for males, is comparatively slow for both sexes, the excess of the male over the female ratio in the age group "20 to 24

years" being only 5.7 per 100,000. Beginning with the age of 25, however, the special risk of blindness from industrial accident which exists in the case of the male population begins to operate strongly, and the male ratio commences to increase rapidly; the female ratio, on the other hand, continues to increase at a relatively slow rate until the age of 40, after which, by reason of the increased incidence of blindness from affections of the eye more commonly occurring in later life, the rate of increase is considerably accelerated, although still somewhat less than that among the males. During the later years of life, beginning with the age of 70, when males engaged in occupations involving a special risk of blindness have ordinarily retired from active employment, the female ratio shows the more rapid increase, until in the final age group the ratios for the two sexes are approximately the same.

The excess of males over females which exists in the blind population as a whole is found also in every age group for which the sex ratio is shown except the two comprising persons of 80 or over. For the age groups comprising persons under 25 years of age the excess is on the whole fairly uniform; after that age, however, it begins to increase, until the ratio reaches its maximum (177.8 males to each 100 females) in the age group "45 to 49 years." After 50 years of age the ratio shows a general tendency to decrease, the last two age groups, as already noted, showing an excess of females, mainly by reason of the fact that there is an excess of females in the general population in these two age groups.

Table 17 shows, by 5-year age groups, for the different geographic divisions, the number of blind persons per 100,000 of the general population of the same age and sex.

As in the United States as a whole, so in each geographic division, the difference between the male and female ratios of blind to total population is, in general, greatest in the middle age groups, being comparatively small in childhood and infancy and tending to disappear in the latest age groups. The differences existing between the respective divisions in regard to the increase in the ratio when the blind population is considered as a whole also appear, as a rule, when the two sexes are considered separately. It should be noted, however, that in the divisions where the presence of a considerable and relatively young foreign-born element in the population interrupts the regularity of the increase in the ratios, a phenomenon to which attention has already been called (p. 21), the interruption is usually more pronounced in the case of females than in that of males. Probably this is because the normally more rapid increase in the male ratio resulting from the greater risk of blindness from injury tends to counteract in whole or in part the retarding influence which the presence of an element which from the physical standpoint constitutes a selected class would ordinarily exercise upon the ratio.

Table 17

AGE GROUP.	BLIND POPULATION PER 100,000 GENERAL POPULATION OF SAME AGE AND SEX: 1910.									
	United States.		New England division.		Middle Atlantic division.		East North Central division.		West North Central division.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
Total	68.5	55.6	68.2	56.7	57.8	45.5	71.2	56.9	63.8	50.3
Under 5 years	5.5	4.8	6.8	7.2	5.3	5.3	4.4	5.7	4.4	3.4
Under 1 year	2.8	3.5	2.9	2.9	3.2	4.2	0.5	5.1	0.7	0.8
1 to 4 years	6.2	5.2	7.9	8.4	5.9	5.6	5.5	5.9	5.3	4.1
5 to 9 years	13.6	11.9	19.5	11.8	13.0	10.6	12.1	12.2	10.3	8.7
10 to 14 years	24.1	19.7	25.0	22.6	18.9	14.8	22.8	17.0	16.2	13.3
15 to 19 years	26.9	21.6	22.4	22.1	17.9	14.4	24.4	20.2	17.7	14.9
20 to 24 years	27.7	22.0	26.1	17.0	17.4	15.4	24.7	20.4	21.0	18.6
25 to 29 years	31.9	22.7	20.9	15.8	23.3	12.7	30.1	20.2	26.3	24.2
30 to 34 years	38.7	26.4	31.7	17.5	26.8	16.7	39.1	25.7	36.3	28.6
35 to 39 years	47.6	30.6	35.1	23.3	35.0	24.5	45.3	29.9	44.5	28.7
40 to 44 years	64.1	40.8	49.6	35.7	53.8	29.1	61.6	40.8	60.5	41.3
45 to 49 years	89.5	57.3	72.6	42.0	81.8	43.4	84.9	50.8	77.3	59.6
50 to 54 years	108.9	81.0	97.2	65.6	100.5	63.0	102.5	79.8	98.0	77.1
55 to 59 years	150.7	111.8	144.9	66.1	143.3	81.2	140.7	105.0	143.5	98.3
60 to 64 years	215.6	178.1	212.0	150.0	203.6	151.3	221.7	162.5	170.6	152.8
65 to 69 years	340.3	265.1	269.0	211.5	319.0	223.7	337.7	237.5	303.6	231.1
70 to 74 years	491.1	426.2	423.7	379.1	430.0	338.9	440.6	370.5	424.9	365.6
75 to 79 years	834.6	697.3	741.1	531.6	707.8	533.3	764.0	681.0	790.3	654.1
80 to 84 years	1,324.3	1,245.8	897.7	878.9	1,113.9	1,021.6	1,219.8	1,165.8	1,310.7	1,171.5
85 years or over	2,545.4	2,598.9	2,047.2	1,933.5	2,038.2	1,949.7	2,163.5	2,282.0	2,608.8	2,429.1

AGE GROUP.	BLIND POPULATION PER 100,000 GENERAL POPULATION OF SAME AGE AND SEX: 1910.									
	South Atlantic division.		East South Central division.		West South Central division.		Mountain division.		Pacific division.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
Total	73.5	62.2	90.2	76.6	68.7	58.9	74.8	58.9	58.7	37.1
Under 5 years	6.3	4.6	8.5	3.8	5.4	3.8	4.5	7.9	2.7	2.8
Under 1 year	2.3	3.5	9.1	1.7	4.6	2.4	.....	12.8	.....	2.7
1 to 4 years	7.4	4.9	8.3	4.4	5.6	4.1	5.7	6.7	3.4	2.8
5 to 9 years	16.2	13.9	15.7	17.0	12.3	11.7	20.2	7.4	8.9	8.5
10 to 14 years	33.5	25.8	30.4	28.4	23.9	22.8	30.3	25.6	21.4	13.2
15 to 19 years	35.9	28.6	43.4	33.3	33.9	24.8	32.1	23.8	26.9	22.3
20 to 24 years	40.0	26.1	52.6	35.5	34.3	29.7	25.1	30.5	18.9	15.3
25 to 29 years	48.5	32.3	56.5	35.8	42.9	33.9	27.1	27.7	17.5	10.0
30 to 34 years	51.0	35.0	69.1	48.7	49.7	31.3	35.8	25.0	21.9	15.7
35 to 39 years	66.9	41.1	79.4	45.6	62.7	38.8	48.9	26.0	26.0	15.4
40 to 44 years	85.7	47.9	105.2	69.4	73.2	48.3	60.6	49.2	46.4	28.3
45 to 49 years	109.4	74.1	129.3	92.6	108.0	90.0	95.0	52.4	74.0	35.9
50 to 54 years	129.6	98.5	150.8	128.7	124.7	109.1	94.7	101.6	90.2	36.9
55 to 59 years	174.6	151.2	191.3	183.9	159.3	186.9	189.8	130.2	101.9	80.2
60 to 64 years	230.2	187.0	246.0	300.6	250.0	266.6	263.1	204.1	177.0	91.6
65 to 69 years	345.4	317.5	483.9	423.7	399.6	413.7	412.1	426.4	309.6	155.6
70 to 74 years	556.8	530.3	701.3	696.7	763.0	692.3	775.9	784.7	374.7	253.0
75 to 79 years	935.5	845.1	1,246.0	1,096.8	1,137.9	952.7	1,285.2	923.0	637.6	523.9
80 to 84 years	1,461.4	1,609.2	2,063.4	1,961.3	1,778.5	1,815.0	2,306.6	2,098.5	1,239.7	880.6
85 years or over	2,773.2	3,506.3	3,775.6	3,872.5	3,267.4	3,800.9	5,351.2	3,980.1	2,302.9	2,321.8

RACE AND NATIVITY.

Table 18 shows the distribution of the blind population by race and nativity in 1910, in comparison with that of the total population, and also the ratio of blind to total population for each race and nativity class.

Both the colored and the foreign-born whites form a somewhat larger percentage of the blind population than of the general population, while the native whites, on the other hand, represent less than two-thirds (65.7 per cent) of the blind population, as compared with nearly three-fourths (74.4 per cent) of the general population. These differences, of course, result from differences in the relative frequency of blindness in the several classes, as indicated by the last column of the table, which shows the number of blind per 100,000 of the general population of the same race and nativity. The remarkably high ratio shown for the Indians is due mainly to the prevalence of trachoma among the Indians on the reservations of the

far West, while the high ratio for the negroes may perhaps be explained to some extent by the fact that the negro population is largely illiterate and resident in rural districts, where medical facilities are poor, so that eye diseases having blindness as a possible consequence are probably allowed to run their course unmolested to a much greater extent relatively in this class of the population than among the whites. In the case of the foreign-born whites, the high proportion of adults who have arrived at the age when the incidence of blindness is greatest, and also the considerable excess of males, are the factors chiefly responsible for the high ratio shown for this class as compared with the native whites.

The blind population included under "Chinese, Japanese, and all other" comprises 24 Chinese, 1 Japanese, and 9 of miscellaneous races. The ratio of blind to total population among the Chinese alone was 33.6 per 100,000. The small number of blind persons enumerated among the Chinese and Japanese is probably due in large part to the fact that the members of these

racers in the United States are, as a rule, comparatively young, the proportion who have reached the ages when the incidence of blindness is greatest being relatively low, and also to the fact that they are mainly engaged in occupations having no particular hazard of blindness, although it also seems probable that the enumeration of the blind may be somewhat deficient for these two classes of the population.

Table 18

POPULATION OF THE UNITED STATES: 1910.

RACE AND NATIVITY.	Total.		Blind.		
	Number.	Per cent distribution.	Number.	Per cent distribution.	Number per 100,000 general population of same race and nativity.
Total.....	91,972,266	100.0	57,272	100.0	62.3
White.....	81,731,957	88.9	47,585	83.1	58.2
Native.....	68,386,412	74.4	37,646	65.7	55.0
Foreign-born.....	13,345,545	14.5	9,939	17.4	74.5
Colored.....	10,240,309	11.1	9,687	16.9	94.6
Negro.....	9,827,763	10.7	8,849	15.5	90.0
Other colored.....	412,546	0.4	838	1.5	203.1
Indian.....	265,083	0.3	804	1.4	302.6
Chinese, Japanese, and all other.....	146,863	0.2	34	0.1	23.2

As a matter of interest, Table 19 shows the distribution by race and nativity of the blind population as reported at each census from 1830 to 1910, together with the ratio of the reported blind to the total population of the same race and nativity at each census. In connection with this table, however, what has already been said regarding the incomparability of the figures for the different censuses should be borne in mind.

Table 19

BLIND POPULATION OF THE UNITED STATES.

YEAR.	Total number.				Number per 100,000 population of same race and nativity.				
	White.				White.				
	All classes.	Total.	Na-tive.	For- eign-born.	All classes.	Total.	Na-tive.	For- eign-born.	
1910...	57,272	47,585	37,646	9,939	62.3	58.2	55.0	74.5	94.6
1900...	64,763	56,535	45,841	10,694	85.2	84.6	81.0	104.7	89.6
1890...	50,568	43,351	34,205	9,146	80.8	78.7	74.4	100.3	92.0
1880...	48,928	41,278	33,051	8,227	97.7	95.1	89.7	125.4	113.3
1870...	20,320	16,966	13,758	3,208	52.7	50.5	49.0	58.4	67.5
1860...	12,658	10,729	8,959	1,770	40.3	39.9	39.2	43.2	42.7
1850...	9,794	7,978	7,186	792	42.2	40.8	41.5	35.3	49.9
1840...	6,932	5,030	(1)	(1)	40.6	35.4	(1)	(1)	66.2
1830...	5,444	3,974	(1)	(1)	42.3	37.7	(1)	(1)	63.1

¹ Not reported separately.

The fact that the reported colored blind population was larger in 1910 than in 1900, a gain which was accompanied by an increase in the ratio per 100,000 of the general population of the same races, while all other race and nativity classes show apparent de-

creases, tends to suggest that as far as this element is concerned the returns for 1910 were more complete than those for 1900, as it is extremely improbable that there was any such increase in the frequency of blindness among the colored as the figures would seem to indicate. It is probable, indeed, that a very large proportion of the 19,884 persons already referred to as having been ultimately excluded from the report for 1900 by reason of failure to return the personal schedule represented negroes and Indians too ignorant or illiterate to answer the questions on the schedule, the exclusion referred to affecting these classes to a greater extent than any other.¹ It is also probable that relatively more foreign-born whites than native whites were excluded for the same reason, a circumstance which would in some degree account for the much smaller decrease in number shown for the former class at the census of 1910; but another factor which would go far toward explaining this is the relatively large increase in the total foreign-born white population during the interval between 1900 and 1910, this increase amounting to 30.7 per cent, as compared with a corresponding increase of 20.8 per cent for the native white population.

General Table 1 (p. 41) shows, for each geographic division and state, the distribution of the blind population by race and nativity. Table 20 shows, for each geographic division, the ratio of blind to total population for each race and nativity class. In any consideration of this and similar tables, however, it should be borne in mind that by reason of the relatively small number involved in some cases, particularly in the case of the classes included under the heading of "All other," the magnitude of the ratios may to a certain extent be determined by more or less accidental factors.

Table 20

BLIND POPULATION PER 100,000 GENERAL POPULATION OF SAME RACE AND NATIVITY: 1910.

DIVISION.	All classes.	White.			Negro.	All other.
		Total.	Na-tive.	For- eign-born.		
United States.....	62.3	58.2	55.0	74.5	90.0	203.1
New England.....	62.4	62.0	60.2	66.7	99.5	68.2
Middle Atlantic.....	51.8	50.9	48.2	58.7	91.4	91.1
East North Central.....	64.3	62.9	57.6	88.6	133.6	221.1
West North Central.....	57.4	54.9	48.5	93.0	133.5	203.3
South Atlantic.....	67.9	59.8	59.3	70.9	83.7	120.3
East South Central.....	83.5	77.9	76.5	165.8	95.5	163.3
West South Central.....	64.0	57.6	53.8	126.2	83.1	128.5
Mountain.....	67.9	56.9	53.3	73.9	79.2	366.8
Pacific.....	49.3	45.9	40.6	65.4	113.0	133.6

Of the various factors which determine the ratios, that of age is unquestionably the most important. Thus the high ratios for the foreign-born whites in the East South Central and the East and West North

¹ In 1910, of the total colored blind population, 60.1 per cent failed to return the special schedule, as compared with 50.6 per cent of the foreign-born white and 45.6 per cent of the native white.

Central divisions result mainly from the fact that the foreign-born white population of these divisions is made up to a much greater extent of the earlier immigrants, who have reached the age when the incidence of blindness is greatest, than is the case elsewhere, the proportion of the total foreign-born white population in these divisions which was 65 years of age or over in 1910 being 17.9, 11.7, and 13.4 per cent, respectively, as compared with corresponding percentages of only 6.6 and 6.4 for the New England and Middle Atlantic divisions. Similarly, the high ratios for the negroes in the two North Central divisions reflect the fact that there is an exceptionally large proportion of old people in the negro population of these divisions, while a similar explanation accounts for the circumstance that New England shows the second highest ratio for the native whites, although ranking only sixth in this respect for all classes taken together. On the other hand, the high ratio for the native whites in the East South Central division results mainly from the prevalence of trachoma in certain sections of that division, and the high ratio for the foreign-born whites in the West South Central division is probably to be accounted for by the fact that in this division the foreign-born population consists largely of Mexicans, among whom blindness appears to be somewhat more prevalent generally than is the case with other nationalities.

When the respective geographic divisions are considered individually, they show much the same tendency in regard to the relative frequency of blindness among the several classes of the population as does the country as a whole. In general, the ratio of blind to total population is highest in that part of the population included under the heading of "All other;" the ratio for the negroes is higher than that for either class of the white population; and the ratio for the foreign-born whites exceeds that for the native whites. The manner in which these differences between the respective classes affect the distribution of the blind population is brought out by Table 21, which shows, for each geographic division, the percentage of the blind population represented by each race and nativity class, in comparison with the corresponding distribution of the total population.

In every division negroes represent a larger proportion of the blind than of the total population, the difference being especially marked in the three southern divisions, which contain approximately nine-tenths of the negro population of the United States. Foreign-born whites also contribute a larger proportion of the blind than of the total population in each division, the widest variation relatively occurring in the two North Central divisions, in which, as already noted, the proportion of older immigrants among the foreign-born white population is particularly high. Perhaps the most striking contrast shown for any race and nativity class, however, is that in the case of the per-

centages for the classes included under the heading of "All other," for the Mountain and Pacific divisions, these elements of the population contributing 18.8 and 9 per cent, respectively, of the blind population of these divisions, as compared with 3.5 and 3.3 per cent of their total population; the difference would be even more marked were the Indian population alone to be considered.

Table 21

DIVISION AND CLASS OF POPULATION.	PER CENT OF TOTAL: 1910.				
	White.			Negro.	All other.
	Total.	Native.	Foreign-born.		
United States:					
Total population.....	88.9	74.4	14.5	10.7	0.4
Blind population.....	83.1	65.7	17.4	15.5	1.5
New England:					
Total population.....	98.9	71.2	27.7	1.0	0.1
Blind population.....	98.3	68.7	29.6	1.6	0.1
Middle Atlantic:					
Total population.....	97.7	72.8	25.0	2.2	0.1
Blind population.....	96.0	67.7	28.3	3.8	0.2
East North Central:					
Total population.....	98.2	81.4	16.8	1.6	0.1
Blind population.....	96.2	73.0	23.2	3.4	0.4
West North Central:					
Total population.....	97.5	83.7	13.9	2.1	0.4
Blind population.....	93.2	70.8	22.5	4.9	1.9
South Atlantic:					
Total population.....	66.2	63.8	2.4	33.7	0.1
Blind population.....	58.3	55.8	2.5	41.6	0.2
East South Central:					
Total population.....	68.4	67.4	1.0	31.5	(1) 0.1
Blind population.....	63.8	61.8	2.1	36.1	
West South Central:					
Total population.....	76.5	72.5	4.0	22.6	0.9
Blind population.....	68.9	61.0	7.8	29.3	1.8
Mountain:					
Total population.....	95.7	79.1	16.6	0.8	3.5
Blind population.....	80.2	62.2	18.1	1.0	18.8
Pacific:					
Total population.....	96.0	75.4	20.5	0.7	3.3
Blind population.....	89.4	62.1	27.3	1.6	9.0

¹ Less than one-tenth of 1 per cent.

Table 22 shows the per cent distribution, by geographic divisions, of the blind population in each race and nativity class, in comparison with that of the total population.

Table 22

DIVISION.	PER CENT DISTRIBUTION OF POPULATION: 1910.					
	All classes.	White.			Negro.	All other.
		Total.	Native.	Foreign-born.		
	TOTAL POPULATION.					
United States.....	100.0	100.0	100.0	100.0	100.0	100.0
New England.....	7.1	7.9	6.8	13.6	0.7	1.4
Middle Atlantic.....	21.0	23.1	20.6	36.2	4.3	4.3
East North Central.....	19.8	21.9	21.7	23.0	3.1	5.4
West North Central.....	12.7	13.9	14.2	12.1	2.5	10.6
South Atlantic.....	13.3	9.9	11.4	2.2	41.8	2.6
East South Central.....	9.1	7.0	8.3	0.7	27.0	0.7
West South Central.....	9.6	8.2	9.3	2.6	20.2	19.1
Mountain.....	2.9	3.1	3.0	3.3	0.2	22.2
Pacific.....	4.6	4.9	4.6	6.5	0.3	33.8
	BLIND POPULATION.					
United States.....	100.0	100.0	100.0	100.0	100.0	100.0
New England.....	7.1	8.4	7.5	12.2	0.7	0.5
Middle Atlantic.....	17.5	20.2	18.0	28.5	4.3	1.9
East North Central.....	20.5	23.7	22.7	27.3	4.5	5.8
West North Central.....	11.7	13.1	12.6	15.1	3.7	15.3
South Atlantic.....	14.5	10.1	12.3	2.1	38.9	1.6
East South Central.....	12.3	9.4	11.5	1.4	28.6	0.6
West South Central.....	9.8	8.1	9.1	4.4	18.6	12.1
Mountain.....	3.1	3.0	3.0	3.2	0.2	40.1
Pacific.....	3.6	3.9	3.4	5.7	0.4	22.2

Perhaps the most striking fact brought out by this table is the much smaller proportion of the blind than of the total foreign-born white population reported from the Middle Atlantic division, this division contributing 36.2 per cent of the total foreign-born white population of the country but only 28.5 per cent of the blind population of this class. This is, of course, explained by the fact that the foreign-born whites in this division comprise a relatively high proportion of the younger and more recent immigrants, who have not yet reached the ages when blindness is most commonly found. The distribution of the native white blind population shows on the whole a fairly close correspondence to that of the total population of this race and nativity; the most marked variation occurs in the East South Central division, and is due to local conditions already referred to. The variations between the two sets of percentages for the negroes probably reflect in the main variations in the age distribution of this class of the population. In the case of the population included under the heading of "All other," the differences are due to a considerable extent to differences in the relative importance in the general population of the Chinese and Japanese elements, which make only an insignificant contribution to the total blind population, this being conspicuously the case with respect to the Pacific division. Another important factor, however, is the extent to which trachoma, which is the principal cause of blindness among the Indian population, is endemic; variations in this respect are probably responsible for the differences shown in the table for the West North Central, West South Central, and Mountain divisions.

Table 23 shows the distribution, by sex, of the blind population in each race and nativity class, together with the number of males per 100 females.

RACE AND NATIVITY.	BLIND POPULATION OF THE UNITED STATES: 1910.			
	Total.	Male.	Female.	Males per 100 females.
All classes	57,272	32,443	24,829	130.7
White	47,585	26,994	20,591	131.1
Native	37,646	21,179	16,467	128.6
Foreign-born	9,939	5,815	4,124	141.0
Colored	9,687	5,449	4,238	128.6
Negro	8,849	4,971	3,878	128.2
Other colored	838	478	360	132.8

For the country as a whole the excess of males is greatest among the foreign-born whites, followed by the "Other colored," the native whites, and the negroes in the order named, the differences in the ratios cor-

responding in the main to the differences in the ratios for the total population of the respective classes.

Table 24 shows, for each geographic division, the ratio of blind to total population for each race and nativity class, by sex.

DIVISION.	BLIND POPULATION PER 100,000 GENERAL POPULATION OF SAME RACE, NATIVITY, AND SEX: 1910.					
	All classes.	White.			Negro.	All other.
		Total.	Native.	Foreign-born.		
MALE.						
United States.....	68.5	64.0	61.1	77.3	101.7	178.3
New England.....	68.2	68.1	66.9	71.0	82.4	42.3
Middle Atlantic.....	57.8	56.7	55.5	59.7	112.5	52.0
East North Central.....	71.2	69.7	64.8	90.8	152.1	188.7
West North Central.....	63.8	61.0	54.1	97.4	158.9	290.0
South Atlantic.....	73.5	64.1	63.6	74.6	92.5	112.6
East South Central.....	90.2	81.8	80.3	172.1	108.7	225.4
West South Central.....	68.7	60.7	56.7	127.3	94.3	136.2
Mountain.....	74.8	63.5	61.7	70.6	85.0	367.8
Pacific.....	58.7	56.0	50.6	72.5	138.0	100.8
FEMALE.						
United States.....	55.6	52.1	48.8	70.8	78.5	249.3
New England.....	56.7	56.0	53.7	62.2	116.3	176.1
Middle Atlantic.....	45.5	44.8	40.9	57.6	71.4	218.6
East North Central.....	56.9	55.7	50.3	85.8	113.6	269.2
West North Central.....	50.3	48.2	42.7	86.8	106.2	297.1
South Atlantic.....	62.2	55.3	55.0	65.4	75.1	130.9
East South Central.....	76.6	73.8	72.7	167.0	82.5	77.7
West South Central.....	58.9	54.2	50.8	124.6	71.9	120.3
Mountain.....	58.9	48.5	43.5	80.2	72.2	365.4
Pacific.....	37.1	33.2	29.2	52.4	83.0	263.3

In every division and for both males and females separately the order of the different race and nativity classes in respect to the ratio of blind to total population is practically the same as for the United States as a whole and for both sexes combined. In the great majority of instances, also, the ratio for males is higher than that for females; the classes included under the heading of "All other," however, constitute a striking exception to this rule, the ratio for females being higher than that for males in the United States as a whole and in six of the nine divisions. This exception results mainly from the very considerable excess of males among the Chinese and Japanese, who are included under this heading and among whom, largely by reason of the relatively small number who have reached the age when the incidence of blindness is greatest, the number of blind persons is, as already pointed out, very small.

RACE, NATIVITY, AND AGE.

General Table 4 (p. 46) shows, for each geographic division, the age distribution of each race and nativity class in the blind population. Table 25 shows, for the United States as a whole, the per cent distribution, by age, for each class.

Table 25

PER CENT DISTRIBUTION OF BLIND POPULATION OF THE UNITED STATES: 1910.¹

AGE GROUP.	All classes.	White.			Negro.	All other.
		Total.	Native.	Foreign-born.		
Total.....	100.0	100.0	100.0	100.0	100.0	100.0
Under 10 years.....	3.1	3.3	4.1	0.4	2.5	2.3
Under 5 years.....	1.0	1.0	1.3	0.1	0.6	1.0
5 to 9 years.....	2.2	2.3	2.8	0.3	1.9	1.3
10 to 19 years.....	7.3	7.4	9.1	0.9	7.5	5.3
10 to 14 years.....	3.5	3.5	4.4	0.4	3.4	2.4
15 to 19 years.....	3.9	3.8	4.7	0.5	4.1	2.9
20 to 29 years.....	7.9	7.5	8.7	2.7	10.3	5.0
30 to 39 years.....	8.4	8.1	9.0	4.6	10.4	6.9
40 to 49 years.....	10.7	10.6	10.9	9.4	11.6	10.8
50 to 59 years.....	13.0	13.0	13.0	13.1	13.3	11.1
60 to 69 years.....	16.8	17.2	16.1	21.1	14.5	19.1
70 to 79 years.....	17.9	18.6	16.4	27.2	14.0	16.7
80 years or over.....	14.8	14.4	12.8	20.6	15.9	22.8

¹ Based upon the population whose age was reported.

The individual race and nativity classes show wide differences in regard to the age distribution of the blind population, resulting mainly from differences in the age distribution of the general population of the respective classes. Thus persons 60 years of age or over constituted more than two-thirds (68.9 per cent) of the foreign-born white blind population in 1910 and nearly three-fifths (58.7 per cent) of the classes included under the heading "All other," as compared with considerably less than one-half (45.3 per cent and 44.4 per cent, respectively) in the case of the native whites and the negroes. While the high proportion for the foreign-born whites is due mainly to the fact that the proportion of old people in the general population of this class is much higher than it is in the other classes, it seems probable that the more or less stringent physical examination which immigrants are required to undergo is also an important factor. Nearly three-fifths (59.6 per cent) of the foreign-born white blind population were 65 years of age or over. The proportion of persons under 20 years of age was highest (13.1 per cent) in the native white population, and was also high (10 per cent) among the negro blind; among the foreign-born whites, on the other hand, it was only 1.3 per cent, while among the "All other" class the percentage was 7.6, the extremely low percentage for the former class resulting from the fact that the immigrants coming into the country comprise comparatively few children. Adults between the ages of 20 and 60 were most numerous relatively among the negroes and native whites, the percentages being 45.6 and 41.6, respectively; among the "All other" class they represented 33.8 per cent and among the foreign-born whites 29.8 per cent.

These differences in the age distribution of the respective classes result in wide differences in the median age, as shown by Table 26, which gives the median age of the total and the blind population, respectively, in 1910, classified according to race, nativity, and sex.

Table 26

MEDIAN AGE OF POPULATION OF THE UNITED STATES: 1910.¹

RACE AND NATIVITY.	MEDIAN AGE OF POPULATION OF THE UNITED STATES: 1910. ¹					
	Total.			Blind.		
	Both sexes.	Male.	Female.	Both sexes.	Male.	Female.
All classes.....	24.0	24.6	23.5	59.6	57.3	62.3
White.....	24.4	24.9	23.9	60.1	58.1	62.5
Native.....	21.4	21.5	21.3	56.3	54.7	58.7
Foreign-born.....	37.1	36.7	37.0	69.1	66.9	71.8
Colored.....	21.0	21.5	20.6	56.4	53.3	61.4
Negro.....	20.8	21.1	20.6	55.4	52.4	60.8
Other colored.....	26.3	29.0	19.8	64.7	63.7	66.1

¹ Based upon the population whose age was reported.

The median age of the reported blind population of both sexes ranges from 55.4 years in the case of the negroes and 56.3 years in the case of the native whites to 64.7 years among the "Other colored" and to 69.1 years among the foreign-born whites, the difference between the median for the negroes and that for the foreign-born whites being approximately 14 years.

Table 27 shows for the United States as a whole the ratio of blind to total population, by age groups, for each race and nativity class.

Table 27

BLIND POPULATION OF THE UNITED STATES PER 100,000 GENERAL POPULATION OF SAME RACE, NATIVITY, AND AGE: 1910.

AGE GROUP.	All classes.	White.			Negro.	All other.
		Total.	Native.	Foreign-born.		
Total.....	62.3	58.2	55.0	74.5	90.0	203.1
Under 5 years.....	5.2	5.2	5.2	4.9	4.5	17.7
Under 1 year.....	3.2	3.2	3.2	.....	2.4	10.7
1 to 4 years.....	5.7	5.7	5.7	5.2	5.0	19.5
5 to 9 years.....	12.8	12.6	12.7	10.4	13.2	28.3
10 to 14 years.....	21.9	21.2	21.7	10.9	25.6	59.8
15 to 19 years.....	24.3	22.7	24.2	7.4	34.3	69.0
20 to 24 years.....	24.9	22.4	25.3	8.7	43.2	55.3
25 to 29 years.....	27.5	24.3	28.9	8.7	52.8	48.0
30 to 34 years.....	32.9	29.4	34.4	13.5	62.9	81.5
35 to 39 years.....	39.6	35.0	40.6	17.9	78.3	87.6
40 to 44 years.....	53.2	47.9	54.4	30.5	101.9	106.0
45 to 49 years.....	74.4	67.1	75.3	46.2	143.6	211.5
50 to 54 years.....	98.1	86.3	93.4	66.3	154.1	237.0
55 to 59 years.....	132.6	121.3	129.5	99.2	256.7	350.5
60 to 64 years.....	197.7	182.4	197.3	148.0	339.4	671.1
65 to 69 years.....	303.8	282.5	302.8	238.5	518.0	1,333.6
70 to 74 years.....	458.9	423.6	442.4	384.9	847.3	1,897.6
75 to 79 years.....	765.5	721.3	745.4	673.4	1,285.8	2,748.7
80 to 84 years.....	1,283.3	1,192.3	1,275.5	1,033.7	2,115.0	4,691.4
85 years or over.....	2,574.8	2,320.7	2,459.7	2,048.1	3,880.2	7,997.5

It is apparent from this table that the considerably higher ratio of blind to total population which the foreign-born whites as a class show when compared with the native whites is due solely to the high proportion of old persons among the foreign born, as when the comparison is made for the individual age groups the higher ratio is invariably that for the native whites. The relatively low ratios for the foreign-born whites, of course, are due mainly to the fact that under normal circumstances the number of blind immigrants will always be very small. At the same time the restrictive provisions of the immigration law have probably re-

sulted in making the immigrants entering the country a specially selected class so far as the risk of blindness is concerned. A particularly important circumstance in this connection is the fact that trachoma, one of the most serious causes of blindness, has been classified by the United States Public Health Service as a dangerous contagious disease, and consequently, under the law, is an absolute bar to admission in the case of any immigrant afflicted with it.

In practically every 5-year age group, as well as in the general population without distinction of age, the highest ratio is shown for the classes included under the heading of "All other," and the next highest for the negroes, the only exceptions, being the group comprising children under 5 years of age, in which the ratio is higher for both the native whites and the foreign-born whites than for the negroes, and that comprising persons from 25 to 29 years of age, in which the negroes show the highest ratio. In general, the ratio increases with each succeeding age group. The concentration of the Chinese and Japanese population, among whom very few blind persons were enumerated,

in the years of early and middle adult life, however, interrupts the regularity of the increase in the case of the "All other" class; and among the foreign-born whites the ratios for the age groups comprising persons of from 15 to 29 years are lower than those for the groups between 5 and 14 years—a condition which may be due to the fact that the earlier age groups of the foreign-born population comprise mainly children brought over to the United States by their parents or other relatives, among whom the number already afflicted with blindness on entry or likely to go blind soon after entry would probably be somewhat greater relatively than it would be among adult immigrants, most of whom have come to the United States on their own initiative. In the case of all four classes for which figures are given, the increase in the ratio is relatively slow up to the age of 40, after which it proceeds with constantly accelerated rapidity.

Table 28 shows for the native whites, foreign-born whites, and negroes in each geographic division the ratio of the reported blind to the total population of the same race, nativity, and age.

TABLE 28.—NATIVE AND FOREIGN-BORN WHITE AND NEGRO BLIND POPULATION, CLASSIFIED ACCORDING TO AGE, PER 100,000 OF THE GENERAL POPULATION OF THE SAME RACE, NATIVITY, AND AGE, BY DIVISIONS: 1910.

AGE GROUP.	BLIND POPULATION PER 100,000 GENERAL POPULATION OF SAME RACE, NATIVITY, AND AGE: 1910.														
	White.			White.			White.			White.			White.		
	Native.	Foreign-born.	Negro.	Native.	Foreign-born.	Negro.	Native.	Foreign-born.	Negro.	Native.	Foreign-born.	Negro.	Native.	Foreign-born.	Negro.
	UNITED STATES.			NEW ENGLAND DIVISION.			MIDDLE ATLANTIC DIVISION.			EAST NORTH CENTRAL DIVISION.			WEST NORTH CENTRAL DIVISION.		
Total.....	55.0	74.5	90.0	60.2	66.7	99.5	48.2	58.7	91.4	57.6	88.6	133.6	48.5	93.0	133.5
Under 5 years.....	5.2	4.9	4.5	7.1	.....	17.0	5.3	5.3	8.5	5.1	4.8	.....	3.8	.....	5.2
Under 1 year.....	3.2	.....	2.4	3.0	.....	.....	3.5	.....	12.9	2.8	.....	.....	0.8	.....	.....
1 to 4 years.....	5.7	5.2	5.0	8.3	.....	21.9	5.7	5.6	7.3	5.7	5.1	.....	4.6	.....	6.5
5 to 9 years.....	12.7	10.4	13.2	15.3	21.9	.....	12.2	5.5	19.3	11.8	14.9	17.5	9.2	.....	25.1
10 to 14 years.....	21.7	10.9	25.6	24.6	14.8	39.3	17.6	7.0	27.0	20.3	9.2	25.9	14.5	20.5	14.8
15 to 19 years.....	24.2	7.4	34.3	25.2	8.8	58.3	17.7	5.9	33.7	23.1	6.7	42.9	16.4	5.8	26.4
20 to 24 years.....	25.3	8.7	43.2	25.7	14.0	15.0	20.7	7.2	18.5	25.6	6.0	34.3	19.8	10.3	45.3
25 to 29 years.....	28.9	8.7	52.8	26.1	6.7	38.3	25.2	6.3	25.0	29.7	9.2	29.2	26.6	12.1	44.7
30 to 34 years.....	34.4	13.5	62.9	33.6	12.2	15.0	27.9	10.7	41.2	36.5	14.6	84.8	33.5	18.6	76.2
35 to 39 years.....	40.6	17.9	78.3	37.3	17.8	30.8	37.3	14.1	71.2	43.0	18.0	74.0	39.0	19.9	94.6
40 to 44 years.....	54.4	30.5	101.9	49.5	31.9	107.1	49.8	27.1	71.7	58.3	29.4	104.7	55.2	35.5	87.9
45 to 49 years.....	75.3	46.2	143.6	68.2	39.8	162.0	69.6	47.7	144.3	76.3	42.3	197.7	74.1	44.8	167.7
50 to 54 years.....	93.4	66.3	194.1	88.8	66.2	168.5	84.6	71.6	194.9	99.4	60.3	297.4	96.7	53.1	252.7
55 to 59 years.....	129.5	99.2	256.7	93.0	124.0	248.0	115.3	94.3	370.6	132.6	92.6	310.7	134.0	87.4	276.3
60 to 64 years.....	197.3	148.0	339.4	169.3	189.0	653.2	180.2	159.5	475.9	206.2	158.3	443.0	196.7	94.1	522.3
65 to 69 years.....	302.8	238.5	518.0	225.8	253.2	785.9	251.1	280.7	839.3	308.2	234.0	858.7	301.8	180.0	812.8
70 to 74 years.....	442.4	384.9	847.3	372.7	460.1	313.0	343.4	421.0	1,106.2	428.9	346.2	1,040.7	434.1	310.4	901.6
75 to 79 years.....	745.4	673.4	1,285.8	557.5	776.2	824.2	605.7	687.4	935.7	785.6	618.7	1,185.0	736.5	649.9	1,566.4
80 to 84 years.....	1,275.5	1,033.7	2,115.0	812.1	1,097.3	990.1	1,068.9	1,046.6	1,209.2	1,315.4	1,001.5	2,066.1	1,375.1	1,027.9	2,204.9
85 years or over.....	2,459.7	2,048.1	3,880.2	1,709.9	2,476.4	5,263.2	1,959.3	1,949.2	3,520.0	2,384.1	1,912.8	4,125.0	2,828.1	1,985.0	4,046.2
	SOUTH ATLANTIC DIVISION.			EAST SOUTH CENTRAL DIVISION.			WEST SOUTH CENTRAL DIVISION.			MOUNTAIN DIVISION.			PACIFIC DIVISION.		
Total.....	59.3	70.9	83.7	76.5	165.8	95.5	53.8	126.2	83.1	53.3	73.9	70.2	40.6	65.4	113.0
Under 5 years.....	6.2	.....	4.2	7.9	.....	2.3	3.7	16.9	7.8	4.5	23.7	.....	2.9	.....	.....
Under 1 year.....	3.5	.....	1.7	7.6	.....	.....	3.0	.....	6.0	4.9	.....	.....	1.4	.....	.....
1 to 4 years.....	6.9	.....	4.8	8.0	.....	2.9	3.8	.....	8.2	4.4	25.4	.....	3.3	.....	.....
5 to 9 years.....	15.5	26.3	14.1	18.1	.....	12.8	12.4	24.2	10.5	12.7	10.4	.....	9.3	.....	.....
10 to 14 years.....	30.8	.....	28.3	33.7	55.2	20.6	21.4	26.6	27.5	25.5	19.9	.....	18.1	6.0	.....
15 to 19 years.....	31.4	12.9	34.4	41.6	34.7	31.6	26.7	15.2	36.9	25.8	5.9	.....	26.0	13.3	93.3
20 to 24 years.....	28.3	3.2	42.9	30.4	18.0	52.7	28.6	32.5	40.0	31.0	4.2	.....	19.7	8.5	.....
25 to 29 years.....	34.6	11.1	53.9	40.6	13.7	56.8	30.1	43.4	60.8	29.7	10.0	69.3	17.2	9.0	26.8
30 to 34 years.....	35.5	15.5	62.2	53.7	.....	72.9	36.2	27.1	56.8	35.7	7.4	.....	10.8	19.4	.....
35 to 39 years.....	43.9	26.2	78.2	49.5	38.3	91.9	47.2	47.7	64.7	40.7	18.5	89.5	21.4	20.4	31.3
40 to 44 years.....	52.8	14.6	104.8	71.8	39.7	125.9	59.6	31.1	79.6	44.4	44.7	.....	39.0	36.0	41.9
45 to 49 years.....	71.2	31.0	145.6	100.2	75.5	139.0	90.9	82.3	129.0	76.7	46.9	145.2	56.0	55.2	149.6
50 to 54 years.....	87.2	72.0	184.8	114.9	67.2	209.1	108.5	88.6	158.2	79.0	87.8	311.2	64.3	72.1	143.3
55 to 59 years.....	130.9	145.4	254.2	170.4	110.5	244.4	153.3	160.4	239.2	144.7	146.0	168.9	104.6	69.8	125.8
60 to 64 years.....	175.8	79.0	309.8	250.2	166.3	337.9	238.2	223.0	314.3	242.0	161.3	.....	155.5	103.3	640.0
65 to 69 years.....	308.6	179.4	418.0	431.1	294.0	545.4	399.2	260.4	483.9	362.8	291.0	.....	251.9	200.9	1,047.1
70 to 74 years.....	460.4	388.3	787.4	680.4	501.2	783.8	656.7	684.8	982.7	815.8	448.7	793.7	268.2	313.8	1,315.8
75 to 79 years.....	782.6	566.1	1,279.7	1,113.3	982.8	1,373.9	1,047.0	857.0	1,201.3	1,158.7	851.6	1,219.5	458.0	642.2	2,668.7
80 to 84 years.....	1,400.3	612.8	2,086.8	1,023.7	1,611.7	2,255.3	1,756.8	1,046.6	2,110.5	1,894.7	1,568.7	8,510.6	1,018.2	796.8	1,162.8
85 years or over.....	2,875.3	2,274.6	3,706.4	3,758.8	1,872.1	4,005.7	3,285.0	3,352.9	3,755.1	5,437.2	2,406.2	5,263.2	1,417.3	1,976.6	7,936.5

In general, the differences between the ratios for the three classes shown in the table in the individual geographic divisions are of much the same character as those shown for the United States as a whole. Some significant variations appear, however; in particular, certain exceptions are to be observed to the general rule that when the individual age groups are considered, the ratio for the native whites will ordinarily exceed that for the foreign-born whites. The most important of these exceptions are those occurring in the New England and to a somewhat less extent in the Middle Atlantic divisions, where the ratios for the foreign-born whites in the later age groups tend to exceed the corresponding ratios for the native whites. The reason for this departure from the usual rule is not altogether easy to explain, although it is probable that the foreign-born population of these divisions are engaged in occupations having a special hazard of blindness to a much greater extent than is the case with the native population, a fact which might eventually counteract the somewhat more favorable constitution of the former class as regards tendency to blindness. Other exceptions to the rule occur in the West South Central division, where the ratios in the age groups comprising persons under 30 are in general higher for the foreign-born whites, probably as a result of the generally high ratio of blindness among the Mexicans, who constitute the bulk of the younger foreign-born population in this division; and in the Pacific division, where the ratios for the age groups between 30 and 50 show a remarkably close correspondence for the two classes, probably by reason of the fact that the native white population in these age groups consists largely of migrants from other states, and, therefore, like the foreign-born population, to all intents and purposes constitutes a specially selected class.

In all the divisions the ratios for the negroes are, as a rule, higher than the corresponding ratios for the two classes of the white population; in the South Atlantic and East South Central divisions, however, the ratio for the native whites in the age groups under 20 years is in general higher than that for the negroes. The exception just mentioned is largely to be explained by the fact that trachoma, which is probably the most important single cause of blindness among children in these divisions, is in these sections of the country endemic mainly in the regions where the negro population is comparatively small, although the investigations of the United States Public Health Service tend also to show that the negroes are somewhat less susceptible to trachoma than are the whites.

The interruption to the regularity of the increase in the ratio with each succeeding age group in the case of the foreign-born whites, which is shown by the figures for the United States as a whole, is also to be observed in each geographic division, although it does not always take place at the same age. Somewhat similar interruptions occur in the case of the negroes in the four northern divisions, possibly reflecting the influence of migration from other divisions. The acceleration of the increase in the ratio after the age of 40, which Table 27 shows for each class for the country as a whole, is also to be noted in practically every instance in Table 28, although there are a few cases in which it appears to be postponed until the age of 45.

General Table 5 (p. 48) shows, for the United States as a whole, the age distribution of each race and nativity class in the blind population, by sex. Table 29 shows the per cent distribution, by 10-year age groups, of the male and female blind population, respectively, in each class.

Table 29 PER CENT DISTRIBUTION OF BLIND POPULATION OF THE UNITED STATES: 1910.¹

AGE GROUP.	All classes.		White.						Negro.		All other.			
	Male.	Female.	Total.				Native.		Foreign-born.		Male.	Female.	Male.	Female.
			Male.	Female.	Male.	Female.	Male.	Female.						
									Male.	Female.				
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0			
Total.....	100.0	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 10 years.....	3.0	3.3	3.1	3.5	3.9	4.3	0.4	0.3	2.3	2.8	2.5	2.0		
Under 5 years.....	0.9	1.0	1.0	1.1	1.2	1.4	(²)	0.1	0.7	0.6	1.1	0.8		
5 to 9 years.....	2.1	2.3	2.2	2.4	2.7	2.9	0.4	0.2	1.6	2.2	1.5	1.1		
10 to 14 years.....	7.2	7.6	7.1	7.6	8.9	9.3	0.8	1.0	7.7	7.2	4.6	6.2		
10 to 14 years.....	3.4	3.6	3.4	3.7	4.3	4.5	0.3	0.6	3.5	3.1	2.5	2.2		
15 to 19 years.....	3.8	4.0	3.7	3.9	4.6	4.8	0.6	0.4	4.2	4.1	2.1	3.0		
20 to 24 years.....	8.1	7.6	7.7	7.2	8.9	8.5	3.2	2.1	10.8	9.7	4.4	5.9		
30 to 34 years.....	9.3	7.3	8.9	7.0	9.8	8.0	5.5	3.3	11.9	8.5	6.5	7.3		
40 to 44 years.....	12.1	8.9	11.9	8.9	12.0	9.5	11.4	6.5	13.4	9.2	12.2	9.0		
50 to 54 years.....	14.0	11.7	13.9	11.9	13.7	12.1	14.7	10.9	14.9	11.3	13.1	8.4		
60 to 64 years.....	17.0	16.5	17.4	16.9	16.2	16.0	21.5	20.7	14.7	14.1	19.4	13.8		
70 to 74 years.....	17.1	19.0	17.8	19.7	15.8	17.1	25.1	30.2	13.1	15.2	15.8	17.9		
80 years or over.....	12.2	18.1	12.2	17.3	10.8	15.3	17.4	25.1	11.2	22.0	21.5	24.6		

¹ Based upon the population whose age was reported.

² Less than one-tenth of 1 per cent.

As in the blind population as a whole, so in each of the four principal race and nativity classes, the proportion of old people is higher among the female blind than it is among the male, although the extent of the divergence varies, being considerable in the case of the

foreign-born whites and negroes, and relatively small in the case of the native whites and the classes included under the heading of "All other." Of the foreign-born white females in the blind population in 1910, more than three-fourths (76 per cent) were 60 years of age

or over and more than one-half (55.3 per cent) 70 or over, while of the males only a little more than three-fifths (64 per cent) were 60 or over and only a little more than two-fifths (42.5 per cent) 70 or over, the wide differences in the percentages, of course, resulting from the fact that the male foreign-born population is much younger relatively than the female, and is also employed to a considerable degree in occupations having a special risk of blindness from injury. Of the blind negro females, about one-half (51.2 per cent) were 60 years of age or over, as compared with a corresponding percentage of 39, or less than two-fifths, for the males. As the male negro population as a whole contains a somewhat higher proportion of old persons than does the female, it is obvious that the differences here noted can not be accounted for by the age composition of the respective sexes. In the case of the native whites and the races included under the heading "All other" there is a fairly close correspondence between the proportions 60 years of age or over for the two sexes, the percentages being 42.9 for males and 48.4 for females in the case of the former class, and 56.6 and 61.3, respectively, in the case of the latter.

The proportions of persons under 20 years of age in the blind population of the various classes show comparatively little difference for the two sexes, the per-

centages being 12.8 and 13.6, respectively, in the case of the native whites, 1.2 and 1.3 in the case of the foreign-born whites, 10 for each sex in the case of the negroes, and 7.2 and 8.1 in the case of the "All other" group. More than one-half (51 per cent) of the blind negro males were adults from 20 to 59 years of age, and the proportion was also fairly high (44.4 per cent) among the native whites, while among the "All other" class it was 36.2 per cent, and among the foreign-born whites 34.8 per cent. In the female blind population, the highest percentage within these age groups (38.7) is shown for the negroes, although that for the native whites (38) was nearly as high; for the classes included under the heading "All other," however, it was only 30.5, while among the foreign-born whites the proportion was less than one-fourth (22.7 per cent).

Table 26 (p. 27) shows the median age of the male and female blind population, respectively, in each race and nativity class. From this table it will be seen that for the two white classes the median age of the female blind is about four years greater than that of the male blind; in the case of the negroes, however, the difference is about eight years, while among the "Other colored" it is only two and a half years.

Table 30 shows, by 5-year age groups, the ratio of the reported blind to the total population of the same race, nativity, sex, and age.

Table 30

BLIND POPULATION PER 100,000 GENERAL POPULATION OF SAME RACE, NATIVITY, SEX, AND AGE: 1910.

AGE GROUP.	All classes.		White.						Negro.		All other.	
	Male.	Female.	Total.		Native.		Foreign-born.		Male.	Female.	Male.	Female.
			Male.	Female.	Male.	Female.	Male.	Female.				
Total.....	68.5	55.6	64.0	52.1	61.1	48.8	77.3	70.8	101.7	78.5	178.3	249.3
Under 5 years.....	5.5	4.8	5.5	4.9	5.5	4.9	3.9	5.9	5.4	3.6	22.1	13.3
Under 1 year.....	2.8	3.5	3.0	3.4	3.0	3.4	.....	.....	1.6	3.2	.....	21.5
1 to 4 years.....	6.2	5.2	6.1	5.3	6.2	5.3	.....	.....	6.4	3.7	.....	11.2
5 to 9 years.....	13.6	11.0	13.7	11.6	13.6	11.8	13.9	6.3	12.9	13.5	.....	27.9
10 to 14 years.....	24.1	19.7	23.0	19.4	23.7	19.7	8.3	13.6	30.3	21.0	.....	20.7
15 to 19 years.....	26.9	21.6	25.1	20.4	28.7	21.7	9.1	5.6	40.6	28.6	.....	50.3
20 to 24 years.....	27.7	22.0	24.6	20.0	28.5	22.7	9.3	7.9	40.6	28.6	.....	49.5
25 to 29 years.....	27.9	22.7	25.0	20.2	34.1	23.7	10.7	5.8	52.5	35.0	.....	79.4
30 to 34 years.....	31.9	22.7	28.0	20.2	41.4	23.7	15.3	10.9	67.3	39.4	.....	97.2
35 to 39 years.....	38.7	25.4	34.4	23.8	49.0	27.2	22.8	11.2	80.4	45.5	.....	159.8
40 to 44 years.....	47.6	30.6	41.9	27.3	65.2	31.8	37.4	21.0	99.9	56.2	.....	133.5
45 to 49 years.....	64.1	40.8	57.0	37.7	90.9	58.5	57.0	30.6	174.1	110.8	.....	248.0
50 to 54 years.....	80.5	57.3	80.9	51.3	104.9	80.5	77.3	51.7	224.7	156.8	.....	314.6
55 to 59 years.....	108.9	81.0	97.3	73.5	145.5	111.8	117.9	76.6	280.3	216.9	.....	417.0
60 to 64 years.....	150.7	111.8	137.8	102.6	216.4	176.9	166.3	127.5	346.0	331.6	.....	1,012.0
65 to 69 years.....	215.6	178.1	201.0	162.2	216.4	176.9	166.3	127.5	346.0	331.6	.....	1,012.0
70 to 74 years.....	340.3	265.1	316.9	246.6	338.6	266.1	271.3	202.6	559.2	467.7	.....	1,497.1
75 to 79 years.....	491.1	426.2	453.5	393.4	481.0	404.0	398.3	370.9	896.0	794.7	.....	1,909.4
80 to 84 years.....	834.6	697.3	795.3	648.7	828.6	665.7	731.4	613.8	1,261.7	1,311.4	.....	2,577.8
85 years or over.....	1,324.3	1,245.8	1,235.7	1,152.3	1,323.6	1,232.6	1,076.4	991.6	2,120.4	2,110.5	.....	3,899.1
	2,545.4	2,598.9	2,385.0	2,267.5	2,589.1	2,357.8	2,015.8	2,077.7	3,184.0	4,411.2	9,090.9	6,577.3

The figures showing the ratios of blind to total population in the different age groups of the various race and nativity classes disclose practically the same tendencies when the two sexes are considered separately as do those for both sexes combined. It will be observed that the excess of the female ratio over the male ratio, which has already been noted as existing in the case of the races included under the heading of "All other," is almost entirely confined to the age groups comprising persons from 15 to 70 years of age,

in which the Chinese and Japanese population, which, as already stated, contains relatively few females and blind persons, is mainly concentrated. The interruption to the increase in the ratio in the case of the foreign-born whites, to which attention has already been called, appears to occur somewhat earlier in the case of the males than in that of the females. The general acceleration in the increase in the ratio after the age of 40, previously noted, appears to be common to the two sexes, except among the negroes, where

the increase in the female ratio does not show any marked acceleration until the age of 45.

COUNTRY OF BIRTH OF FOREIGN-BORN WHITES.

General Table 2 (p. 42) shows the distribution, according to country of birth, of the foreign-born white blind population of each geographic division and state. Table 31 compares this distribution for the United States as a whole with that of the total foreign-born white population, and also shows the ratio of blind to total population for each country of birth.

Table 31

FOREIGN-BORN WHITE POPULATION OF THE UNITED STATES: 1910.

COUNTRY OF BIRTH.	Total.		Blind.		
	Number.	Per cent distribution.	Number.	Per cent distribution.	Number per 100,000 general population of same nativity.
All countries.....	13,345,545	100.0	9,939	100.0	74.5
Austria-Hungary.....	1,670,524	12.5	376	3.8	22.5
Austria.....	1,174,924	8.8	306	3.1	26.0
Hungary.....	495,600	3.7	70	0.7	14.1
Canada and Newfoundland.....	1,201,146	9.0	973	9.8	81.0
Of French parentage.....	385,083	2.9	360	3.6	93.5
Of other parentage ¹	816,063	6.1	613	6.2	75.1
England and Wales.....	958,934	7.2	1,119	11.3	116.7
France.....	117,236	0.9	116	1.2	98.9
Germany.....	2,501,181	18.7	2,653	26.7	106.1
Ireland.....	1,352,155	10.1	2,293	23.1	169.6
Italy.....	1,343,070	10.1	257	2.6	19.1
Mexico.....	219,802	1.6	326	3.3	148.3
Netherlands, Belgium, and Luxemburg.....	172,518	1.3	161	1.6	93.3
Netherlands and Luxemburg.....	123,121	0.9	138	1.4	112.1
Belgium.....	49,397	0.4	23	0.2	46.6
Russia and Finland.....	1,732,421	13.0	392	3.9	22.6
Russia.....	1,602,752	12.0	356	3.6	22.2
Finland.....	129,669	1.0	36	0.4	27.8
Scandinavia.....	1,250,662	9.4	790	7.9	63.2
Denmark.....	181,621	1.4	103	1.0	56.7
Norway.....	403,858	3.0	293	2.9	72.6
Sweden.....	665,183	5.0	394	4.0	59.2
Scotland.....	261,034	2.0	214	2.2	82.0
Switzerland.....	124,831	0.9	125	1.3	100.1
Other countries ²	440,028	3.3	144	1.4	32.7

¹ Includes all persons reporting Newfoundland as country of birth.
² Includes persons born at sea.

born in Mexico ranking next, with a ratio of 148.3 per 100,000, while England and Wales, the Netherlands and Luxemburg, Germany, and Switzerland each show ratios exceeding 100 per 100,000. In most cases, of course, these high ratios do not indicate any special tendency to blindness on the part of the given nationality, but rather that the natives of these countries include an exceptionally high proportion of old people, and in general the variations in the ratios shown in the table, with the resultant variations in the relative importance of the respective countries of birth in the blind as compared with the total foreign-born white population, reflect differences in the age distribution of the members of the respective nationalities in the United States. In some cases, however, other factors are undoubtedly of importance in affecting the ratios; in the case of the Mexicans, in particular, it seems probable that the relatively large number of blind persons reported is due not so much to an exceptionally high proportion of old people, though there is some reason to believe that the proportion of old people in the population of Mexican birth is fairly high, as it is to a combination of other conditions, such as the fact that the Mexicans in the United States are employed largely in mining and railroad construction, branches of industry having a special hazard of blindness, the relatively high prevalence among this element of the population of smallpox and possibly of other diseases affecting the vision, and perhaps a greater tendency to permit affections of the eye to run their course without seeking medical relief.

MARITAL CONDITION.

Table 32 shows the distribution, according to marital condition, of the total and the blind population 15 years of age or over in 1910.

Table 32

POPULATION OF THE UNITED STATES 15 YEARS OF AGE OR OVER: 1910.¹

MARITAL CONDITION.	Total.		Blind.	
	Number.	Per cent distribution.	Number.	Per cent distribution.
MALE.				
Total.....	32,425,805	100.0	30,365	100.0
Single.....	12,550,129	38.7	9,777	32.2
Married, widowed, or divorced.....	19,720,152	60.8	20,436	67.3
Married.....	18,092,600	55.8	18,911	45.8
Widowed.....	1,471,390	4.5	6,208	20.4
Divorced.....	156,162	0.5	317	1.0
Marital condition not reported.....	155,524	0.5	152	0.5
FEMALE.				
Total.....	30,047,325	100.0	23,111	100.0
Single.....	8,933,170	29.7	6,752	29.2
Married, widowed, or divorced.....	21,045,983	70.0	16,272	70.4
Married.....	17,684,687	58.9	6,105	26.4
Widowed.....	3,176,228	10.6	10,019	43.4
Divorced.....	185,068	0.6	148	0.6
Marital condition not reported.....	68,172	0.2	87	0.4

¹ Includes those whose age was not reported.

Four countries—Germany, Ireland, England and Wales, and Canada (including Newfoundland)—furnished the great bulk (70.8 per cent) of the foreign-born white blind population, Germany, with 26.7 per cent, or a little more than one-fourth, and Ireland, with 23.1 per cent, or a little less than one-fourth, together contributing practically one-half of the total. Of the total foreign-born white population, these countries contributed 45.1 per cent, Germany contributing 18.7 per cent and Ireland 10.1 per cent. The fact that the natives of these countries in the United States include more than their due proportion of the foreign-born white blind population results mainly from the fact that these are the countries most numerously represented among the earlier immigrants, who naturally comprise a larger proportion of persons who have attained the ages when blindness is most prevalent. Persons of Irish birth show the highest ratio of blind to total number (169.6 per 100,000), persons

Of the male blind population 15 years of age or over in 1910 about one-third (32.2 per cent) were single and about two-thirds (67.3 per cent) married, widowed, or divorced; among the female blind population the percentage single was somewhat less (29.2) and the percentage married, widowed, or divorced somewhat greater (70.4). In the general population the difference between the sexes as regards the percentage single is even more marked than it is for the blind, and is due in part to the excess of males and in part to the fact that women normally marry at a younger age than men. Doubtless this latter fact is largely responsible for the difference in the case of the blind also, especially in view of the probability that a large proportion of the blind who have been married were married before blindness occurred.

Although in the case of the blind there is not much difference between the sexes as regards the proportion of persons who are or have been married, there is a very marked difference in the relative number of married and of widowed. In the case of the male blind population 15 years of age or over in 1910 considerably more than two-fifths (45.8 per cent) were married and one-fifth (20.4 per cent) widowed, while among the females only about one-fourth (26.4 per cent) were married, and more than two-fifths (43.4 per cent) were widowed. The reason for these wide differences is, of course, to be found partly in the greater age of the female blind population and partly in the fact that widows are much more numerous than widowers in the general population.

The fact that the percentage single is somewhat less in the male blind population than in the total male population, and the further fact that the percentages single for females in the blind and the general population are practically the same, must, of course, not be taken as indicating that the tendency to marriage among the blind is as great as, or greater than, the corresponding tendency in the population at large. If in the case of the blind the tendency to marry was in fact normal, the percentage single would be decidedly smaller, and the percentage married, widowed, or divorced decidedly larger, than in the total population, for the simple reason that, as already shown by the statistics regarding age, a very large proportion of the blind are past middle life, or, in other words, have reached the age when in a normal class of population most people have married. In view of this peculiar age composition the percentage single among the blind instead of being normal, as the figures in Table 32 might suggest, is in fact very abnormal. It is

possible to ascertain approximately the normal proportion of single in a group having the same age composition as the blind by computing what the total number of single persons among the blind would be if in each age group the percentage single was the same as it is for the same age group in the total population. On that assumption the number of single males would have been only 5,320, or 17.5 per cent of the total, and the number of single females only 3,102, or 13.4 per cent of the total. In other words, instead of 16,529 single persons, representing 30.9 per cent of the total, in the blind population 15 years of age or over, the number single would have been only 8,402, representing 15.7 per cent of the total, or only about one-half as great, and instead of 36,708 not single (that is, married, widowed, or divorced), the number not single would have been 44,775, or about one-fifth greater. The difference between the two sets of figures affords a rough measure of the extent to which blindness acts as a bar to marriage.

Although married, widowed, or divorced persons taken together represent approximately the same proportion of the general population and of the blind population, respectively, there is a decided difference in the relative importance both of the married and of the widowed when considered separately. Among the males of 15 or over the proportion married is somewhat less than it is in the general population of the same age and the proportion widowed much greater, while for the females the difference is even more striking, the percentages for the married being 26.4 and 58.9, respectively, and those for the widowed 43.4 and 10.6, respectively. These differences are, of course, due primarily to the much greater age of the blind population, although it should also be borne in mind that the blind widowers and widows are probably less likely to remarry than those who have their sight.

Table 33 (p. 33) shows the distribution, according to marital condition, of the blind population in the principal foreign countries for which statistics are available.

General Table 6 (p. 49) shows, for each geographic division and state, the distribution according to marital condition of the male and female blind population, respectively. General Table 7 (p. 50) distributes the male and female blind population in each race and nativity class according to marital condition. General Table 8 (p. 50) shows the distribution, according to marital condition, of the blind population 15 years of age or over in 1910 by age groups.

TABLE 33.—BLIND POPULATION OF THE UNITED STATES AND OF FOREIGN COUNTRIES, CLASSIFIED ACCORDING TO MARITAL CONDITION.

COUNTRY.	Year.	BLIND POPULATION.											
		Male.											
		Number.						Per cent of total. ¹					
		Total.	Single.	Married, widowed, or divorced.				Marital condition not reported.	Single.	Married, widowed, or divorced.			
Total.	Married.			Widowed.	Divorced.	Total.	Married.			Widowed.	Divorced.		
AMERICA.													
Canada.....	1911	1,850	776	1,064	779	285	-----	10	42.2	57.8	42.3	15.5	-----
United States:													
Continental United States..	1910	32,443	² 11,855	20,436	13,911	6,208	317	152	36.7	63.3	43.1	19.2	1.0
Hawaii.....	1910	112	43	69	38	30	1	-----	38.4	61.6	33.9	26.8	0.9
Porto Rico.....	1910	727	283	389	202	185	2	55	42.1	57.9	30.1	27.5	0.3
EUROPE.													
Bulgaria.....	1905	2,430	705	1,725	1,136	576	13	-----	29.0	71.0	46.7	23.7	0.5
Denmark ³	1911	691	360	331	227	100	4	4	52.1	47.9	32.9	14.5	0.6
England and Wales.....	1911	13,257	5,434	7,823	5,537	2,286	(⁵)	-----	41.0	59.0	41.8	17.2	-----
France.....	1901	14,721	3,547	8,745	5,932	⁶ 2,813	(⁵)	7 2,429	28.9	71.1	48.3	⁶ 22.9	(⁶)
Germany.....	1900	17,818	7,823	9,970	7,069	2,836	65	25	44.0	56.0	30.7	15.9	0.4
Saxony.....	1910	1,244	524	720	565	152	3	-----	42.1	57.9	45.4	12.2	0.2
Ireland.....	1911	2,133	981	1,152	725	427	-----	-----	46.0	54.0	34.0	20.0	-----
Netherlands.....	1909	1,349	651	698	(⁸)	(⁸)	(⁸)	-----	48.3	51.7	(⁸)	(⁸)	(⁸)
Norway.....	1910	1,175	² 408	713	438	272	3	54	30.4	63.6	30.1	24.3	-----
Russia (European) ⁹	1897	96,008	(¹⁰)	(¹⁰)	41,135	(¹⁰)	(¹⁰)	-----	(¹⁰)	(¹⁰)	42.6	(¹⁰)	(¹⁰)
Serbia.....	1900	1,266	299	967	618	346	3	-----	23.6	76.4	48.8	27.3	0.2
Sweden.....	1900	1,671	889	782	503	278	1	-----	53.2	46.8	30.1	16.6	0.1
Switzerland.....	1895-96	1,109	577	529	337	183	9	3	52.2	47.8	30.5	16.5	0.8
ASIA.													
Russia (Asiatic) ¹¹	1897	19,596	(¹⁰)	(¹⁰)	8,467	(¹⁰)	(¹⁰)	-----	(¹⁰)	(¹⁰)	43.2	(¹⁰)	(¹⁰)
AFRICA.													
Union of South Africa.....	1911	3,525	1,022	2,496	1,994	491	11	7	29.1	70.9	56.7	14.0	0.3
Cape of Good Hope.....	1911	1,773	569	1,202	934	259	9	2	32.1	67.9	52.7	14.6	0.5
Natal.....	1911	534	151	380	309	71	-----	3	28.4	71.6	58.2	13.4	-----
Orange Free State.....	1911	297	73	222	186	34	2	2	24.7	75.3	63.1	11.5	0.7
Transvaal.....	1911	921	229	692	565	127	-----	-----	24.9	75.1	61.3	13.8	-----
AUSTRALASIA.													
Commonwealth of Australia ¹²	1911	1,754	778	966	644	317	5	10	44.6	55.4	36.9	18.2	0.3
New South Wales.....	1911	591	251	338	227	108	3	2	42.6	57.4	38.5	18.3	0.5
Queensland.....	1911	213	103	108	79	29	-----	2	48.8	51.2	37.4	13.7	-----
South Australia.....	1911	192	73	117	79	38	-----	2	38.4	61.6	41.6	20.0	-----
Tasmania.....	1911	78	34	43	28	14	1	1	44.2	55.8	36.4	18.2	1.3
Victoria.....	1911	595	264	329	207	121	1	2	44.5	55.5	34.9	20.4	0.2
Western Australia.....	1911	85	53	31	24	7	-----	1	63.1	36.9	28.6	8.3	-----

¹ In calculating these percentages persons whose marital condition was not reported have been excluded from the total.
² Includes all blind persons reported as under 15 years of age.
³ Exclusive of Faroe Islands.
⁴ Includes blind persons legally separated.
⁵ The divorced are included with the other three classes.
⁶ Divorced blind persons are included with the widowed.
⁷ The "not reported" class includes 1,499 males reported from institutions.
⁸ The marital condition of the married, widowed, and divorced was not reported separately.
⁹ Including Poland, but exclusive of Finland.
¹⁰ The marital condition returns for the blind differentiated only the married and the not married.
¹¹ Caucasus, Siberia, and Central Asia.
¹² Exclusive of full-blooded aboriginals. Includes Northern Territory and Federal Capital Territory.

THE BLIND IN THE UNITED STATES.

TABLE 33.—BLIND POPULATION OF THE UNITED STATES AND OF FOREIGN COUNTRIES, CLASSIFIED ACCORDING TO MARITAL CONDITION—Continued.

COUNTRY.	Year.	BLIND POPULATION.											
		Female.											
		Number.							Per cent of total. ¹				
		Total.	Single.	Married, widowed, or divorced.				Marital condition not reported.	Single.	Married, widowed, or divorced.			
Total.	Married.			Wid-owed.	Di-voiced.	Total.	Married.			Wid-owed.	Di-voiced.		
AMERICA.													
Canada.....	1911	1,388	618	758	329	429	.....	12	44.9	55.1	23.9	31.2	.....
United States:													
Continental United States..	1910	24,829	² 8,470	16,272	6,105	10,019	148	37	34.2	65.8	24.7	40.5	0.6
Hawaii.....	1910	68	19	49	34	14	1	.....	27.9	72.1	50.0	20.6	1.5
Porto Rico.....	1910	876	327	515	114	397	4	34	38.8	61.2	13.5	47.1	0.5
EUROPE.													
Bulgaria.....	1905	2,912	705	2,207	868	1,321	18	.....	24.2	75.8	29.8	45.4	0.6
Denmark ³	1911	761	409	352	122	222	⁴ 8	.....	53.7	46.3	16.0	29.2	1.1
England and Wales.....	1911	13,079	5,731	7,348	2,899	4,449	(⁵)	.....	43.8	56.2	22.2	34.0	(⁶)
France.....	1901	12,453	2,704	7,137	2,480	⁶ 4,657	(⁶)	⁷ 2,612	27.5	72.5	25.2	⁶ 47.3	(⁶)
Germany.....	1900	16,516	7,659	8,831	3,054	5,700	77	26	46.4	53.6	18.5	34.6	0.5
Saxony.....	1910	1,016	511	505	199	298	8	.....	50.3	49.7	19.6	29.3	0.8
Ireland.....	1911	2,179	1,112	1,067	302	765	.....	.....	51.0	49.0	13.9	35.1	.....
Netherlands.....	1909	1,361	626	735	(⁸)	(⁸)	(⁸)	.....	46.0	54.0	(⁸)	(⁸)	(⁸)
Norway.....	1910	1,008	² 440	520	161	357	2	48	45.8	54.2	16.8	37.2	0.2
Russia (European) ⁹	1897	110,760	(¹⁰)	(¹⁰)	27,908	(¹⁰)	(¹⁰)	(¹⁰)	(¹⁰)	(¹⁰)	25.2	(¹⁰)	(¹⁰)
Serbia.....	1900	1,079	205	874	328	544	2	.....	19.0	81.0	30.4	50.4	0.2
Sweden.....	1900	1,742	1,013	729	264	462	3	.....	58.2	41.8	15.2	26.5	0.2
Switzerland.....	1895-96	998	503	493	175	308	10	2	50.5	49.5	17.6	30.9	1.0
ASIA.													
Russia (Asiatic) ¹¹	1897	20,936	(¹⁰)	(¹⁰)	5,586	(¹⁰)	(¹⁰)	.....	(¹⁰)	(¹⁰)	26.7	(¹⁰)	(¹⁰)
AFRICA.													
Union of South Africa.....	1911	3,025	708	2,314	715	1,591	8	3	23.4	76.6	23.7	52.6	0.3
Cape of Good Hope.....	1911	1,309	390	919	307	605	7	.....	29.8	70.2	23.5	46.2	0.5
Natal.....	1911	502	82	420	93	327	.....	.....	16.3	83.7	18.5	65.1	.....
Orange Free State.....	1911	219	53	163	55	108	.....	3	24.5	75.5	25.5	50.0	.....
Transvaal.....	1911	995	183	812	260	551	1	.....	18.4	81.6	26.1	55.4	0.1
AUSTRALASIA.													
Commonwealth of Australia ¹²	1911	1,388	485	894	364	529	1	9	35.2	64.8	26.4	38.4	0.1
New South Wales.....	1911	420	143	270	107	162	1	7	34.6	65.4	25.9	39.2	0.2
Queensland.....	1911	170	75	95	47	48	.....	.....	44.1	55.9	27.6	28.2	.....
South Australia.....	1911	166	53	112	40	72	.....	1	32.1	67.9	24.2	43.6	.....
Tasmania.....	1911	68	22	46	21	25	.....	.....	32.4	67.6	30.9	36.8	.....
Victoria.....	1911	507	171	335	135	200	.....	1	33.8	66.2	26.7	39.5	.....
Western Australia.....	1911	57	21	36	14	22	.....	.....	36.8	63.2	24.6	38.6	.....

¹ In calculating these percentages persons whose marital condition was not reported have been excluded from the total.

² Includes all blind persons reported as under 15 years of age.

³ Exclusive of Faroe Islands.

⁴ Includes blind persons legally separated.

⁵ The divorced are included with the other three classes.

⁶ Divorced blind persons are included with the widowed.

⁷ The "not reported" class includes 1,553 females reported from institutions.

⁸ The marital condition of the married, widowed, and divorced was not reported separately.

⁹ Including Poland, but exclusive of Finland.

¹⁰ The marital condition returns for the blind differentiated only the married and the not married.

¹¹ Caucasus, Siberia, and Central Asia.

¹² Exclusive of full-blooded aboriginals. Includes Northern Territory and Federal Capital Territory.

OCCUPATIONS.

Probably one of the most interesting and important subjects which can be considered in any statistical study of the blind population is that of their occupations, by reason of the fact that blindness is a defect which, if not totally disabling those afflicted with it from gainful employment, in the great majority of cases seriously limits their earning capacity, and confines them to a comparatively narrow range of occupations. General Table 9 (p. 51) presents statistics as to the occupations of the male and female blind population 10 years of age or over in 1910, classified according to race and nativity.

The census statistics of occupations of the blind are derived from two different sources. The special schedule of inquiry which, as already mentioned, was sent to every person reported as blind at the population census contained questions as to the occupation, if any, in which the person was engaged. The answers to these questions formed the basis for the occupation tabulation for that portion of the blind population returning this schedule, except in the comparatively few cases where the person filling out the schedule either failed to answer the questions or else obviously misunderstood them. For the remainder of the blind population it was necessary to have recourse to the occupation return on the general population schedule.

As would naturally be expected, the returns on the special schedules appear on the whole to have been fairly accurate, the most serious error apparently arising in the case of blind farmers, who frequently appear to have reported themselves as having no occupation because they were unable to go out and do actual physical work in the field. In the case of the returns on the general population schedule, however, a study of the statistics makes it apparent that the enumerators must frequently have reported the occupation followed by the blind person before he became blind. For example, in a considerable number of instances a given individual was, according to the enumerator's return, employed as a carpenter, but in practically every case where such a person returned the special schedule his answers to the inquiries regarding occupation showed clearly that this was merely his occupation before the advent of blindness, the fact being in most cases that at the time of the enumeration he had no occupation whatever. Instances of such returns do not appear to have been sufficiently numerous to introduce any material error into the statistics, but in any study of the figures in Table 9 it should be borne in mind that they overstate to a certain extent the total number of blind persons gainfully employed.

In order to bring out the relative extent to which the blind population of the United States are carrying on gainful occupations Table 34 is presented, which shows the number and percentage of the total male

and female population 10 years of age or over in each race and nativity class in 1910 who were reported as gainfully employed.

Table 34

RACE AND NATIVITY.	BLIND POPULATION 10 YEARS OF AGE OR OVER: 1910. ¹					
	Male.			Female.		
	Total.	Gainfully employed.		Total.	Gainfully employed.	
Number.		Per cent of total.	Number.		Per cent of total.	
All classes.....	31,473	7,976	25.3	24,000	1,345	5.6
White.....	23,150	6,783	25.9	19,877	1,062	5.3
Native.....	20,358	5,572	27.4	15,766	899	5.7
Foreign-born.....	5,792	1,211	20.9	4,111	163	4.0
Colored.....	5,323	1,193	22.4	4,123	283	6.9
Negro.....	4,857	1,115	23.0	3,770	265	7.0
Other colored.....	466	78	16.7	353	18	5.1

¹ Includes the small number whose age was not reported.

Of the 31,473 blind males 10 years of age or over in 1910, only 7,976, representing 25.3 per cent, or about one-fourth, were reported as being gainfully employed, as compared with a corresponding percentage of 81.3 for the total male population of that age, while of the 24,000 blind females of the same age, only 1,345, or 5.6 per cent, were reported as gainfully employed, the corresponding percentage for the general population being 23.4. These figures do not mean, however, that even as many as 9,000 blind persons were earning their own livelihood; the actual number was in all probability considerably less. Leaving out of consideration the circumstance already noted that blind persons frequently were incorrectly reported by the population enumerators as still carrying on the occupation in which they were engaged at the time when they became blind, in a large proportion, possibly the great majority, of cases where an occupation was reported on the special schedule the earnings received from it fell far short of the amount necessary to make the person reporting it self-supporting, in many instances being a mere pittance of less than \$100 a year. This is particularly the case among the female blind, a large number of the blind females for whom an occupation was reported merely doing a little knitting or fancy work and selling the articles which they made. A fuller discussion of the economic status of the blind population as regards ability for self-support will be presented in the final report, which will include statistics as to the annual earnings of the blind who were gainfully employed and returned the special schedule.

It should, however, be borne in mind in connection with Table 34 that failure on the part of the blind person to report an occupation does not necessarily indicate in any given case that by reason of his infirmity he has been disabled from gainful employment. Blindness, as already pointed out, is largely

a defect of advancing years, and a very considerable proportion of the blind population have passed the age when retirement from active employment usually occurs, so that the number of blind persons not gainfully employed does not by any means indicate the number of individuals lost to the working force of the United States by reason of blindness. This is particularly true as regards the female blind, many of whom, moreover, are housewives living in their own homes and are therefore not reported as having a gainful occupation. In the case of this latter class, of course, their blindness may serve indirectly to increase the economic burden of the family by compelling the employment of additional household help; but even this is not necessarily the case, as in many instances blind women continue to do the greater part, if not all, of their household work. The seriousness of blindness as an economic handicap should, of course, not be underemphasized; but the extent to which it operates as a handicap can not properly be measured by the number of blind persons not reporting an occupation.

Of the several race and nativity classes, the native whites show the highest percentage gainfully employed among the males (27.4) and the "Other colored" the lowest (16.7), while in the case of the females the negroes show the highest percentage (7) and the foreign-born the lowest (4). The low proportions shown for both the foreign-born whites and the "Other colored" as compared with the other two classes are due probably to the fact that these classes are made up more largely of old people, who would ordinarily

be incapacitated or have retired from active employment even if they had retained their vision.

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 blind persons for whom this return was made. The total number of such persons, as will be seen from General Table 9 (p. 51), was 4,240, representing only 9.2 per cent of the total blind population 10 years of age or over not gainfully employed; most of these were whites, only 188 being colored.

It is apparent that, so far as the blind are gainfully employed at all, they must of necessity be confined to a comparatively narrow range of occupations, representing those which can be successfully carried on without the aid of sight. In order to bring out more clearly the important occupations for the blind, Table 35 is presented, which shows the leading occupations reported for the male blind 10 years of age or over, arranged in order of numerical importance.

Table 35

MALE BLIND POPULATION 10 YEARS OF AGE OR OVER GAINFULLY EMPLOYED: 1910.¹

OCCUPATION.	Number.							Per cent distribution.					
	All classes.	White.			Colored.			All classes.	White.			Colored. ²	
		Total.	Native.	Foreign-born.	Total.	Negro.	Other colored.		Total.	Native.	Foreign-born.	Total.	Negro.
Total.....	7,976	6,783	5,572	1,211	1,193	1,115	78	100.0	100.0	100.0	100.0	100.0	100.0
Farmers (including dairy farmers).....	1,768	1,468	1,269	199	300	265	35	22.2	21.6	22.8	16.4	25.1	23.8
Broom makers.....	665	649	532	117	16	15	1	8.3	9.6	9.5	9.7	1.3	1.3
Musicians and teachers of music.....	646	559	498	61	87	84	3	8.1	8.2	8.9	5.0	7.3	7.5
Retail merchants and dealers (other than hucksters and peddlers).....	619	574	463	111	45	42	3	7.8	8.5	8.3	9.2	3.8	3.8
Grocers.....	119	106	87	19	13	12	1	1.5	1.6	1.6	1.6	1.1	1.1
Cigar and tobacco dealers.....	69	69	53	16	6	6	0	0.9	1.0	1.0	1.3	0.5	0.5
General storekeepers.....	69	63	57	6	6	6	0	0.9	0.9	1.0	0.5	0.5	0.5
Newsdealers.....	55	50	41	9	5	5	0	0.7	0.7	0.7	0.7	0.4	0.4
Dealers in music and musical instruments.....	29	28	22	6	1	1	0	0.4	0.4	0.4	0.5	0.1	0.1
All other retail merchants and dealers.....	278	258	203	55	20	18	2	3.5	3.8	3.6	4.5	1.7	1.6
Hucksters and peddlers.....	401	352	260	92	49	48	1	5.0	5.2	4.7	7.6	4.1	4.3
Piano tuners.....	349	344	313	31	5	4	1	4.4	5.1	5.6	2.6	0.4	0.4
Agricultural laborers.....	339	242	207	35	97	94	3	4.3	3.6	3.7	2.9	8.1	8.4
Laborers (not otherwise specified).....	319	213	174	39	106	100	6	4.0	3.1	3.1	3.2	8.9	9.0
Chair caners.....	242	204	158	46	38	37	1	3.0	3.0	2.8	3.8	3.2	3.3
Canvassers and agents (other than real estate and insurance).....	195	184	151	33	11	11	0	2.4	2.7	2.7	2.7	0.9	1.0
Wood sawyers and woodchoppers.....	178	67	60	7	111	109	2	2.2	1.0	1.1	0.6	9.3	9.8
Clergymen and other religious workers.....	170	116	103	13	54	52	2	2.1	1.7	1.8	1.1	4.5	4.7
Newspaper carriers and newsboys.....	98	86	70	16	12	12	0	1.2	1.3	1.3	1.3	1.0	1.1
Salesmen, saleswomen, and clerks (in stores).....	92	88	76	12	4	4	0	1.2	1.3	1.4	1.0	0.3	0.4
All others.....	1,895	1,637	1,238	399	258	238	20	23.8	21.1	22.2	32.9	21.6	21.3

¹ Includes the small number whose age was not reported.

² Per cent distribution of "Other colored" not shown, as base is less than 100.

Practically two-thirds (67.1 per cent) of the blind males reporting an occupation were employed in one of the nine leading occupations shown in the table, comprising all in which as many as 200 males were employed. Farmers are most important numerically, representing 22.2 per cent, or more than one-fifth, of the total number of blind males gainfully employed; most of these, of course, are persons who were already engaged in farming at the time when they lost their sight, and who continued to direct the operation of their farms even though prevented by their loss of vision from taking any active part in the farm work. The large number of farmers reported is, of course, due to the fact that farming is one of the most important occupations numerically in the general population, so that the number of farmers losing their sight by reason of disorders attendant upon advancing years will normally be relatively large; at the same time loss of sight, as already indicated, does not constitute so much of a handicap to persons engaged in this occupation as it does in most.

Next to farming, broom making is the most important occupation reported for blind males, the number of broom makers reported being 665, comprising 8.3 per cent, or about one-twelfth, of the total number gainfully employed. Musicians and teachers of music rank third, with 646, or 8.1 per cent of the total; this classification covers a wide scope, comprising a number of highly trained musicians, who are able to earn a substantial income by means of their profession, and also blind street singers, accordion players, and the like, whose actual profession could in many cases be more justly characterized as begging.

In any study of occupation statistics for the blind, particular interest attaches to those trades which have been found especially available as a means of employment for this class of the population and the reporting of which presumably indicates that the person reporting has received special vocational training since the loss of his vision. The nine leading occupations for the male blind, as shown in the preceding table, include three such trades, namely, broom making, piano tuning, and chair caning, a total of 1,256 blind males, or about one-sixth (15.7 per cent) of the entire number gainfully employed, being engaged in these three occupations. Figures as to the number employed in other trades of this character may be found in General Table 9 (p. 51), the most important being basket making, which gave employment to 50

blind men, mattress making, which was reported by 45, and carpet and rug making, which was reported by 30.

Reference has already been made to the fact that the occupations reported were in many instances merely nominal. This is particularly the case with respect to two of the leading occupation classes shown in Table 35, hucksters and peddlers and laborers "not otherwise specified," the former comprising very largely persons selling lead pencils, matches, shoe strings, and similar articles on the street, who might perhaps be more accurately described as beggars, and the latter persons picking up small sums now and then by the performance of odd jobs and chores. The woodchoppers and wood sawyers, who comprise mainly blind men earning a trifling amount from time to time by splitting or sawing wood for private families, also come under this general heading, as do probably the greater part of the canvassers and agents. Mention has already been made in this connection of the street musicians.

The 339 agricultural laborers shown in Table 35 probably represent mainly erroneous returns by the enumerators, as in the majority of instances the persons returned as agricultural laborers by the enumerators and filling out the special schedule of inquiry indicated that this was merely their occupation before blindness. There were, however, a number of cases, particularly in the South, where blind persons appear actually to have been employed as agricultural laborers, probably to a large extent in such forms of work as husking corn, where feeling with the hands can to a large extent take the place of sight.

Some difference exists between the respective race and nativity classes in respect to the leading occupations for the blind. In all four classes farming is the principal occupation for the male blind, while broom makers are second in both of the white classes; among the negroes, however, second place is held by wood sawyers and woodchoppers. Musicians and teachers of music rank third among the native whites, hucksters and peddlers among the foreign-born whites, and laborers "not otherwise specified" among the negroes. Vocational training for the blind losing their sight prior to or during the years of economic activity has apparently made little progress as yet among the negroes, only 37 chair caners, 15 broom makers, and 4 piano tuners being reported among the blind negro males.

Table 36 shows for the female blind statistics similar to those shown in Table 35 for the male blind.

THE BLIND IN THE UNITED STATES.

Table 36

FEMALE BLIND POPULATION 10 YEARS OF AGE OR OVER GAINFULLY EMPLOYED: 1910.¹

OCCUPATION.	Number.						Per cent distribution.						
	All classes.	White.			Colored.			All classes.	White.			Colored. ²	
		Total.	Native.	Foreign-born.	Total.	Negro.	Other colored.		Total.	Native.	Foreign-born.	Total.	Negro.
Total.....	1,345	1,062	899	163	283	265	18	100.0	100.0	100.0	100.0	100.0	100.0
Musicians and teachers of music.....	167	154	142	12	13	13	.....	12.4	14.5	15.8	7.4	4.6	4.9
Farmers (including dairy farmers).....	127	99	81	18	28	26	2	9.4	9.3	9.0	11.0	9.9	9.8
Servants and waitresses.....	120	91	69	22	29	29	.....	8.9	8.6	7.7	13.5	10.2	10.9
Laundresses (not in laundries).....	109	28	24	4	81	81	.....	8.1	2.6	2.7	2.5	28.6	30.6
Knitters (not in factories).....	102	101	75	26	1	1	.....	7.6	9.5	8.3	16.0	0.4	0.4
Agricultural laborers.....	92	35	30	5	57	57	.....	6.8	3.3	3.3	3.1	20.1	21.5
Fancy workers (not in factories).....	86	85	73	12	1	.....	1	6.4	8.0	8.1	7.4	0.4	.....
Professors, school principals, and teachers.....	56	54	46	8	2	2	.....	4.2	5.1	5.1	4.9	0.7	0.8
Chair caners.....	43	37	33	4	6	6	.....	3.2	3.5	3.7	2.5	2.1	2.3
Canvassers and agents (other than real estate and insurance).....	36	36	34	2	.....	.....	.....	2.7	3.4	3.8	1.2	.....	.....
Boarding and lodging house keepers.....	33	28	19	9	5	5	.....	2.5	2.6	2.1	5.5	1.8	1.9
Seamstresses.....	28	22	16	6	6	6	.....	2.1	2.1	1.8	3.7	2.1	2.3
Nurses.....	21	7	6	1	14	14	.....	1.6	0.7	0.7	0.6	4.9	5.3
Retail merchants and dealers (other than hucksters and peddlers).....	18	18	14	4	.....	.....	.....	1.3	1.7	1.6	2.5	.....	.....
Weavers, not otherwise specified (not in factories).....	18	16	13	3	2	.....	2	1.3	1.5	1.4	1.8	0.7	.....
Basket makers.....	17	9	7	2	8	.....	8	1.3	0.8	0.8	1.2	2.8	.....
Hucksters and peddlers.....	14	10	9	1	4	4	.....	1.0	0.9	1.0	0.6	1.4	1.5
All others.....	258	232	208	24	26	21	5	19.2	21.8	23.1	14.7	9.2	7.9

¹ Includes the small number whose age was not reported.² Per cent distribution of "Other colored" not shown, as base is less than 100.

As would be expected, the female blind show a much narrower range of occupations than do the male blind. Of the total number for whom a gainful occupation was reported (1,345), 717, or somewhat more than one-half (53.3 per cent), were employed in one of the six leading occupations. Musicians and teachers of music were most numerous, representing 12.4 per cent, or about one-eighth, of the total, farmers ranking second and servants and waitresses third; most of the latter, however, probably represent instances where the occupation prior to the occurrence of blindness was erroneously reported. In general, it is probable that to a greater extent relatively than among the males the occupation returned was either more or less nominal in character, as in the case of knitters and fancy workers, of whom 188, representing about one-seventh of the total, or the occupation pursued before the advent of blindness, as in the case of the majority of those reported as servants, laundresses, and agricultural laborers.

The several race and nativity classes show somewhat more pronounced differences with respect to the principal occupations reported for the female blind than was the case with the male. Among the native white blind women reporting a gainful occupation musicians and teachers of music were most numerous, followed by farmers, the latter comprising very largely women who lost their sight in later life. Among the foreign-born whites, knitters and servants and waitresses were most numerous, the prominence of the former occupation resulting largely from the fact that blindness among the foreign-born females is mainly associated with advanced years. Among the negroes, laundresses and agricultural laborers were most numerous, these two occupations giving employment to more than one-half (52.1 per cent) of the total for whom an occupation was reported; servants and waitresses ranked third. Of the 18 females, all Indians, included under the heading "Other colored" who were returned as gainfully employed, 8 were basket makers.