## VITAL and EIEALTEX STATISTICS DATA FROM THE NATIONAL HEALTH SURVEY

## characteristics of Visually Impaired Persons

## United States-July 1963 -June 1964


#### Abstract

Statistics on vision impairments for persons 6 years and older by degree of impairment, activity limitation, receipt of aid, restriction of social activities, employment status, sex, age, education, and income. Based on data collected in household interviews during the period July 1963-June 1964.




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IN THIS REPORT statistics are presented on the number and characteristics of persons 6 years and over with vision impairments. These statistics are based on data collected in the Health Interview Survey within the civilian, noninstitutional population of the United States. The survey shows an estimated 5,029,000 visually impaired persons, of whom 969,000 cannot read ordinary newsprint and 310,000 cannot see the features of friends and/or moving objects. In the detailed tables information derived from material collected during the period July 1963June 1964 is shown on the degree of vision impairment by sex, age, income, education, color, region, and residence.

An earlier report on selected impairments (Health Statistics, Series B, Number 35) provided information on vision impairments for the period July 1959-June 1961; however the earlier data did not provide for the detailed description of degree of vision impairment and characteristics of the impaired that can be obtained from the present estimates. Data are presented on activity limitation due to impaired vision, receipt of financial aid, receipt of "talking books," restriction of social activities, living arrangements, and employment status.

## SYMBOLS

Data not available----------------------------
Category not applicable---------------------
Quantity zero------------------------------- -
Quantity more than 0 but less than 0.05 ---- 0.0
Figure does not meet standards of reliability or precision

## CHARACTERISTICS OF

# VISUALLY IMPAIRED PERSONS 

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## INTRODUCTION

This is the first report containing detailed data on vision impairments to be released by the Health Interview Survey since "Selected Impairments" (Health Statistics, Series B, Number 35) was issued in 1962. As a consequence of the earlier report, which was based on a functional criterion of ability to read ordinary newsprint, there were a number of requests for more detailed information on vision impairments. In order to meet these requests for additional data, the sections of the survey questionnaire dealing with vision problems were expanded for the collection of more detailed information which could be used to assess functional loss of vision.

Where vision loss was indicated by responses to the household interview, a supplementary set of questions was administered. This supplement was designed to elicit information on activity limitation due to vision problems, receipt of financial aid, receipt of "talking books," restriction of social activities, types of physical aid needed, cause of visual impairments (not discussed in this report), living arrangements, and employment status. The data from the new questions on vision permit a more detailed categorization of the degree of vision impairment, as well as a better, more complete description of visually impaired persons.

## SOURCE AND LIMITATIONS OF DATA

The information contained in this publication is derived from household interviews conducted by the Health Interview Survey (HIS) in cooperation with the U.S. Bureau of the Census in a probability sample of the civilian, noninstitutional population of the United States. The sample is so designed that interviews are conducted during every week of the year. During the 52 -week period from July 1963 through June 1964, the sample was composed of approximately 42,000 households which included about 134,000 persons living at the time of the interview.

A description of the design of the survey, the methods used in estimation, and the general qualifications of data obtained from surveys is presented in Appendix I. Since the estimates in this report are based on a sample of the population rather than on the entire population, they are subject to sampling error. Therefore, particular attention should be paid to the section entitled "Reliability of Estimates." Sampling errors for most of the estimates are of relatively low magnitude. However, where an estimated number or the numerator or the denominator of a rate or percentage is small, the sampling error may be high.

Some of the estimates included in the detailed tables have levels of reliability which are below the standards usually required for publication by the Health Interview Survey. Although it is not general policy to publish figures which do not meet the usual standards of reliability, an exception is often made in the case of reports based on supplements. In order to use these data to full advantage and to show trends which are considered logical and important, it is sometimes necessary to show smaller figures. These figures are marked by asterisks to call special attention to them.

Certain terms from this report are defined in Appendix II. Because many of the terms have specialized meanings to serve the purpose of the survey, one is advised to familiarize himself with these definitions.

The questionnaire used to obtain data on vision impairments during the period July 1963-June 1964 is shown in Appendix IV. This questionnaire also included other questions, which were asked during the interview, about the health, medical care, and basic demographic characteristics of all persons in the household. Two points should be kept in mind. One question used in determining the degree of vision impairment concerns the ability to read newsprint. Although interviewers were instructed in how to apply this question to persons who were illiterate, many illiterate respondents will not volunteer that they cannot read, thus causing a bias in the reported data. As with certain other chronic conditions and impairments, there is also some emotional resistance to blindness which can lead to an underreporting of vision problems.

No attempt was made to equate blindness in the legal sense with the degree of vision impairment as determined in the interview, because a visual acuity test is basic to the legal definition of blindness: "A person shall be considered blind whose central visual acuity does not exceed $20 / 200$ in the better eye with corrective lenses or whose visual acuity, if better than 20/200, has a limit to the field of vision to such a degree that its widest diameter subtends an angle of no greater than 20 degrees." ${ }^{1}$

[^0]Because it was not feasible to administer a visual acuity test during the interview, visual acuity was not used to independently validate the classification of degree of impairment which was developed from the content of the survey questionnaire. Detailed descriptions of visual acuity can be found in "Binocular Visual Acuity of Adults" (Vital and Health Statistics, Series 11, Number 3) and in "History and Examination Findings Related to Visual Acuity Among Adults" (Series 11, Number 28). These reports are based on data gathered in the Health Examination Survey.

## Vision Impairment Classifications

Before July 1, 1964, all vision impairments reported in the survey were classified in one of the following four categories of the Classification of Impairments (X-Code):

X00-Blindness, both eyes
X01 - Blind in one eye, other eye defective but not blind
X02 - Blind in one eye, other eye good or not mentioned
X05-Impaired vision except as in X00-X02, one or both eyes
The X-Code was used in this report only to identify persons to be included in the analysis, that is, those who were visually impaired. Any person who reported an eye condition which received an X-Code (X00, X01," X02, X05) was included in the analysis, but the degree of impairment was determined from a new classification scheme, rather than the X-Code.

The earlier report on HIS data covering the period July 1959-June 1961 (Series B-Number 35) divided the portion of the X -Code covering visual impairment into two categories, "severe visual impairments" (code X00) and "other visual impairments" (X01, X02, and X05). By definition, the X00 code includes all persons who cannot read ordinary newsprint, even when wearing glasses.

In an attempt to obtain more information about economic, social, and health characteristics of visually impaired persons a contract was negotiated with Dr. Milton Graham of the American Foundation for the Blind to develop a set of supplemental questions to be asked of persons reporting vision problems. In addition, several new questions were devised which would
elicit information basic to a more detailed classification of persons with vision impairments.

All persons 6 years old and over who reported an eye condition or a vision problem during the interview were asked an additional set of questions at the end of the interview (fig. 1). These questions determined the degree of seriousness of the vision problem as well as which one, if either, of two sets of supplemental questions would be asked. Both supplements (Sections A and B) are reproduced in Appendix IV. The content of the two supplements was basically the same, but section $B$, which was administered to respondents with more severe vision problems, contained a few questions on light, color, and motion perception. The interviewers were instructed to make callbacks if necessary, to get a person to respond for himself on the supplement.

Since the same questions were not asked of all persons with vision impairment, it is important to study the design of the interview
as outlined in figure 1 in order to understand the different combinations of questions. Overall, about 30 percent of the visually impaired persons were administered a supplement. Table A shows the percent of visually impaired persons who were asked the supplement questions, by degree of vision impairment and age. Supplements were given to virtually all of the persons who could not read newsprint. ${ }^{2}$

A more detailed classification of visually impaired persons was developed, using data obtained from the questionnaire (table B , table I , columns d-1 through d-4, and question 1 of section B of the supplement; Appendix IV). This new classification is shown below.

[^1]Table $B$ of questionnaire
enough to read with glasses?
(c)

Can you see well ordinary newsprint

No $\quad \begin{gathered}\text { No } \\ \text { Any combination of yes and }\end{gathered}$
Yes
(d)

Can you see well enough to recognize the features of people you know? Yes
 Can you see objects that move, such as cars or people?

No $\longrightarrow$ Supplement, section B


Table B
No to either question $\left.\left.\left.\begin{array}{l}\text { How much } \\ \text { trouble do } \\ \text { you have } \\ \text { seeing }\end{array}\right\} \begin{array}{l}\text { Great deal } \\ \text { Some }\end{array}\right\} \begin{array}{l}\text { Supplement, } \\ \text { section } A \\ \text { Hardly any } \\ \text { None }\end{array}\right\}$ Stop $\}$

Figure 1. Screening pattern for vision supplements.

## Detailed Classification of Persons With a Vision Impairment

## Both eyes involved

Cannot read newsprint
Cannot see features, moving objects, or light
Cannot see features or moving objects; can see light
Can see one and not the other (features and moving objects)
Can see both features and moving objects Can read newsprint

Cannot see features and/or moving objects
Great deal of trouble seeing (can see features and moving objects)
Cannot see a friend across the street Can see a friend across the street
Some trouble seeing (can see features and moving objects)
Cannot see a friend across the street Can see a friend across the street
None or hardly any trouble seeing (can see features and moving objects)-no supplement needed
Cannot see a friend across the street Can see a friend across the street No vision problem reported (positive responses to all of Table B of the questionnaire)
Degree of vision problem unknown
One eye involved
Unknown if one or both eyes involved
In much of the analysis that follows, however, this classification has been collapsed into four basic categories:

1. Both eyes involved-total
2. Both eyes involved-cannot read newsprint
3. Both eyes involved-can read newsprint
4. One eye involved

Appendix III presents a discussion of the development of the new vision classification. Table I in this Appendix shows the relationship of the degree of vision impairment categories to the original X -Code.

For several reasons a number of items on the questionnaire are not analyzed separately in this report. These items, intended primarily to screen visually impaired persons or to pro-

Table A. Percent of visually impaired persons aged 6 years and over who were given the vision supplement, by age and degree of visual impairment: United States, July 1963-June 1964

| Degree of visual impairment | A11 ages | $6-64$ <br> years | 65 years and over |
| :---: | :---: | :---: | :---: |
|  | Percent |  |  |
| Total visually impaired persons ${ }^{1}$ | 29.3 | 17.7 | 42.0 |
| Both eyes involved ${ }^{2}$ Cannot read newsprint | 45.9 | 33.0 | 55.7 |
|  | 99.7 | 99.7 | 99.7 |
| Can read news- |  |  |  |
|  | 15.2 | 11.0 | 19.7 |
| One eye involved---- | 10.2 | 4.7 | 19.0 |

[^2]vide information for use in the development of the degree of impairment categories, were considered inappropriate for analytical purposes. In some instances, the number of persons responding positively to certain questions was too small to allow reliable estimates. For example, only one person in the sample reported using a dog guide and only two reported ever receiving instructions in traveling with a dog guide. Thus, these items were not included in the analyses of this report.

## Age Differences Between General Population and Visually Impaired Persons

In this report a number of comparisons are made between the total population and the visually impaired persons. It is important to keep in mind the differences in age distribution between these two groups, even when age-specific comparisons are made (table B). About 10 percent of the general population (over 6 years of age) are 65 years or older while one-half of the total number of visually impaired persons are 65 or older.

Table B. Percent distribution of total population and visually impaired persons, by age: United States, July 1963-June 1964

| Age | Visually impaired persons |  |
| :---: | :---: | :---: |
|  | Total | $\begin{gathered} \text { Adminis- } \\ \text { tered } \\ \text { vision } \\ \text { supple- } \\ \text { ment } \end{gathered}$ |
| All ages, 6 years and o | Percent distribution |  |
|  | 100.0 | 100.0 |
| 6-17 years- | 6.2 | 2.2 |
| 17-44 years | 18.1 | 8.3 |
| 45-64 years- | 27.7 | 20.8 |
| 65-74 years- | 21.6 | 22.0 |
| 75 years and over | 26.4 | 46.7 |
| 6-64 years-- | 52.0 | 31.4 |
| 65 years and over | 48.0 | 68.7 |

But there are also marked differences between the two groups for those 65 years and older; one-third of the general population over 64 is also over 74, while more than half of all the visually impaired persons over 64 are also over 74. Thus, even within age categories, the impaired persons represent an older segment of the population.

## Trend of Vision Impairment

In table $C$ the rates of visual impairments for July 1959-June 1961 are compared with those for July 1963-June 1964. The earlier time period was selected for comparison because of the availability of impairment data collected during that period (Series B-Number 35). The categories by degree of impairment shown in this table are somewhat different from those used in the other tables because an attempt was made to present comparable data for the two periods. The difference in rates between the two periods for persons with "severe vision impairments" is small, especially when the different age bases for the rates are considered. The marked increase in the estimate of total vision impairments over the earlier period is
principally reflected in the category, "other visual impairments." Although the basic questions on eye problems have remained the same, except for changes initiated in the recent supplement, there has been a gradual increase in the number of reported vision impairments. This increase may reflect, to some extent, an improvement in interviewing techniques.

## DEGREE OF VISION IMPAIRMENT

Because of the disproportionate number of visually impaired persons in some of the agesex groups, particularly in some of the categories showing the degree of impairment, it is not possible to show in a single table a meaningful description of visual impairment in various segments of the population. In table 1 the distribution by degree of impairment is shown in some detail for males and females and for two broad age groups, and in table 2 the degrees of impairment have been combined in order to show the distribution in more detail by age for each sex.

Data collected during the period July 1963June 1964 show an estimated $5,029,000$ persons with vision impairments, a prevalence rate of

Table C. Rate of visual impairments per 1,000 persons aged 6 years and over, by degree of impairment, sex, and age: United States, July 1959-June 1961 and July 1963-.June 1964

| Sex and age | All visual impairments |  | Severe visual impairments ${ }^{1}$ |  | Other visual impairments |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1959-61 ${ }^{2}$ | 1963-64 | 1959-61 ${ }^{2}$ | 1963-64 | 1959-61 ${ }^{2}$ | 1963-64 |
| Both sexes | Rate per 1,000 persons |  |  |  |  |  |
| All ages, <br> 6 years and over | 19.8 | ${ }^{3} 31.3$ | 5.6 | ${ }^{3} 6.9$ | 14.2 | ${ }^{3} 24.4$ |
|  65 years and over------------- | 11.4 108.4 | 18.2 141.9 | 2.0 43.2 | 2.3 46.0 | 9.4 65.3 | 15.9 95.9 |
| 6 years and over-..--.- | 19.1 | 29.3 | 5.0 | 5.3 | 14.2 | 24.0 |
| 6-64 years 65 years and over | 12.0 101.2 | 19.0 125.3 | 2.1 38.0 | 2.0 36.6 | 9.9 63.4 | 17.0 88.7 |
| 6 years and over--n-w--- | 20.5 | 33.1 | 6.2 | 8.4 | 14.3 | 24.7 |
|  | 10.8 | 17.4 | 2.0 | 2.6 | 8.8 | 14.9 |
| 65 years and over------------ | 114.3 | 155.2 | 47.4 | 53.6 | 66.9 | 101.6 |

[^3]31.3 per 1,000 population. For about one-half (53.0 percent) of the visually impaired, both eyes were involved and for 20 percent (an estimated 969,000 persons) both eyes were involved to the extent that ordinary newsprint could not be read. Those who reported that they had little or no visual difficulty, even though both eyes were involved, together with those who had only one eye involved, made up three-quarters of the total number of impaired persons. The estimated number of persons who have no vision or only light perception was about 132,000 persons, 0.9 per 1,000 population (table 1 ).

Females reported an overall higher rate of vision impairment than did males, particularly at the older ages. For example, the rate per 1,000 females 75 years and over was 243.7 as com-
pared with 199.8 for males. The degree of visual impairment was also greater among fernales. Of those persons with both eyes involved, 22.5 percent of the females and 15.3 percent of the males were unable to read newsprint. In addition, a greater proportion of the impaired males had only one eye involved, 54.1 percent compared with 38.1 percent for females. Data from the earlier study indicates this higher proportion of males with one eye involved may be partially due to the fact that injury was named more frequently among males as the cause of vision impairment, 26.8 percent as opposed to the 7.1 percent rate for females.

As expected, the prevalence rate showed a marked increase with age, ranging from 7.7 per 1,000 persons $6-16$ years of age to 225.0
per 1,000 persons 75 years and over, that is, almost a quarter of the persons 75 and over.

Table D presents a slight rearrangement of the data in tables 1 and 2 for persons with both eyes involved in the vision impairment. The ability to see features of friends and/or moving objects is the major variable in table $D$, with the ability to read newsprint secondary. An estimated 310,000 persons cannot see features and/or moving objects; of these, 59,000 cannot see light.

## DEMOGRAPHIC CHARACTERISTICS

## Income

The number of persons reporting vision impairment differs greatly by family income. The prevalence rate per 1,000 persons with incomes under $\$ 2,000$ was 92.3 compared with 15.9 for persons with incomes over $\$ 7,000$ (table 3). Persons under 65 years of age with incomes under $\$ 2,000$ had a prevalence rate more than four times larger than persons in the same age group with incomes over $\$ 7,000$. Persons 65 years of age and over in the lowest income category reported vision impairments at a rate almost twice that of the highest income category. In addition, persons with lower incomes reported a greater degree of impairment than those with higher incomes, particularly among persons under 65 years of age (table 4).

For example, among persons under 65 with incomes under $\$ 2,000$, 58.8 percent reported both eyes involved, while the comparable figure for persons with incomes over $\$ 7,000$ was 32.4 percent.

The higher prevalence of visual impairments among the lower income categories cannot be explained solely by the inability of persons in the lower income groups to obtain corrective lenses. Recent data from the Health Interview Survey indicate that some differences by income are found in the percentage of persons wearing corrective lenses (particularly in the lower age groups), and that a slightly higher proportion of persons in the lower income categories had obtained their last glasses over 2 years ago, However, these differences were not large enough to account for the disparity in impairment rates.

Even though the measure of income used in the Health Interview Survey is the combined family income, it is reasonable to assume that, at least in families where the major breadwinner is visually impaired, the impairment itself is probably a factor contributing to the low income.

## Education

Persons with less than 9 years of education reported considerably higher rates of vision impairment than persons with 9 years or more

Table D. Number of visually impaired persons with both eyes involved, by degree of impairment, sex, and age: United States, July 1963-June 1964

| Degree of impairment | Both sexes | Male | Female | $\begin{aligned} & 6-44 \\ & \text { years } \end{aligned}$ | 45-64 years | $\stackrel{65+}{\text { years }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number in thousands |  |  |  |  |  |
| Both eyes involved ${ }^{1}$ | 2,666 | 1,005 | 1,661 | 440 | 719 | 1,507 |
| Cannot see features and/or moving objects- | 2310 | 121 | 189 | 33 | 57 | 221 |
| Cannot read newsprint- | 287 | 108 | 179 | 30 | 50 | 207 |
| Can see features and moving objects------ | 2,346 | 878 | 1,468 | 408 | 657 | 1,280 |
| Cannot read newsprint-----------------1 | , 682 | 240 | 1,442 | 67 | 142 | 472 |
| Can read newsprint---------------------- | 1,664 | 638 | 1,026 | 341 | 515 | 808 |

[^4]of school, 76 impaired per 1,000 population as compared with about 23 per 1,000 (table 3). The same pattern is apparent when the rates for persons 6-64 years and over 64 years of age are considered. However, in both age categories the differences in rates between persons with 9-12 years and 13 or more years of school were very small. The differences in the degree of vision impairment by education and age are shown in table 5.

## Region

The prevalence rates of vision impairments for the Northeast, North Central, and West Regions were about the same, 24.6, 26.7, and 29.9 per 1,000 persons, respectively. However, the rate was considerably higher for the South, 41.8 per 1,000 persons (table 3). The same pattern is found when the data are considered by age (6-64 years and 65 years and over), although there was a greater range among regions for the older age group. There were also some differences between regions in the degree of vision impairment, with persons in the South reporting the greatest degree of impairment (table 6). Howevex, these differences are not as marked as those which were noted for the income categories.

## Color

Nonwhite persons reported a higher prevalence rate of impaired vision than did white persons, 35.4 and 30.7 per 1,000 population (table 3). These differences were consistent for persons $6-64$ years and over 65 years although the differences were slightly greater for the older group. In addition, the degree of impairment was somewhat lower in the white population (table 7).

## Residence

Persons living in standard metropolitan statistical areas (SMSA's) report the lowest rate of vision impairment in both broad age categories (table 3). Among persons under 65 years of age, farm residents had the highest prevalence rate, while the highest rate among persons 65 and over was found for nonfarm residents living
outside SMSA's. However, the degree of the impairment differed only slightly for the three residence categories (table 7).

## LIMITATION OF ACTIVITIES

Each person who reported one or more chronic conditions was asked to select a statement, appropriate for his usual activity, which best described his limitation-of-activity status. The interview respondent made the selection for children and for adults who were not present at the time of the interview. The degrees of activity limitation are as follows:

1. Unable to carry on major activity (preschool play, school, housework, or work).
2. Limited in amount or kind of major activity.
3. Not limited in major activity, but otherwise limited (church, sports, shopping, etc.).
4. Not limited in activities.

If a person indicated that he was limited in one of the first three categories, he was asked to specify which chronic condition(s) had caused his limitation.

Approximately three of five ( 58.4 percent) of the persons with vision impairments reported limitation of activity, but less than half of these persons ( 25.8 percent of all visually impaired persons) said that their impaired vision had been the cause of the limited activity. Tables 8 and 9 show the distribution of the visually impaired population by degree of activity limitation due to vision defects, according to age and sex. Tables 10 and 11 show similar data for those with vision impairment by limitation of activity due to all chronic conditions.

Impaired persons with both eyes involved who cannot read newsprint, as expected, reported the highest proportion with limitation due to impaired vision, 58.2 percent. About this same percentage was reported by persons under 65 and 65 years of age and over, even though in all other categories of degree of impairment, a higher proportion of the older persons were limited. The differences by sex were very small for the number reporting limitations
according to the degree of impairment. Women with the more severe degree of vision impairments were more likely to report limitation in kind or amount of major activity, while men with the more severe impairments reported they were unable to carry on their major activity. The proportion of persons reporting that they were limited, but not in their major activity, was relatively small, 4.0 percent for all visually impaired persons.

Tables 12-14 show the type of limitation by more detailed age categories. They also compare the number of persons with activity limitation due to any cause in the visually impaired population with that in the total population. When comparing the visually impaired with the total population, the precaution mentioned
earlier-that is, the differences in age distribution even within a given age category-should be kept in mind.

Some of the data shown in tables 8-14 has been summarized in table E to facilitate comparing the extent of chronic limitation of activity in the visually impaired population with that in the general population. Among persons in the general population with one or more chronic conditions, 27.9 percent reported limitation of activity due to a chronic ailment. The proportion of persons with limited activity in the visually impaired population was 58.4 percent, about twice that of the general population with chronic conditions. This ratio of 2 to 1 decreased with advancing age (table E).

Table E. Percent of visually impaired persons and of total population with chronic limitation of activity, by age, degree of impairment, and cause of limitation: United States, July 1963-June 1964

| Age and degree of impairment | Limitation due to vision impairment | Limitation due to any chronic condition |  |
| :---: | :---: | :---: | :---: |
|  | Visually impaired persons |  | Total population with 1+ chronic conditions |
| Age | Percent |  |  |
|  | ${ }^{1} 25.8$ | $1_{58.4}$ | 27.9 |
| 6-44 years-------------------------------------- | 14.1 | 26.8 | 15.6 |
| 45-64 years---------------------------------- | 22.6 | 53.8 | 30.5 |
| 65-74 years | 29.0 | 71.0 | 53.4 |
| 75 years and ove | 37.3 | 82.1 | 69.4 |
| 6-64 years-- | 18.7 | 41.1 | 21.2 |
| 65 years and over-------------------------1- | 33.6 | 77.1 | 59.2 |
| Degree of impairment |  |  |  |
| Both eyes involved ${ }^{2}---$---------------------- | 36.1 | 71.4 | . . |
| Cannot read newsprint--------------------- | 58.2 | 87.5 | . $\cdot$ |
| Can read newsprint---------------------- | 23.5 | 62.1 | ... |
| One eye involved----------------------------- | 14.1 | 43.4 | ... |

[^5]
## Visually Impaired Persons and Employment

The rate of employment was lower among visually impaired persons than among persons in the general population. Table F shows that 31.2 percent of all visually impaired persons 17 years and older were currently employed, as compared with 58.5 percent of the total population. However, because more than half of the impaired persons were 65 years or over, this figure is somewhat misleading. When persons 17-64 years are compared, the proportion employed was 54.2 percent among the visually impaired and 64.9 percent for the total population. For all ages 17 and over the employment rate varied from 11.4 percent for persons who cannot read newsprint to 41.6 percent for those with only one eye involved. Age is also an important factor in employment among the visually impaired. Tables $15-17$ present a more detailed breakdown of employment status.

Even though the percentage of visually impaired persons in the labor force was considerably lower than the percent of the total population 17 years and over in. the the labor force, the unemployment level of the visually impaired is almost the same as that of the total population.

## Living Arrangements

The living arrangements of visually impaired persons are compared with those of the total population in table 18. In general, a slightly higher proportion of the visually impaired persons were living alone, even within age groups. However, since the differences were small, they might be explained by the older age distribution of the impaired population, even within the two age categories shown. The differences in living arrangements by degree of vision impairment were also small.

Table F. Percent of total population and of visually impaired persons aged 17 years and over who are currently employed, by age, sex, and degree of impairment: United States, July 1963-June 1964

| Characteristic | $\begin{gathered} \text { A11 } \\ \text { ages, } \\ 17+ \\ \text { years } \end{gathered}$ | $\begin{aligned} & 17-44 \\ & \text { years } \end{aligned}$ | $\begin{aligned} & 45-64 \\ & \text { years } \end{aligned}$ | $\begin{gathered} 65+ \\ \text { years } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |
| Both sexes----------------- | Percent |  |  |  |
|  | 58.5 | 63.8 | 67.0 | 19.5 |
|  | 80.8 | 88.1. | 89.6 | 30.1 |
|  | 38.5 | 41.9 | 45.9 | 11.2 |
| Visually impaired persons |  |  |  |  |
|  | 31.2 | 59.6 | 50.6 | 9.4 |
|  | 22.5 | 44.5$* 28.8$ | 42.1 | 8.3 |
|  | 11.4 |  | 24.9 | 5.6 |
|  | $\begin{aligned} & 29.0 \\ & 41.6 \end{aligned}$ | 49.6 | 48.9 | 10.5 |
|  |  | 67.7 | 59.0 | 10.9 |
|  | $\begin{aligned} & 49.3 \\ & 16.7 \end{aligned}$ | $\begin{aligned} & 80.8 \\ & 36.3 \end{aligned}$ | $\begin{aligned} & 72.2 \\ & 30.1 \end{aligned}$ | 17.04.4 |
| Female |  |  |  |  |

[^6]
## Use of an Aid

Several questions on the vision supplement dealt with the need for aids such as a cane, a dog guide, or another person, in getting around the house or traveling outside the house. It is assumed that impaired persons who were not asked the supplement questions would not need an aid; therefore, the base for the percent of persons using an aid is the total visually impaired group. Tables $G$ and 19 show the types of persons reported using aids. Nine percent of all visually impaired persons used an aid of some kind. Of this 9 percent, about 5 percent used a cane either with or without the help of another person and about 4 percent needed the assistance of another person, but did not use a cane. The degree of vision impairment was the most important factor determining the use of an aid. Only 2 percent of the persons with one eye involved used an aid, while 36.3 percent of the persons with both eyes involved who could not read newsprint used an aid. Older persons were more likely to use an aid than younger persons, and females were more likely to use an aid than males. A higher proportion of impaired persons in low income and low educational groups used an aid, although the lowest percentage was for persons with some high school education. Only one sample respondent reported that he used a dog guide.

## "Talking Books," Braille, and Financial Aid

The yield of positive response was too low to allow detailed analysis for severalquestions on the vision supplement. However, the total estimates derived from the responses to the supplement can be shown. An estimated 50,000 persons received "talking books." Records maintained by the Library of Congress, the major source of these books, show that 78,000 persons received these books during the same period. While virtually all persons who received "talking books" had impairment involving both eyes and could not read newsprint, only 5 percent of the persons with this degree of impairment were receiving the books, even though about 29 percent reported having heard of them.

Table G. Percent of visually impaired persons aged 6 years and over who use an aid, by sex, age, and degree of impairment: United States, July 1963June 1964

| Characteristic | Both <br> sexes | Male | Female |
| :---: | :---: | :---: | :---: |
|  | Percent |  |  |
| Both eyes involved, <br> cannot read | 36.3 | 35.3 | 36.9 |
| newsprint-..-.-- <br> 65 years and over-- | 14.6 | 11.0 | 16.9 |
| Both eyes involved, <br> cannot read <br> newsprint and 65 <br> years and over--- | 40.4 | 37.6 | 41.4 |

Table $H$ shows that the level of educational attainment is highly correlated with knowledge of "talking books." Only 16 percent of the seriously impaired persons with no high school education had heard of these books as compared with 65 percent of those with educational attainment beyond high school. Persons who can read newsprint appear to have more knowledge of "talking books" than persons who cannot read newsprint; however, because of the relatively small number of persons involved, these differences are not significant.

An estimated 58,000 persons have at some time had instruction in reading braille. About two-thirds of these people could read braille, but only one-fifth of them were using their knowledge.

Using the responses from the vision supplement, it was estimated that 168,000 persons were receiving financial aid because of their vision impairment. Half of the persons who reported receiving financial aid were under 65 years and 86 percent of those reporting aid were in the impairment category "both eyes involved, cannot read newsprint." It should be kept in mind that the supplement questions were asked of only one-third of the total number of impaired persons, i.e., the most seriously impaired. Eleven percent of those who were questioned, reported receiving financial aid.

Table H. Number and percent of persons given a vision supplement who reported having heard about "talking books," by degree of impairment, age, family income, and educational level: United States, July 1963-June 1964

| Characteristic | Number in thousands | Percent |
| :---: | :---: | :---: |
| Tota ${ }^{1}-\ldots-\ldots-{ }^{\text {a }}$ | 411 | 27.8 |
| Degree of visual impairment |  |  |
| Both eyes involved ${ }^{2}$-- | 369 | 30.2 |
| Cannot read newsprint | 278 | 28.8 |
| Can read newsprint | 91 | 35.4 |
| One eye involved----- | 36 | 15.5 |
| Age |  |  |
| 6-64 years----------- | 190 | 41.0 |
| 65 years and over---- | 221 | 21.8 |
| Income |  |  |
| Under \$2,000--------- | 133 | 19.6 |
| \$2,000-\$3,999----.--- | 97 | 32.7 |
| \$4,000-\$6,999-------- | 80 | 35.7 |
| \$7,000 and over------ | 76 | 42.9 |
| Educational leve1 |  |  |
| Under 9 years-------- | 154 | 16.1 |
| 9-12 years----------- | 153 | 48.6 |
| 13 years and over---- | 72 | 64.9 |

[^7]
## Functional Limitations

Several questions on the supplement elicited information about social and recreational activities, for example, club activities, visiting friends and relatives, and reading. Since these questions were asked of only one-third of all visually impaired persons and since it would be expected that some of the impaired persons who were not asked these questions could have responded positively, the bases for the percentages shown in tables $J$ and 20 are restricted to persons to whom the supplement was administered.

One-third of the respondents to the vision supplement said that their vision problem interfered with visiting friends. Those with more than a high school education felt most restricted. The higher educational group also reported the highest proportion of interference with club activities. This, of course, could be due in part to greater activity in clubs among the more highly educated in the general population. Overall, approximately 30 percent reported some interference with club activities. This includes cutting down on club activities as well as not joining clubs because of vision problems.

About 60 percent of the persons to whom the supplement was given reported that their vision interfered with reading. These figures ranged from a lo.: of 35 percent for persons with both eyes involved who could read newsprint to 69 percent for persons with both eyes involved who could not read newsprint. While one mighr expect the latter figure to be higher, it is reasonable to assume that some people would not read even if they had useful vision.

## Age at Which Vision Impairment

First Interfered With Daily Activities
The persons who were asked about their vision problems interfering with social and recreational activities were also asked at what age their vision had first interfered with daily activities. Table 21 shows the age at which the vision impairment first interfered, by degree of impairment, sex, and age. This table gives only a rough indication since the numbers involved were too small to permit cross-classification of the variables by age. Of the impaired persons who received a supplement, 5.4 percent reported interference with daily activities since birth and another 7.8 percent before the age of 17 , while 43.7 percent reported that interference began after the age of 65. There was a slight tendency for the more severe impairments to begin later in life. For persons under 45 years, about one-third reported having visual trouble since birth and an additional one-third first noticed problems before they were 17 years old. About two-thirds of the persons 65 years and over first had interference with daily activities after they were 65 , while a negligible num-

Table J. Percent of visually impaired persons aged 6 years and over, by degree of functional limitation, degree of impairment, age, family income, educational level, and sex: United States, July 1963-June 1964

| Characteristic | Total visually impaired persons | Trouble seeing has interfered with: |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | ```Visits to friends``` | $\begin{gathered} \text { Club } \\ \text { activities } \end{gathered}$ | Reading |
| Degree of visual impairment | Percent |  |  |  |
|  | 100.0 | 33.5 | 29.9 | 59.1 |
| Both eyes involved ${ }^{2}$ $\qquad$ <br>  <br>  <br> One eye involved- | 100.0 | 34.8 | 31.6 | 62.0 |
|  | 100.0 | 37.9 | 33.0 | 69.0 |
|  | 100.0 | 23.7 | 26.1 | 35.4 |
|  | 100.0 | 27.6 | 22.0 | 46.6 |
| Age |  |  |  |  |
| 6-64 years | 100.0 | 25.5 | 24.6 | 54.0 |
|  | 100.0 | 37.3 | 32.4 | 61.3 |
| Family income |  |  |  |  |
|  | 100.0 | 33.8 | 27.9 | 01.5 |
|  | 100.0 | 34.0 | 34.7 | 60.9 |
|  | 100.0 | 30.4 | 27.2 | 55.8 |
|  | 100.0 | 32.8 | 32.8 | 52.5 |
| Educational level |  |  |  |  |
|  | 100.0 | 34.4 | 28.5 | 62.2 |
|  | 100.0 | 32.7 | 35.2 | 55.2 |
|  | 100.0 | 42.3 | 42.3 | 47.7 |
| Male |  |  |  |  |
| All ages, 6 years and over--m-m-----m.-- | 100.0 | 34.5 | 24.5 | 61.3 |
|  | 100.0 | 30.0 | 23.5 | 57.5 |
|  | 100.0 | 37.0 | 24.8 | 63.5 |
| Female |  |  |  |  |
|  | 100.0 | 33.1 | 33.3 | 57.8 |
|  | 100.0 | 22.1 | 25.1 | 51.0 |
|  | 100.0 | 37.5 | 36.4 | 60.4 |

${ }^{1}$ Includes unknown number of eyes involved. Includes unknown degree of impairment.
ber of persons 65 years and over reported trouble since birth. It is possible that respondents in this age group were unable to recall accurately when their vision had first interfered with their activity. In addition, there is some evidence of an increase in recent years in vision impairments present since birth. ${ }^{3}$

## Vision Impairments

## and Other Selected Conditions

Tables $K$ and 22-24 indicate that there is a higher prevalence of selected chronic conditions among visually impaired persons than among the total population. The most meaningful comparison between the impaired and the total population is between the age group 65 years and over because the age distributions for the

[^8]all-ages group and the under-65 group are quite different. The major differences between the impaired and the total population 65 years and over were with hearing impairments, diabetes, vascular lesions of the central nervous system, hypertensive heart disease, and general arteriosclerosis. For example, 20.6 percent of the total population 65 years and over reported hearing impairments, while 34.7 percent of the visually impaired in the same age group reported hearing impairments in addition to their vision problems. Overall, 22.9 percent of the visually impaired reported hearing impairments.

The degree of vision impairment is also a factor in the number of other chronic conditions which visually impaired persons report. Greater proportions of persons with both eyes involved reported other conditions than did persons with one eye involved, and persons who could not read newsprint reported more conditions than those who could read newsprint.

Table K. Percent of persons who reported selected chronic conditions for the total population and for visually impaired persons aged 6 years and over, by age and degree of impairment: United States, July 1963-June 1964

| Selected chronic condition | Total population |  | Visually impaired persons |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { A11 } \\ \text { ages, } \\ \text { 6+ } \\ \text { years } \end{gathered}$ | $\begin{aligned} & 65+ \\ & \text { years } \end{aligned}$ | $\begin{gathered} \text { A11 } \\ \text { ages, } \\ 6+ \\ \text { years } \end{gathered}$ | $\begin{gathered} 65+ \\ \text { years } \end{gathered}$ | Both eyes involved | One eye involved |
|  | Percent |  |  |  |  |  |
| Hearing impairments | $5.0\left\|\left\lvert\, \begin{array}{l\|l\|l\|} \\ \text { 20.6 }\end{array}\right.\right.$ |  |  |  | 28.23.2 | 16.9 |
| Goiter or thyroid trouble | 1.7 | 1.6 | 2.8 | 2.6 |  | 2.1 |
|  | 1.40.5 | 5.2 | 6.8 | 9.11.7 | 9.3 | 3.8 0.8 |
| Anemia- |  | 1.0 | 1.4 |  | 1.8 | 0.8 |
| Vascular lesions of the central nervous system------------------- | 0.6 | 3.6 | 4.2 | 7.0 | 5.512.5 | 2.6 |
| Selected heart diseases | 2.50.9 | 11.25.1 | $\begin{aligned} & 9.6 \\ & 6.1 \end{aligned}$ | 13.710.1 |  | 6.3 |
| Hypertensive heart disease---- |  |  |  |  | 8.4 | 3.6 |
| Hypertension without heart involvement | $\begin{aligned} & 4.7 \\ & 0.5 \end{aligned}$ | 16.23.6 | 14.43.4 | $\begin{array}{r} 18.9 \\ 6.3 \end{array}$ | 16.44.8 | 12.0 |
| General arteriosclerosis |  |  |  |  |  | 1.9 |

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24. Number and percent of persons in the total population and of visually impaired persons with selected chronic conditions, by sex: United States, July 1963-June


Table 1. Number, percent distribution, and rate per 1,000 visually impaired persons aged 6 years and over, by degree of impaimment, according to sex and age: United States, July 1963-June 1964
[Data are bnsed on household interviews of the civilian, noninstitutional population. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II]

| Degree of visual impairment | Total visually impaired persons | Male | Female | 6-64 | $\begin{gathered} 65 \\ \text { years } \\ \text { and } \\ \text { over } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number in thousands |  |  |  |  |
| Total, one or both eyes involved ${ }^{1}$ | 5,029 | 2,270 | 2,759 | 2,614 | 2,415 |
| Both eyes involved ${ }^{2}$ | 2,666 | 1,005 | 1,661 | 1,159 | 1,507 |
| Cannot read newsprint | 969 | 348 | 621 | 290 | 679 |
| Cannot see features, moving objects, or light--.-- | 59 | *19 | * 40 | *18 | *40 |
| Cannot see features, moving objects, can see light-- | 73 | *30 | *43 | *29 | *44 |
| Can see features or moving objects--- | 156 | 60 | 96 | *34 | 122 |
| Can see both features and moving objects----------- | 682 | 240 | 442 | 210 | 472 |
|  | 1,687 | 651 | 1,036 | 865 | 822 |
| Cannot see features and/or moving objects, or great deal of trouble seeing | 140 | 55 | 86 | 57 | 83 |
|  | 116 | *41 | 75 | *37 | 79 |
| None or hardly any trouble seeing | 1,431 | 555 | 875 | 771 | 660 |
| One eye involved-------m- | 2,281 | 1,229 | 1,052 | 1,411 | 870 |

## Percent distribution


Both eyes involved ${ }^{2}$
 Cannot see features, moving objects, or light-----Cannot see features, moving objects, can see light--


 Cannot see features and/or moving objects, or great




Total, one or both eyes involved ${ }^{1}-\ldots-0-1$
Both eyes involved ${ }^{2}$
 Cannot see features, moving objects, or light-…-Cannot see features, moving objects, can see light--


 Cannot see features and/or moving objects, or great

 None or hardly any trouble seeing


| 31.3 | 29.3 | 33.1 | 18.2 | 141.9 |
| ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |
| 16.6 | 13.0 | 19.9 | 8.1 | 88.5 |
| 6.0 | 4.5 | 7.4 | 2.0 | 39.9 |
| 0.4 | $* 0.2$ | $* 0.5$ | $* 0.1$ | $* 2.3$ |
| 0.5 | $* 0.4$ | $* 0.5$ | $* 0.2$ | $* 2.6$ |
| 1.0 | 0.8 | 1.2 | $* 0.2$ | 7.2 |
| 4.2 | 3.1 | 5.3 | 1.5 | 27.7 |
| 10.6 | 8.5 | 12.5 | 6.0 | 48.6 |
| 0.9 | 0.7 | 1.0 | 0.4 | 4.9 |
| 0.7 | $* 0.5$ | 0.9 | $* 0.3$ | 4.6 |
| 8.9 | 7.2 | 10.5 | 5.4 | 38.8 |
| 14.2 | 15.9 | 12.6 | 9.8 | 51.1 |
|  |  |  |  |  |
|  |  |  |  |  |

[^9]Table 2. Number and rate per 1,000 persons in total population, and number and percent distribution of visually impaired persons aged 6 years and over, by degree of impairment according to sex and age: United States, July 1963-June 1964
[Data are based on household interviews of the civilian, noninstitutional population. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II]


See footnotes at end of table.

Table 2. Number and rate per 1,000 persons in total population, and number and percent distribution of visually impaired persons aged 6 years and over, by degree of impairment according to sex and age: United States, July 1963-June 1964-Con.
[Data are based on household interviews of the civilian, noninstitutional population. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II]

| Sex and age | Total population | Total visually impaired persons ${ }^{1}$ | Degree of visual impairment |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Both eyes involved |  |  | One eye involved |
|  |  |  | Total ${ }^{2}$ | Cannot read news - print | Can read news- print |  |
| Both sexesAll ages, 6 years and over-m...- | $\begin{aligned} & \text { Rate per } \\ & 1,000 \\ & \text { persons } \end{aligned}$ | Percent distribution |  |  |  |  |
|  | 31.3 | 100.0 | 53.0 | 19.3 | 33.5 | 45.4 |
| 6-16 years <br> 17-44 years <br> 45-64 yeats <br>  <br> 75 years and over-------------------------1 <br>  <br>  <br> Male <br> All ages, 6 years and over------- | 7.7 | 100.0 | 41.7 | 7.6 | 34.1 | 55.4 |
|  | 13.9 | 100.0 | 34.1 | 8.0 | 25.9 | 64.6 |
|  | 37.0 | 100.0 | 51.7 | 13.9 | 37.5 | 46.7 |
|  | 97.8 | 100.0 | 54.3 | 17.3 | 36.9 | 44.5 |
|  | 225.0 | 100.0 | 69.0 | 37.0 | 31.7 | 29.1 |
|  | 18.2 | 100.0 | 44.3 | 11.1 | 33.1 | 54.0 |
|  | 141.9 | 100.0 | 62.4 | 28.1 | 34.0 | 36.0 |
|  |  |  |  |  |  |  |
|  | 29.3 | 100.0 | 44.3 | 15.3 | 28.7 | 54.1 |
| 6-16 years $\qquad$ <br> 17-44 years $\qquad$ <br>  <br>  <br>  <br>  <br>  <br> Female <br> All ages, 6 years and over------. | 8.2 | 100.0 | 36.8 | \% | $\pm 27.5$ | 61.4 |
|  | 15.4 | 100.0 | 26.7 | *5. 3 | 21.3 | 72.8 |
|  | 37.4 | 100.0 | 44.3 | 11.3 | 32.5 | 53.6 |
|  | 87.9 | 100.0 | 43.9 | 14.7 | 29.0 | 55.2 |
|  | 199.8 | 100.0 | 63.7 | 32.9 | 30.7 | 33.9 |
|  | 19.0 | 100.0 | 37.0 | 8.9 | 27.8 | 61.6 |
|  | 125.3 | 100.0 | 54.4 | 24.2 | 29.8 | 43.7 |
|  |  |  |  |  |  |  |
|  | 33.1 | 100.0 | 60.2 | 22.5 | 37.5 | 38.1 |
| 6-16 years <br> 17-44 years <br> 45-64 years <br> 65-74 years- <br>  6-64 years - <br>  | 7.1 | 100.0 | 47.9 | * | 42.3 | 47.9 |
|  | 12.7 | 100.0 | 42.1 | $\therefore 11.0$ | 31.0 | 55.6 |
|  | 36.6 | 100.0 | 58.7 | 16.3 | 42.3 | 39.9 |
|  | 105.9 | 100.0 | 61.4 | 19.1 | 42.3 | 37.4 |
|  | 243.7 | 100.0 | 72.2 | 39.5 | 32.3 | 26.2 |
|  | 17.4 | 100.0 | 51.9 | 13.3 | 38.5 | 46.2 |
|  | 155.2 | 100.0 | 67.4 | 30.5 | 36.7 | 31.1 |

${ }^{1}$ Includes unknown number of eyes involved.
${ }^{2}$ Includes unknown degree of impairment.
NOTE: For official population estimates for more general use, see Bureau of the Census reports on the civilian population of the United States, in Current Population Reports: Series P-20, P-25, and $\mathrm{P}-60$.

Table 3. Total population, and number and rate per 1,000 visually impaired persons aged 6 years and over, by age and demographic characteristics: United States, July 1963-June 1964
[Data ard hased on houwhold interwew- of the cmalinn, nonin-litutional ponulation. Tho -ursey dealgn. Leneral equalification-, and information on the reliahility


| Demographic characteristic | All ages, 6 years and over |  |  | 6-64 years |  |  | 65 years and over |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total population | Persons with visual <br> impaixments ${ }^{\prime}$ |  | Total population | Persons with visual impairments ${ }^{1}$ |  | Total. population | Persons with visual impairments ${ }^{1}$ |  |
|  |  | Number | $\begin{gathered} \text { Rate } \\ \text { per } \\ 1,000 \\ \text { persons } \end{gathered}$ |  | Number | $\begin{gathered} \text { Rate } \\ \text { per } \\ 1,000 \\ \text { persons } \end{gathered}$ |  | Number | $\begin{gathered} \text { Rate } \\ \text { per } \\ 1,000 \\ \text { persons } \end{gathered}$ |
| Total ${ }^{\text {2 }}$ | In thousands$160,824 \mid 5,029$ |  | 31.3 | In thousands$143,802\| \| 2,614$ |  | 18.2 | In thousands$17,022: 2,415$ |  | 141.9 |
| Family income |  |  |  |  |  |  |  |  |  |
| Under \$2,000- | 1.9,189 | 1,771 | 92.3 | 13,317 | 646 | 48.5 | 5,872 | 1,126 | 191.8 |
| \$2,000-\$3,999 | 25,813 | 1,043 | 40.4 | 21,344 | 504 | 23.6 | 4,469 | 540 | 120.8 |
|  | 49,276 | 993 | 20.2 | 46,345 | 682 | 14.7 | 2,930 | 311 | 106.1 |
| \$7,000 and over-------------- | 57,571 | 913 | 15.9 | 55,107 | 641 | 11.6 | 2,465 | 271 | 109.9 |
| Educational level |  |  |  |  |  |  |  |  |  |
| Under 9 years------------------ | 34,307 | 2,609 | 76.0 | 24,118 | 1,010 | 41.9 | 10,189 | 1,599 | 156.9 |
| 9-12 years | 62,231 | 1,482 | 23.8 | 57,816 | 985 | 17.0 | 4,415 | 498 | 112.8 |
| 13 years and over------------- | 21,606 | 492 | 22.8 | 19,850 | 284 | 14.3 | 1,756 | 208 | 118.5 |
| Under 17 years of age or education unknown. | 42,681 | 447 | 10.5 | 42,018 | 336 | 8.0 | 662 | 111 | 167.7 |
| Region |  |  |  |  |  |  |  |  |  |
| Northeast-------------------- | 40,686 | 1,001 | 24.6 | 36,172 | 487 | 13.5 | 4,514 | 514 | 113.9 |
| North Central---------------- | 45,677 | 1,219 | 26.7 | 40,524 | 578 | 14.3 | 5,152 | 642 | 124.6 |
| South------------------------- | 48,997 | 2,047 | 41.8 | 44,186 | 1,156 | 26.2 | 4,811 | 891 | 185.2 |
|  | 25,465 | 762 | 29.9 | 22,920 | 394 | 17.2 | 2,545 | 369 | 145.0 |
| Color |  |  |  |  |  |  |  |  |  |
| White | 142,800 | 4,391 | 30.7 | 127,100 | 2,201 | 17.3 | 15,700 | 2,190 | 139.5 |
| Nonwhite- | 18,024 | 638 | 35.4 | 16,702 | 413 | 24.7 | 1,322 | 225 | 170.2 |
| Residence |  |  |  |  |  |  |  |  |  |
| SMSA-m---m-r----m---m-------- | 102,830 | 2,706 | 26.3 | 92,860 | 1,473 | 15.9 | 9,970 | 1,232 | 123.6 |
|  | 47,709 | 1,914 | 40.1 | 41,816 | 906 | 21.7 | 5,893 | 1,007 | 170.9 |
| Farm------------------------- | 10,285 | 410 | 39.9 | 9,126 | 235 | 25.8 | 1,159 | 176 | 151.9 |

${ }^{1}$ Includes unknown number of eyes involved.
"Includes unknown income.
NOTE: For official population estimates for more general use, see Bureau of the Census reports on the civilian population of the United States, in Current Population Reports: Series P-20, P-25, and P-60.

Table 4. Number and percent distribution of visually impaired persons aged 6 years and over, by degree of impaiment according to age and family income: United States, July 1963-June 1964
[Data are hased on houschold intervieus of the civilian, noninstitutional porulation. The survey design, general qualifications, and information on the reliability of the estimates are giten in ippendix I. Nefinitions of terms are given in Ippendix II]


[^10]Table 5. Number and percent distribution of visually impaired persons aged 6 years and over, by degree of impaiment according to age and educational level of individual: United States, July 1963-June 1964
[Data are based on houschold interven - of the ewiltan, noninsututional population. The cursey deagn, general qualification-, and inforsintion on the relialithty of the extimate are given in ippendis I. Definitions of term-are sisen in ippendis II]


[^11]Table 6. Number and percent distribution of visually impaired persons aged 6 years and over, by degree of impairment according to age and region: United States, July 1963-June 1964
[Data are based on household intersios - of the cinhling, nonin-titutional ponulation. The vurvey design, general qualifications, and information on the reliability of the estimate are given in tppendia I. Definitions of terms are given in Appendix II]

| Age and region | Total visually impaired persons ${ }^{1}$ | Degree of visual impairment |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Both eyes involvéd |  |  | One eye involved |
|  |  | Total ${ }^{2}$ | $\begin{aligned} & \text { Cannot } \\ & \text { read } \\ & \text { news- } \\ & \text { print } \end{aligned}$ | Can read newsprint |  |
| All ages, 6 years and over | Number in thousands |  |  |  |  |
| All regions | 5,029 | 2,666 | 969 | 1,687 | 2,281 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  <br> North Central <br> South <br> West <br> 65 years and over <br>  <br>  <br>  <br> South <br> West <br> A11 ages, 6 years and over <br> All regions | 487 | 198 | 56 | 140 | 288 |
|  | 578 | 234 | 66 | 169 | 338 |
|  | 1,156 | 562 | 144 | 417 | 576 |
|  | 394 | 165 | $\pm 24$ | 140 | 209 |
|  |  |  |  |  |  |
|  | 2,415 | 1,507 | 679 | 822 | 870 |
|  | $\begin{aligned} & 514 \\ & 642 \\ & 891 \\ & 369 \end{aligned}$ | 315384605202 | $\begin{array}{r} 141 \\ 184 \\ 264 \\ 91 \end{array}$ | $\begin{aligned} & 173 \\ & 201 \\ & 338 \\ & 110 \end{aligned}$ | $\begin{aligned} & 196 \\ & 240 \\ & 275 \\ & 160 \end{aligned}$ |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  | Percent distribution |  |  |  |  |
|  | 100.0 | 53.0 | 19.3 | 33.5 | 45.4 |
| Northeast <br> North Central <br> South <br> West- | 100.0 | $\begin{aligned} & 51.2 \\ & 50.8 \\ & 57.0 \\ & 48.2 \end{aligned}$ | $\begin{aligned} & 19.7 \\ & 20.4 \\ & 19.9 \\ & 15.1 \end{aligned}$ | $\begin{aligned} & 31.3 \\ & 30.3 \\ & 36.9 \\ & 32.8 \end{aligned}$ | $\begin{aligned} & 48.4 \\ & 47.3 \\ & 41.6 \\ & 48.4 \end{aligned}$ |
|  | 100.0 |  |  |  |  |
|  | 100.0 |  |  |  |  |
|  | 100.0 |  |  |  |  |
|  |  |  |  |  |  |
|  | 100.0 | 44.3 | 11.1 | 33.1 | 54.0 |
|  |  |  |  |  |  |
| North Central | 100.0 | 40.5 | 11.4 | 29.2 | 58.5 |
| South-- | 100.0 | 48.6 | 12.5 | 36.1 | 49.8 |
| West | 100.0 | 41.9 | *6.1 | 35.5 | 53.0 |
| 65 years and over |  |  |  |  |  |
| All regio | 100.0 | 62.4 | 28.1 | 34.0 | 36.0 |
| Northeast <br> North Central <br> West- | 100.0 | $\begin{aligned} & 61.3 \\ & 59.8 \\ & 67.9 \\ & 54.7 \end{aligned}$ | $\begin{aligned} & 27.4 \\ & 28.7 \\ & 29.6 \\ & 24.7 \end{aligned}$ | $\begin{aligned} & 33.7 \\ & 31.3 \\ & 37.9 \\ & 29.8 \end{aligned}$ | 38.137.430.943.4 |
|  | 100.0 |  |  |  |  |
|  | 100.0 |  |  |  |  |
|  | 100.0 |  |  |  |  |

[^12]Table 7. Number and percent distribution of visually impaired persons aged 6 years and over, by degree of impairment according to age, color, and residence: United States, July 1963-June 1964
[Data are based on household interviews of the civilian, noninstitutional population. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II]


See footnotes at end of table.

Table 7. Number and percent distribution of visually impaired persons aged 6 years and over, by degree of impairment according to age, color, and residence: United States, July 1963-June 1964-Con.
[Data are based on household interviews of the civilian, noninstitutional population. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II]


[^13]Table 8. Number of visually impaired persons aged 6 years and over, by activity limitation due to impaired vision, sex, age, and degree of impaimment: United States, July 1963-June 1964

| Sex, age, and degree of visual impairment | Total visually impaired persons | $\begin{aligned} & \text { No } \\ & \text { limita- } \\ & \text { tion of } \\ & \text { activity } \end{aligned}$ | Limitation of activity |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total | Unable to carry on major activity ${ }^{1}$ | Limited in amount or kind of major activity ${ }^{1}$ | Limited, but not in major activity ${ }^{1}$ |
| BOTH SEXES <br> All ages, 6 years and over | Number in thousands |  |  |  |  |  |
| Total impaired persons ${ }^{2}$ | 5,029 | 3,731 | 1,299 | 496 | 601 | 202 |
| Both eyes involved ${ }^{3}$ <br> Cannot read newsprint <br> Can read newsprint <br> One eye involved- | 2,666 | 1,703 | 963 | 415 | 413 |  |
|  | 2,969 | 1,404 | 564 | 300 | 206 | 58 |
|  | 1,687 | 1,292 | 396 | 114 | 206 | 77 |
|  | 2,281 | 1,959 | 322 | 77 | 180 | 64 |
| 6-64 years |  |  |  |  |  |  |
| Total impaired persons ${ }^{2}$ | 2,614 | 2,126 | 488 | 114 | 255 | 1.19 |
|  | $\begin{array}{r} 1,159 \\ 290 \\ 865 \\ 1,411 \end{array}$ | 834 | 325 | 93 | 159 | 73 |
| Cannot read newsprint------------------------- |  | 131 | 160 | 69 | 66 | *24 |
| Can read newsprint-------------------------- |  | 1,255 | 166156 | $* 28$$* 20$ | 92 | 50 |
| 65 years and over <br> Total impaired persons릉. |  |  |  |  | 92 | * 44 |
|  | $1,411$ |  |  |  |  |  |
|  | 2,415 | 1,604 | 811 | 381 | 347 | 83 |
| Both eyes involved ${ }^{3}$ Cannot read newsprint <br> Can read newsprint <br> One eye involved- | $\begin{array}{r} 1,507 \\ 679 \\ 822 \\ 870 \end{array}$ | $\begin{array}{r}869 \\ 273 \\ 593 \\ 704 \\ \hline\end{array}$ | 638405230166 | $\begin{array}{r} 322 \\ 232 \\ 90 \\ 57 \end{array}$ | $\begin{array}{r} 254 \\ 139 \\ 113 \\ 89 \end{array}$ | $\begin{array}{r} 61 \\ * 34 \\ * 27 \\ * 21 \end{array}$ |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Male |  |  |  |  |  |  |
| All ages, 6 years and over |  |  |  |  |  |  |
| Total impaired persons ${ }^{2}$ | 2,270 | 1,678 | 592 | 270 | 249 | 73 |
| Both eyes involved ${ }^{3}$ Cannot read newsprint <br> Can read newsprint <br> One eye involved- | $\begin{array}{r} 1,005 \\ 348 \\ 651 \\ 1,229 \end{array}$ | 6221434751,026 | $\begin{aligned} & 383 \\ & 205 \\ & 176 \\ & 203 \end{aligned}$ | $\begin{array}{r} 220 \\ 143 \\ 77 \\ \times 49 \end{array}$ | 1345973112 | $\begin{aligned} & * 28 \\ & * \\ & * 26 \\ & * 42 \end{aligned}$ |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 6-64 years |  |  |  |  |  |  |
| Total impaired persons ${ }^{2}$ | 1,325 | 1,037 | 289 | 76 | 151 | 62 |
| Both eyes involved ${ }^{3}$ Cannot read newsprint Can read newsprint One eye involved | 490118369816 | 32640284697 | 1647986119 | $\begin{array}{r} 61 \\ * 42 \\ * 19 \\ * \end{array}$ | $\begin{array}{r} 79 \\ \times 36 \\ \times 44 \\ 68 \end{array}$ | $* 2.4$$*$$* 2.3$$* 37$ |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| $\text { Total impaired persons }{ }^{2}--$ |  |  |  |  |  |  |
|  | 945 | 641 | 304 | 195 | 98 | * |
| Both eyes involved ${ }^{3}$ Cannot read newsprint Can read newsprint One eye involved- | $\begin{aligned} & 514 \\ & 229 \\ & 282 \\ & 413 \end{aligned}$ | $\begin{aligned} & 296 \\ & 103 \\ & 191 \\ & 330 \end{aligned}$ | 2181269184 | $\begin{aligned} & 159 \\ & 101 \\ & 58 \\ & * 35 \end{aligned}$ | 55$\times 24$$\times 29$$* 43$ | $*$$*$$*$$*$ |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

See footnotes at end of table.

Table 8. Number of visually impaired persons aged 6 years and over, by activity limitation due to impaired vision, sex, age, and degree of impairment: United States, July 1963-June 1964--Con.
 of the estimates are green in tppendis I. nefinitions: of terme are given in Xryendiv II]

| Sex, age, and degree of visual impairment | Total visually impaired persons | $\begin{aligned} & \text { No } \\ & \text { limita- } \\ & \text { tion of } \\ & \text { activity } \end{aligned}$ | Limitation of activity |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total | Unable to carry on major activity ${ }^{1}$ | Limited in amount or kind of major activity ${ }^{1}$ | Limited, but not in major activity ${ }^{1}$ |
| FEMALE |  |  |  |  |  |  |
| All ages, 6 years and over |  |  |  |  |  |  |
| Total impaired persons²--------------- | 2,759 | 2,053 | 707 | 225 | 352 | 129 |
| Both eyes involved ${ }^{3}$ Cannot read newsprint Can read newsprint One eye involved | $\begin{aligned} & 1,661 \\ & 621 \\ & 1,036 \\ & 1,052 \end{aligned}$ | $\begin{array}{r} 1,081 \\ 261 \\ 817 \end{array}$ | $\begin{aligned} & 580 \\ & 359 \\ & 220 \end{aligned}$ | -195 | 279146 | 106 |
|  |  |  |  | 1571 |  | 55 |
|  |  |  |  | * 36 | 132 | 51 |
|  |  |  | 119 | *29 | 68 | *22 |
| . 6-64 years |  |  |  |  |  |  |
| Total impaired persons ${ }^{\text {a }}$ | 1,289 | 1,090 | 199 | * 39 | 104 | 56 |
| Both eyes involved ${ }^{3}$ Cannot read newsprint Can read newsprint <br> One eye involved- | $\begin{aligned} & 669 \\ & 171 \\ & 496 \\ & 595 \end{aligned}$ | 50891415558 | $\begin{array}{r} 161 \\ 80 \\ 81 \end{array}$ | $* 32$$* 27$ | 79 | *49 |
|  |  |  |  |  | *31 | $\because 22$ |
|  |  |  |  | $\stackrel{*}{*}$ | * 49 | *27 |
|  |  |  | *37 | * | *23 | * |
| 65 years and over |  |  |  |  |  |  |
| Total impaired persons ${ }^{2}-$-------------- |  | 1,471 | 963 | 507 | 187 | 248 | 73 |
| Both eyes involved ${ }^{3}$ Cannot read newsprint- <br> Can read newsprint <br> One eye involved- | 992449540457 | 573170401375 | $\begin{array}{r} 419 \\ 279 \\ 139 \\ 83 \end{array}$ | $163!$130+31+22 | 19911684$\times 45$ | 57$\times 33$$* 24$$* 15$ |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

${ }^{1}$ Major activity refers to ability to work, keep house, or engage in school or preschool activities.
${ }^{1}$ Includes unknown number of eyes involved.
${ }^{3}$ Includes unknown degree of impairment.

Table 9. Percent distribution of visually impaired persons aged 6 years and over, by activity limitation due to impaired vision according to sex, age, and degree of impaimment: United States, July $1963-J \mu n e$ 1964
[Data are based on houschold interven = of the civilian, noninstitutional population. The survey design, seneral gualifications, and information on the reliability of the ectimates are given in tprendic I. Definitions of terms are given in Appendix II]


See footnotes at end of table.

Table 9. Percent distribution of visually impaired persons aged 6 years and over, by activity limitation due to impaired vision according to sex, age, and degree of impaiment: United States, July 1963-June 1964--Con.
[Data are bnsed on household intervieus of the civilian. noninstitutional population. The surs ey de-ign, general qualifientions, and information on the reliability of the estimates are given in Appendiv I. Definitions of terms are given in tppendi 1 I]

| Sex, age, and degree of visual impairment | Total visually impaired persons | $\begin{aligned} & \text { No } \\ & \text { limita- } \\ & \text { cion of } \\ & \text { activity } \end{aligned}$ | Limitation of activity |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total | Unable to carry on major activity ${ }^{1}$ | Limited in amount or kind of major activity! | Limited, but not in major activityl |
| FEMALE |  |  |  |  |  |  |
| All ages, 6 years and over | Percent distribution |  |  |  |  |  |
| Total impaired persons2----------------- | 100.0 | 74.4 | 25.6 | 8.2 | 12.8 | 4.7 |
| Both eyes involved ${ }^{3}$--- | 100.0 | 65.1 | 34.9 | 11.7 | 16.8 | 6.4 |
| Cannot read newsprint | 100.0 | 42.0 | 57.8 | 25.3 | 23.5 | 8.9 |
| Can read newsprint- | 100.0 | 78.9 | 21.2 | *3.5 | 12.7 | 4.9 |
| One eye involved-------------------------------1- | 100.0 | 88.7 | 11.3 | *2.8 | 6.5 | *2.1 |
| 6-64 years |  |  |  |  |  |  |
| Total impaired persons²---------------- | 100.0 | 84.6 | 15.4 | *3.0 | 8.1 | 4.3 |
|  | 100.0 | 75.9 | 24.1 | *4.8 | 11.8 | *7.3 |
| Cannot read newsprint------------------------- | 100.0 | 53.2 | 46.8 | *15.8 | *18.1 | *12.9 |
|  | 100.0 | 83.7 93.8 | 16.3 $* 6.2$ | $\stackrel{*}{*}$ | $* 9.9$ $* 3.9$ | *5.4 |
| 65 years and over |  |  |  |  |  |  |
| Total impaired persons?--------------- | 100.0 | 65.5 | 34.5 | 12.7 | 16.9 | 5.0 |
| Both eyes involved ${ }^{3}-$------------------------- | 100.0 | 57.8 | 42.2 | 16.4 | 20.1 | 5.7 |
| Cannot read newsprint | 100.0 | 37.9 | 62.1 | 29.0 | 25.8 | *7.3 |
| Can read newsprint---------------------------- | 100.0 | 74.3 | 25.7 | *5.7 | 15.6 | *4.4 |
| One eye involved------------------------------ | 100.0 | 82.1 | 18.2 | *4.8 | *9.8 | *3.3 |

${ }^{1}$ Major activity refers to ability to work, keep house, or engage in school or preschool activities.
${ }^{\text {I Includes }}$ unknown number of eyes involved.
${ }^{3}$ Includes unknown degree of impairment.

Table 10. Number of visually impaired persons aged 6 years and over, by activity limitation due to any cause, sex, age, and degree of impairment: United States, July 1963-June 1964
[7ata are haved on hourhold interstes - of the cibitan, noninctitutional population. The survey design, general qualifications, and information on the reliability of the entumntes are given in tppendi, I. Definition- of terme are given in tppendix II]

| Sex, age, and degree of visual impairment | Total <br> visually <br> impaired <br> persons | $\begin{aligned} & \text { No } \\ & \text { limita- } \\ & \text { tion of } \\ & \text { activity } \end{aligned}$ | Limitation of activity |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total | Unable to carry on major activity ${ }^{1}$ | Limited in amount or kind of major activity ${ }^{1}$ | Limited, but not in major activity ${ }^{1}$ |
| BOTH SEXES |  |  |  |  |  |  |
| All ages, 6 years and over | Number in thousands |  |  |  |  |  |
| Total impaired persons²- | 5,029 | 2,092 | 2,937 | 901 | 1,529 | 507 |
| Both eyes involved Cannot read newsprint Can read newsprint One eye involved | $\begin{array}{r} 2,666 \\ 969 \\ 1,687 \\ 2,281 \end{array}$ | $\begin{array}{r} 762 \\ 121 \\ 640 \\ 1,290 \end{array}$ | $\begin{array}{r} 1,904 \\ 884 \\ 1,047 \\ 991 \end{array}$ | $\begin{aligned} & 681 \\ & 436 \\ & 242 \\ & 206 \end{aligned}$ | $\begin{aligned} & 924 \\ & 332 \\ & 587 \\ & 584 \end{aligned}$ | 29980218202 |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 6-64 years |  |  |  |  |  |  |
| Total impaired persons²----------------- | 2,614 | 1,539 | 1,075 | 202 | 595 | 278 |
| Both eyes involved ${ }^{3}$----------------------------- | $\begin{array}{r} 1,159 \\ 290 \\ 865 \\ 1,411 \end{array}$ |  | 667 | 151 | 349 |  |
| Cannot read newsprint----------------------- |  | 594351,020 | $\begin{aligned} & 234 \\ & 430 \\ & 391 \end{aligned}$ | $\begin{array}{r} 93 \\ 58 \\ \times 49 \end{array}$ | 108240234 | $* 33$132109 |
| Can read newsprint-------------------------- |  |  |  |  |  |  |
| One eye involved------------------------------1- |  |  |  |  |  |  |
| 65 years and over |  |  |  |  |  |  |
| Total impaired persons ${ }^{2}$ - | 2,415 | 553 | 1,862 | 699 | 934 | 229 |
| Both eyes involved"---------------------------- | $\begin{array}{r} 1,507 \\ 679 \\ 822 \\ 870 \end{array}$ | $\begin{array}{r} 270 \\ 65 \\ 205 \\ 270 \end{array}$ | $\begin{array}{r} 1,237 \\ 614 \\ 617 \\ 600 \end{array}$ | $\begin{aligned} & 530 \\ & 342 \\ & 185 \\ & 157 \end{aligned}$ | $\begin{aligned} & 575 \\ & 225 \\ & 347 \\ & 350 \end{aligned}$ | 132478694 |
| Cannot read newsprint---------------------- |  |  |  |  |  |  |
| Can read newsprint-------------------------- |  |  |  |  |  |  |
| One eye involved----- |  |  |  |  |  |  |
| MALE |  |  |  |  |  |  |
| All ages, 6 years and over |  |  |  |  |  |  |
| Total impaired persons"---------------- | 2,270 | 994 | 1,276 | 520 | 603 | 153 |
| Both eyes involved"------------------------- | $\begin{array}{r} 1,005 \\ 348 \\ 651 \\ 1,229 \end{array}$ | 274$* 38$ | 731 | 366 | 293 | 72 |
| Cannot read newsprint------------------------ |  |  | 310 | 210 | 93 | * |
| Can read newsprint------------------------- |  | 236 | 415523 | 155142 | 197 | 6377 |
| One eye involved-------------------------------1- |  | 706 |  |  | 304 |  |
| 6-64 years | 1,325 |  |  |  |  |  |
| Total impaired persons ${ }^{\text {² }}$ - |  | 799 | 527 | 133 | 287 | 108 |
| Both eyes involved" ${ }^{\text {- }}$ | $\begin{aligned} & 490 \\ & 118 \\ & 369 \\ & 816 \end{aligned}$ | 202 | 289 | 98 | 142 | *49 |
| Cannot read newsprin |  | *19 | 997 | 52 | * 44 | * |
| Can read newsprint--------------------------1- |  | 182 | 187 | \% 46 | 97 | *45 |
|  |  | 589 | 227 | 32 | 139 | 56 |
| 65 years and over |  |  |  |  |  |  |
| Total impaired persons ${ }^{2}$ - | 945 | 196 | 749 | 387 | 316 | *45 |
| Both eyes involved ${ }^{\text {3 }}$ - | $\begin{aligned} & 514 \\ & 229 \\ & 282 \end{aligned}$ | 72$* 18$ | 442 <br> 211 <br> 20 | 269 <br> 158 |  |  |
| Cannot read newsprint--------------------- |  |  |  |  | *49 | * |
| Can read newsprint--------------------------- |  | + 54 | $\begin{aligned} & 221 \\ & 296 \\ & 296 \end{aligned}$ | 1109 | 100165 | * ${ }^{21}$ |
| One eye involved- | $4131$ |  |  |  |  |  |

See footnotes at end of table.

Table 10. Number of visually impaired persons aged 6 years and over, by activity limitation due to any cause, sex, age, and degree of impairment: United States, July 1963-June 1964-Con.
LData are hased on household interviens of the civilian, noninstitutional population. The survey design. gencral dualifications, and information or the relialylits of the estimates are giomin topendiv I. Definition: of terms are given in Appendix II]


[^14]Table ll. Percent distribution of visually impaired persons aged 6 years and over, by activity limitation due to any cause according to sex, age, and degree of impairment: United States, July 1963-June 1964
[Data are binsed on houschold intervenc of the civilian, nominstitutional population. The surves design, general qualifications, and intormation on the reliability of the estimates are grien in tppendix I. Definitions of terms are given in ippendix IJ]

| Sex, age, and degree of visual impairment | Total <br> visually <br> impaired <br> persons | $\begin{aligned} & \text { No } \\ & \text { limita- } \\ & \text { tion of } \\ & \text { activity } \end{aligned}$ | Limitation of activity |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total | Unable to carry on major activity ${ }^{1}$ | Limited in amount or kind of major activity ${ }^{1}$ | Limited, but not in major activity ${ }^{1}$ |
| BOTH SEXES |  |  |  |  |  |  |
| All ages, 6 years and over | Percent distribution |  |  |  |  |  |
| Total impaired persons ${ }^{2}$ | 100.0 | 41.6 | 58.4 | 17.9 | 30.4 | 10.1 |
| Both eyes involved ${ }^{3}$ - | 100.0 | 28.6 | 71.4 | 25.5 | 34.7 |  |
| Cannot read newsprint---------------------------- | 100.0 | 12.5 | 87.5 | 45.0 | 34.3 | 8.3 |
|  | 100.0 | 37.9 | 62.1 | 14.3 | 34.8 | 12.9 |
| One eye involved------------------------------- | 100.0 | 56.6 | 43.4 | 9.0 | 25.6 | 8.9 |
| 6-64 years |  |  |  |  |  |  |
| Total impaired persons ${ }^{2}$----------------- | 100.0 | 58.9 | 41.1 | 7.7 | 22.8 | 10.6 |
| Both eyes involved ${ }^{3}$ Cannot read newsprint Can read newsprint <br>  | 100.0 | $\begin{aligned} & 42.5 \\ & 19.3 \\ & 50.3 \\ & 72.3 \end{aligned}$ | $\begin{aligned} & 57.5 \\ & 80.7 \\ & 49.7 \\ & 27.7 \end{aligned}$ | 13.0 | 30.1 | 14.4$\times 11.4$15.3 |
|  | 100.0 |  |  | 32.1 | 37.2 |  |
|  | 100.0 |  |  | 6.7 | 27.7 |  |
|  | 100.0 |  |  | *3.5 | 16.6 | 7.7 |
| 65 years and over |  |  |  |  |  |  |
|  | 100.0 | 22.9 | 77.1 | 28.9 | 38.7 | 9.5 |
| Both eyes involved ${ }^{3}$ Cannot read newsprint <br> Can read newsprint <br> One eye involved | 100.0 | 17.9 | 82.1 | 35.2 | 38.2 | 8.8 |
|  | 100.0 | 9.6 | 90.4 | 50.4 | 33.1 | 6.9 |
|  | 100.0 | 24.9 | 75.1 | 22.5 | 42.2 |  |
|  | 100.0 | 31.0 | 69.0 | 18.0 | 40.2 | 10.8 |
| MALE |  |  |  |  |  |  |
| All ages, 6 years and over |  |  |  |  |  |  |
| Total impaired persons*---------------- | 100.0 | 43.8 | 56.2 | 22.9 | 26.6 | 6.7 |
| Both eyes involved ${ }^{3}$ Cannot read newsprint <br> Can read newsprint <br> One eye involved | 100.0 | 27.3 | 72.7 | 36.4 | 29.2 | 7.2 |
|  | 100.0 | 10.9 | 89.1 | 60.3 | 26.7 |  |
|  | 100.0 | 36.3 | 63.7 | 23.8 | 30.3 |  |
|  | 100.0 | 57.4 | 42.6 | 11.6 | 24.7 | 6.3 |
| 6-64 years |  |  |  |  |  |  |
| Total impaired persons²----------------- | 100.0 | 60.3 | 39.8 | 10.0 | 21.7 | 8.2 |
| Both eyes involved Cannot read newsprint Gan read newsprint One eye involved | 100.0 | 41.2 | 59.0 | 20.0 | 29.0 | *10.0 |
|  | 100.0 | *16.1 | 83.9 | 44.1 | * 37.3 |  |
|  | 100.0 | 49.3 | 50.7 | *12.5 | 26.3 | *12.2 |
|  | 100.0 | 72.2 | 27.8 | 3.9 | 17.0 | 6.9 |
| 65 years and over |  |  |  |  |  |  |
| Total impaired persons ${ }^{2}-$--------------- | 100.0 | 20.7 | 79.3 | 41.0 | 33.4 | *4.8 |
|  | 100.0100.0 | $\begin{aligned} & 14.0 \\ & 27.9 \\ & 19.1 \\ & 28.6 \end{aligned}$ | $\begin{aligned} & 86.0 \\ & 92.1 \\ & 80.9 \\ & 71.7 \end{aligned}$ | $\begin{aligned} & 52.3 \\ & 69.0 \\ & 38.7 \\ & 26.6 \end{aligned}$ | $\begin{array}{r} 29.4 \\ \times 21.4 \\ 35.5 \\ 40.0 \end{array}$ | $\begin{aligned} & * 4.5 \\ & * \\ & * 6.7 \\ & * 5.1 \end{aligned}$ |
| Cannot read newspri |  |  |  |  |  |  |
| Can read newsprint | 100.0 |  |  |  |  |  |
| One eye involved-------------------------------1\| | 100.0 |  |  |  |  |  |

See footnotes at end of table.

Table 11. Percent distribution of visually impaired persons aged 5 years and over, by activity limitation due to any cause according to sex, age, and degree of impaiment: United States, July 1963-June 1964-Con.
[Data are based on household intersiews of the civilian, noninstitutional population. The survey design, general qualifications, and information on the reliahility of the estimates are given in Ippendiv I Defintions of terms are riven in Lppendix II]

| Sex, age, and degree of visual impairment | Total visually impaired persons | ```No limita- tion of activity``` | Limitation of activity |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total | Unable to carry on major activity ${ }^{I}$ | Limited in amount or kind of major activity ${ }^{1}$ | Limited, but not in major activity |
| FEMALE |  |  |  |  |  |  |
| All agès, 6 years and over | Percent distribution |  |  |  |  |  |
|  | 100.0 | 39.8 | 60.2 | 13.8 | 33.6 | 12.8 |
| Both eyes involved ${ }^{3}$ - | 100.0 | 29.4 | 70.6 | 19.0 | 38.0 | 13.7 |
| Cannot read newsprin | 100.0 | 13.4 | 86.6 | 36.4 | 38.5 | 11.8 |
| Can read newsprint- | 100.0 | 39.0 | 61.0 | 8.5 | 37.6 | 14.9 |
|  | 100.0 | 55.5 | 44.5 | 6.1 | 26.5 | 11.9 |
| $\underline{6-64 ~ y e a r s}$ |  |  |  |  |  |  |
| Total impaired persons ${ }^{2}$---------------- | 100.0 | 57.4 | 42.6 | 5.4 | 23.9 | 13.3 |
| Both eyes involved ${ }^{3}$ | 100.0 | 43.3 | 56.5 | 8.1 | 30.9 | 17.6 |
|  | 100.0 | 21.1 | 78.9 | $\times 24.6$ | 36.8 | *17.5 |
|  | 100.0 | 51.0 | 49.0 | * | 28.8 | 17.7 |
|  | 100.0 | 72.4 | 27.6 | *2.7 | 16.0 | 8.9 |
| 65 years and over |  |  |  |  |  |  |
| Total impaired persons ${ }^{2}$ | 100.0 | 24.3 | 75.7 | 21.1 | 42.0 | 12.5 |
| Both eyes involved ${ }^{3}$ | 100.0 | 20.0 | 80.0 | 26.3 | 42.7 | 11.0 |
|  | 100.0 | 10.5 | 89.8 | 41.0 | 39.2 | *9.6 |
| Can read newsprint- | 100.0 | 28.0 | 72.0 | 14.1 | 45.7 | 12.4 |
|  | 100.0 | 33.5 | 66.5 | *10.3 | 40.3 | 16.0 |

${ }^{1}$ Major activity refers to ability to work, keep house, or engage in school or preschool activities.
${ }^{2}$ IncIudes unknown number of eyes involved.
${ }^{3}$ Includes unknown degree of impairment.

Table 12. Number and percent distribution of visually impaired persons aged 6 years and over, by activity limitation due to impaired vision according to sex and age: United States, July 1963-June 1964
[Data are based on housphold interwios of the civilan, noninstitutional population. The survey design, general qualifications, and information on the reliability of the entimates: are given in ippendix I. Defintions of terms are given in tppendix II]

| Sex and age | Total <br> visually <br> impaired <br> persons | $\begin{aligned} & \text { No } \\ & \text { limita- } \\ & \text { tion of } \\ & \text { activity } \end{aligned}$ | Limitation of activity |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total | Unable to carry on major activity ${ }^{1}$ | Limited in amount or kind of major activity ${ }^{1}$ | Limited but not in major activity ${ }^{1}$ |
| Both sexes | Number in thousands |  |  |  |  |  |
|  <br>  <br> 45-64 years <br>  <br> 75 years and over- <br>  <br> 65 years and over <br> Male <br>  | 5,029 |  | 1,299 | 496 | 601 | 202 |
|  | 1,224 | 1,051 | 173 | *26 | 89 | 58 |
|  | 1,391 | 1,076 | 315 | 88 | 166 | 61 |
|  | 1,087 | 1,772 | 315 | 112 | 163 | *41 |
|  | 1,328 | 832 | 496 | 270 | 184 | *42 |
|  | 2,614 | 2,126 | 488 | 114 | 255 | 119 |
|  | 2,415 | 1,604 | 811 | 381 | 347 | 83 |
|  |  |  |  |  |  |  |
|  | 2,270 | 1,678 | 592 | 270 | 249 | 73 |
|  | 647 | 539 | 108 | * | 59 | *37 |
|  | 679 | 498 | 181 | 64 | 91 | *26 |
| 75 years and over | 502 | 336 | 166 | 66 129 | 62 $\times 36$ | * |
| $6-64$ years-...... | 1,325 | 1,037 | 289 | 76 | 151 | 62 |
| 65 years and over | 945 | 1,641 | 304 | 195 | 98 | $\stackrel{*}{*}$ |
| Female |  |  |  |  |  |  |
| All ages, 6 years and over- | 2,759 | 2,053 | 707 | 225 | 352 | 129 |
|  | 577 | 512 | 65 | * | *30 | *21 |
| 45-64 years- | 712 | 578 | 134 | *25 | 74 | *35 |
| 65-74 years-- | 645 | 467 | 178 | *45 | 101 | *32 |
| 75 years and over | 826 | 496 | 330 | 141 | 148 | * 41 |
| $6-64$ years-- | 1,289 | 1,090 | 199 | *39 | 104 | 56 |
| 65 years and ove | 1,471 | 1,963 | 507 | 187 | 248 | 73 |
| Both sexes | Percent distribution |  |  |  |  |  |
| All ages, 6 years and over------ | 100.0 | 74.2 | 25.8 | 9.9 | 12.0 | 4.0 |
| 6-44 years- | 100.0 | 85.9 | 14.1 | *2.1 | 7.3 | 4.7 |
| 45-64 years | 100.0 | 77.4 | 22.6 | 6.3 | 11.9 | 4.4 |
| 75 years and ove | .100 .0 | 71.0 | 29.0 37 | 10.3 | 15.0 | *3.8 |
| 6-64 years.- | 100.0 | 82.7 | 18.7 | 10.3 4.4 | 13.9 9.8 | $* 3.2$ 4.6 |
| 65 years and over | 100.0 | 66.4 | 33.6 | 15.8 | 14.4 | 4.6 3.4 |
| Male |  |  |  |  |  |  |
| All ages, 6 years and over------------- | 100.0 | 73.9 | 26.1 | 11.9 | 11.0 | 3.2 |
| 6-44 years. | 100.0 | 83.3 | 16.7 | * | 9.1 | *5.7 |
| 45-64 years - | 100.0 | 73.3 | 26.7 | 9.4 | 13.4 | *3.8 |
| 65-74 years- | 100.0 | 69.0 | 31.0 | 14.9 | 14.0 | * |
| 75 years and ove | 100.0 | 66.9 | 33.1 | 25.7 | *7.2 | * |
| 6-64 years---- | 100.0 | 78.3 | 21.8 | 5.7 | 11.4 | 4.7 |
| 65 years and over--------------------------1- | 100.0 | 67.8 | 32.2 | 20.6 | 10.4 | * |
| Female |  |  |  |  |  |  |
|  | 100.0 | 74.4 | 25.6 | 8.2 | 12.8 | 4.7 |
| 6-44 years-- | 100.0 | 88.7 | 11.3 | * | *5.2 | *3.6 |
|  | 100.0 | 81.2 | 18.8 | *3.5 | 10.4 | *4.9 |
| 65-74 years- | 100.0 | 72.4 | 27.6 | *7.0 | 15.7 | *5.0 |
| 75 years and ove | 100.0 | 60.0 | 40.0 | 17.1 | 17.9 | *5.0 |
| 6-64 years-- | 100.0 | 84.6 | 15.4 | *3.0 | 8.1 | 4.3 |
|  | 100.0 | 65.5 | 34.5 | 12.7 | 16.9. | 5.0 |

[^15]Table 13. Number and percent distribution of visually impaired persons aged 6 years and over, by activity limitation due to any cause according to sex and age: United States, July 1963-June 1964
[Data are based on household intersiens of the civilian, noninstitutional population. The surses de-ign, general qualifications, and information on the reliability of the estimates are given in tppendix I. Defintions of terms are given in tppendix II]

| Sex and age | Total visually impaired persons | $\begin{aligned} & \text { No } \\ & \text { limita- } \\ & \text { tion of } \\ & \text { activity } \end{aligned}$ | Limitation of activity |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total | Unable to carry on major activityl | Limited in amount or kind of major activity ${ }^{1}$ | Limited, but not in major activity ${ }^{1}$ |
| Both sexes | Number in thousands |  |  |  |  |  |
| All ages, 6 years and over------------- | 5,029 | 2,092 | 2,937 | 901 | 1,529 | 507 |
|  | 1,224 | 896 | 328 | *42 | 164 | 122 |
| 45-64 years | 1,391 | 643 | 748 | 161 | 431 | 156 |
| 65-74 years | 1,087 | 315 | 772 | 202 | 442 | 128 |
|  | 1,328 | 239 | 1,090 | 497 | 492 | 100 |
|  | 2,614 | 1,539 | 1,075 | 202 | 595 | 278 |
| 65 years and over---------------------------- | 2,415 | 553 | 1,862 | 699 | 934 | 229 |
| Male |  |  |  |  |  |  |
| All ages, 6 years and over------------ | 2,270 | 994 | 1,276 | 520 | 603 | 153 |
| 6-44 years- | 647 | 480 | 167 | *21 | 91 |  |
| 45-64 years | 679 | 319 | 360 | 112 | 196 | 53 |
| 65-74 years---- | 442 | 117 | 325 | 123 | 174 | *28 |
| 75 years and over | 502 | 78 | 424 | 264 | 142 | *17 |
| 6-64 years------ | 1,325 | 799 | 527 | 133 | 287 | 108 |
|  |  | 196 | 749 | 387 | 316 | *45 |
| Female |  |  |  |  |  |  |
| All ages, 6 years and over------------- | 2,759 | 1,098 | 1,661 | 381 | 926 | 354 |
|  | 577 | 416 | 161 | *21 | 73 | 67 |
|  | 712 | 324 | 388 | 449 | 236 | 103 |
|  | 645 | 198 | 447 | 79 | 268 | 101 |
|  | 826 | 160 | 666 | 233 | 350 | 83 |
| 6-64 years---------------------------------- | 1,289 | 740 | 549 | 70 | 308 | 171 |
| 65 years and over--------------------------- | 1,471 | 358 | 1,113 | 311 | 618 | 184 |
| Both sexes | Percent distribution |  |  |  |  |  |
| All ages, 6 years and over------------- | 100.0 | 41.6 | 58.4 | 17.9 | 30.4 | 10.1 |
|  | 100.0 | 73.2 | 26.8 | 3.4 | 13.4 | 10.0 |
|  | 100.0 | 46.2 | 53.8 | 11.6 | 31.0 | 11.2 |
|  | 100.0 | 29.0 | 71.0 | 18.6 | 40.7 | 11.8 |
|  | 100.0 | 18.0 | 82.1 | 37.4 | 37.0 | 7.5 |
|  | 100.0 | 58.9 | 41.1 | 7.7 | 22.8 | 10.6 |
| 65 years and over | 100.0 | 22.9 | 77.1 | 28.9 | 38.7 | 9.5 |
| Male |  |  |  |  |  |  |
| All ages, 6 years and over------------ | 100.0 | 43.8 | 56.2 | 22.9 | 26.6 | 6.7 |
| 6-44 years------------------------------------- | 100.0 | 74.2 | 25.8 | *3.2 | 14.1 | 8.5 |
| 45-64 years- | 100.0 | 47.0 | 53.0 | 16.5 | 28.9 | 7.8 |
| 65-74 years---- | 100.0 | 26.5 | 73.5 | 27.8 | 39.4 | *6.3 |
| 75 years and over | 100.0 | 15.5 | 84.5 | 52.6 | 28.3 | *3.4 |
|  | 100.0 100.0 | 60.3 20.7 | 39.8 79.3 | 10.0 41.0 | 21.7 33.4 | 8.2 $\times 4.8$ |
| Female |  |  |  |  |  |  |
| All ages, 6 years and over------------- | 100.0 | 39.8 | 60.2 | 13.8 | 33.6 | 12.8 |
| 6-44 years---------------------------------------- | 100.0 | 72.1 | 27.9 | *3.6 | 12.7 | 11.6 |
| 45-64 years- | 100.0 | 45.5 | 54.5 | *6.9 | 33.1 | 14.5 |
| 65-74 years- | 100.0 | 30.7 | 69.3 | 12.2 | 41.6 | 15.7 |
| 75 years and over | 100.0 | 19.4 | 80.6 | 28.2 | 42.4 | 10.0 |
| 6-64 years-- | 100.0 | 57.4 | 42.6 | 5.4 | 23.9 | 13.3 |
| 65 years and over-------------------------- | 100.0 | 24.3 | 75.7 | 21.1 | 42.0 | 12.5 |

${ }^{1}$ Major activity refers to ability to work, keep house, or engage in school or preschool activities.

Table 14. Number and percent distribution of total population aged 6 years and over with 1 or more chronic conditions, by activity limitation due to any cause according to sex and age: United States, July 1963-June 1964
[Datn are hased on household intersies-of the covilan, nonin-thtutuonal population. The survey design, peneral qualafications, and information on the reliability of the o-limate- are gisen in tppendix I. Definition of terms are given in Appendix Ii]

| Sex and age | Total population, 6+ years with 1+ chronic conditions | $\begin{aligned} & \text { No } \\ & \text { limita- } \\ & \text { tion of } \\ & \text { activity } \end{aligned}$ | Limitation of activity |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total | Unable to carry on major activity ${ }^{1}$ | Limited in amount or kind of major activity ${ }^{1}$ | Limited, but not in major activity ${ }^{1}$ |
| Both sexes | Number in thousands |  |  |  |  |  |
| All ages, 6 years and over--------n-n- <br>  <br> 45-64 years <br> 65-74 years <br> 75 years and <br>  <br> 65 years and over <br> Male <br> All ages, 6 years and over-------.----- | 79,910 | $57,652$ | 22,257 | 4,109 | 11,854 | 6,294 |
|  | $\begin{array}{r} 41,309 \\ 24,596 \\ 8,854 \\ 5,150 \\ 65,905 \\ 14,004 \end{array}$ | $\begin{array}{r} 34,848 \\ 17,097 \\ 4,128 \\ 1,579 \\ 51,945 \\ 5,707 \end{array}$ | $\begin{array}{r} 6,461 \\ 7,499 \\ 4,726 \\ 3,572 \\ 13,960 \\ 8,297 \end{array}$ | $\begin{array}{r} 521 \\ 1,105 \\ 1,052 \\ 1,431 \\ 1,626 \\ 2,483 \end{array}$ | $\begin{aligned} & 3,067 \\ & 4,258 \\ & 2,792 \\ & 1,737 \\ & 7,325 \\ & 4,529 \end{aligned}$ | $\begin{array}{r} 2,874 \\ 2,135 \\ 882 \\ 404 \\ 5,009 \\ 1,285 \end{array}$ |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | 36,813 | 26,173 | 10,640 | 2,735 | 5,447 | 2,458 |
|  <br> 45-64 years <br> 55-74 years $\qquad$ <br> 75 years and over $\qquad$ <br> 6-64 years- <br> 65 years and over <br> Female <br> All ages, 6 years and over------------ | $\begin{array}{r} 19,289 \\ 11,474 \\ 3,908 \\ 2,141 \\ 30,763 \\ 6,049 \end{array}$ | $\begin{array}{r} 16,263 \\ 7,851 \\ 1,508 \\ 550 \\ 24,114 \\ 2,058 \end{array}$ | $\begin{aligned} & 3,026 \\ & 3,623 \\ & 2,400 \\ & 1,591 \\ & 6,649 \\ & 3,991 \end{aligned}$ | $\begin{array}{r}299 \\ 838 \\ 775 \\ 823 \\ 1,137 \\ 1,598 \\ \hline\end{array}$ | 1,471 |  |
|  |  |  |  |  | 1,962 |  |
|  |  |  |  |  | $\begin{array}{rr}1,349 & 276 \\ 665\end{array}$ |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  | 3,433 | $\begin{array}{r}\text { 2 } \\ 2,079 \\ \hline 379\end{array}$ |
|  |  |  |  |  | 2,014 |  |
|  |  |  |  |  |  |  |
|  | 43,097 | 31,480 | 11,617 | 1,374 | 6,407 | 3,836 |
| 6-44 years | $\begin{array}{r} 22,020 \\ 13,122 \\ 4,946 \\ 3,009 \\ 35,142 \\ 7,955 \end{array}$ | 18,5859,2462,6201,02927,8313,649 | $\begin{aligned} & 3,435 \\ & 3,876 \\ & 2,326 \\ & 1,980 \\ & 7,311 \\ & 4,306 \end{aligned}$ | $\begin{aligned} & 222 \\ & 267 \\ & 277 \\ & 608 \\ & 489 \\ & 885 \end{aligned}$ | $\begin{aligned} & 1,596 \\ & 2,296 \\ & 1,442 \\ & 1,442 \\ & 3,072 \\ & 2,892 \\ & 2,515 \end{aligned}$ | 1,6171,3136063002,930$\mathbf{9 0 6}$ |
| $45-64$ $65-74$ years |  |  |  |  |  |  |
| 75 years and ove |  |  |  |  |  |  |
| 6-64 years-- |  |  |  |  |  |  |
| 65 years and ove |  |  |  |  |  |  |
| Both sexes | Percent distribution |  |  |  |  |  |
|  | 100.0 | 72.1 | 27.9 | 5.1 | 14.8 | 7.9 |
|  | 100.0100.0 | 84.469.5 | 15.6 <br> 30.5 <br> 6. | 1.34.5 | 7.417.3 | 7.08.7 |
| 45-64 years |  |  |  |  |  |  |
| 65-74 years- | 100.0100.0 | 46.6 | 53.4 | 11.9 | 31.5 | 10.0 |
| 75 years and ove |  | 30.7 | 69.4 | 27.8 | 33.7 | 7.8 |
| 6564 years-- | 100.0100.0 | 78.840.8 | 21.259.2 | 17.7 | $\frac{11.1}{32.3}$ | 7.69.2 |
| 65 years and over |  |  |  |  |  |  |
| Male |  |  |  |  |  |  |
| All ages, 6 years and over- | 100.0 | 71.1 | 28.9 | 7.4 | 14.8 | 6.7 |
| 6-44 ye | 100.0 | 84.3 | 15.7 | 1.6 | 7.6 | 6.5 |
| 45-64 years | 100.0100.0 | 68.4 | 31.6 | 7.3 | 17.1 | 7.2 |
| 65-74 years- |  | 38.625.7 | 61.4 | 19.8 | 34.5 |  |
| 75 years and ove | $\begin{aligned} & 100.0 \\ & 100.0 \end{aligned}$ |  |  | 38.4 | 31.1 | 4.96.8 |
| 6564 years and ove | 100.0100.0 | 78.434.0 | 21.666.0 | 26.4 | 33.3 |  |
| 65 years and over------------------------- |  |  |  |  |  | 6.3 |
| Female |  |  |  |  |  |  |
| All ages, 6 years and over----------- | 100.0 | 73.0 | 27.0 | 3.2 | 14.9 | 8.9 |
| 6-44 years | $\begin{aligned} & 100.0 \\ & 100.0 \\ & 100.0 \\ & 100.0 \\ & 100.0 \\ & 100.0 \\ & \hline \end{aligned}$ | 84.470.553.034.279.245.9 | $\begin{aligned} & 15.6 \\ & 29.5 \\ & 47.0 \\ & 65.8 \\ & 20.8 \\ & 54.1 \\ & \hline \end{aligned}$ | 1.0 <br> 2.0 <br> 5.6 <br> 20.2 <br> 1.4 <br> 11.1 | $\begin{array}{r}7.2 \\ 17.5 \\ 29.2 \\ 35.6 \\ 11.1 \\ 31.6 \\ \hline\end{array}$ | 7.3 <br> 10.0 <br> 12.3 <br> 10.0 <br> 8.3 <br> 11.4 |
| 45-64 years |  |  |  |  |  |  |
| 65-74 years |  |  |  |  |  |  |
| 75 years and ove |  |  |  |  |  |  |
| 6-64 years |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

[^16]Table 15. Number and percent of visually impaired persons aged 17 years and over, by labor force status, sex, age, and degree of impairment: United States, July 1963-June 1964
[Data are based on houschold interviens of the civilina, noninstitutional population. The sursey design. general qualifications, and information on the relialility of the estimates are given in tppendix I. Definition of terms are gisen in lopendiv II]


[^17]Table 16. Number and percent of visually impaired persons aged 17 years and over, by labor force status, sex, age, and degree of impairment: United States, July 1963-June 1964
[Data are based on houschold intericus- of the chilian, noninstitutional population. The wursey design, general qualifications, and information on the reliability of the estimates are ginen in tppendical. Definitions of terms are given in inpendin II]


[^18]Table 17. Number and percent of total population aged 17 years and over, by labor force status, sex, and age: United States, July 1963-June 1964
[Data are based on household interviews of the civilian, noninstitutional population. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II]


NOTE: For official population estimates for more general use, see Bureau of the Census reports on the civilian population of the United States, in Gurrent Population Reports: Series $\mathrm{P}-20, \mathrm{P}-25$, and $\mathrm{P}-60$; and Bureau of Labor Statistics monthly report, Employment and Earnings.

Table 18. Number and percent distribution of total population and visually impaired persons aged 17 years and over, by living arrangements according to degree of impairment, sex, and age: United States, July 1963-June 1964

「Data are based on household interviews of the civilian, noninstitutional population. The survey design, general qualifications, and information on the reliability of the estrmates are given in Appendix I. Definitions of terms are given in Appendix II]


See footnotes at end of table.

Table 18. Number and percent distribution of total population and visually impaired persons aged 17 years and over, by living arrangements according to degree of impairment, sex, and age: United States, July 1963-June 1964-Con.
[Data are based on household interviews of the civilian, noninstitutional population. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II]


[^19]${ }^{2}$ Includes unknown degree of impairment.
NOTE: For official population estimates for more general use, see Bureau of the Censtis reports on the civilian population of the United States, in Current Population Reports: Series P-20, P-25, and $\mathrm{P}-60$.

Table 19. Number and percent of visually impaired persons aged 6 years and over who used an aid, by type of aid, degree of impairment, sex, age, family income, and educational level: United States, July 1963-June 1964
 estimates are given in Appendis I. Definitions of terms are given in Appendix II]


[^20]Table 20. Number and percent of visually impaired persons aged 6 years and over who were given the vision supplement, by degree of functional limitation, sex, age, family income, educational level, and degree of impairment: United States, July 1963-June 1964
[Data are based on household mincrimux of the cstilian, noninstitutional population. The surics design, peneral qualifications, and information on the reliability of the estimates are pivon an Appendiv I. Defimtions of termb are given in Appendix II]


[^21]Table 21. Number and percent distribution of visually impaired persons aged 6 years and over who were given the vision supplement, by age at which visual impairment first interfered with daily activities according to degree of impairment, sex, and age: United States, July 1963-June 1964 -
[Data are based on household interviews of the civilian, noninstitutional population. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II]

${ }^{1}$ Includes unknown age at first interference.
${ }^{2}$ Includes unknown number of eyes involved.
${ }^{3}$ Includes unknown degree of impaiment.

Table 22. Number and percent of persons in the total population and of visually impaired persons aged 6 years and over with selected chronic conditions, by degree of impairment: United States, July 1963-June 1964
[Data are based on household interviews of the civilian, noninstitutional population. The survey design, general qualifications, and information on the reliability of the estimates are given in 4npendix I. Definitions of terms are given in Appendix II]

| Selected chronic conditions ${ }^{1}$ | Total population, 6 years and over | Total visually impaired persons ${ }^{2}$ | Degree of visual impairment |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Both eyes involved |  |  | One eye involved |
|  |  |  | Total ${ }^{3}$ | Cannot read newsprint | Can read newsprint |  |
|  | Number in thousands |  |  |  |  |  |
|  | 8,114 | 1,152 | 752 | 329 | 422 | 385 |
| Goiter or thyroid trouble--------m-n------ | 2,695 | 140 | 85 | *32 | 53 | *49 |
|  | 2,311 | 341 | 249 | 120 | 127 | 87 |
| Anemia | 824 | 68 | *49 | *16 | *33 | *19 |
| Vascular lesions of the central nervous system | 948 | 210 | 147 | 88 | 58 | 59 |
| Selected heart diseases----m--------------- | 3,949 | 481 | 333 | 148 | 182 | 144 |
|  | 1,398 | 309 | 223 | 115 | 106 | 82 |
| Hypertension without heart involvement---- | 7,639 | 726 | 438128 | $\begin{array}{r} 153 \\ 60 \end{array}$ | 28468 | $\begin{aligned} & 274 \\ & * 44 \end{aligned}$ |
| General arteriosclerosis | 809 | 172 |  |  |  |  |
|  | Percent |  |  |  |  |  |
| Hearing impairment | 5.0 | 22.9 | 28.2 | 34.0 | 25.0 | 16.9 |
| Goiter or thyroid trouble | 1.7 | 2.8 | 3.2 | *3.3 | 3.1 | *2.1 |
|  | 1.4 | 6.8 | 9.3 | 12.4 | 7.5 | 3.8 |
|  | 0.5 | 1.4 | *1.8 | *1. 7 | *2.0 | *0.8 |
| Vascular lesions of the central nervous system | 0.6 | 4.2 | 5.5 | 9.1 | 3.4 | 2.6 |
| Selected heart diseases. | 2.5 | 9.6 | 12.5 | 15.3 | 10.8 | 6.3 |
| Hypertensive heart disease-m-------------- | 0.9 | 6.1 | 8.4 | 11.9 | 6.3 | 3.6 |
| Hypertension without heart involvement---- | 4.7 | 14.4 | 16.4 | 15.8 | 16.8 | 12.0 |
|  | 0.5 | 3.4 | 4.8 | 6.2 | 4.0 | *1.9 |

[^22]Table 23. Number and percent of persons in the total population and visually impaired persons aged 6 years and over with selected chronic conditions, by age: United States, July 1963-June 1964
[Data are based on household interviews of the civilian, noninstitutional population. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Aprendix II]

| Selected chronic conditions ${ }^{1}$ | Total population |  |  | Visually impaired persons |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | $6-64$ <br> years | 65 <br> years and over | Total | 6-64 years | 65 years and over |
|  | Number in thousands |  |  |  |  |  |
|  | $\begin{aligned} & 8,11 \\ & 2,69 \end{aligned}$ | $\begin{aligned} & 4,611 \\ & 2,423 \end{aligned}$ | 3,503 | 1,152 | 314 | 838 |
|  |  |  | 272 | 140 | 76 | 63 |
| Diabetes- | 2,311 | 1,424 | 887 | 341 | 122 | 220 |
| Anemia- | 824 | 662 | 162 | 68 | *27 | * 41 |
| Vascular lesions of the central nervous system------ | 948 | 344 | 605 | 210 | * 40 | 170 |
|  | 3,949 | 2,046 | 1,903 | 481 | 150 | 331 |
| Hypertensive heart disease----------------------------1. | 1,398 | 532 | 866 | 309 | 65 | 243 |
| Hypertension without heart involvement---------------- | 7,639 | 4,879 | 2,760 | 726 | 270 | 456 |
| General arteriosclerosis | 809 | 191 | 618 | 172 | *20 | 152 |
|  | Percent |  |  |  |  |  |
| Hearing impairment | 5.0 | 3.2 | 20.6 | 22.9 | 12.0 | 34.7 |
| Goiter or thyroid trouble | 1.7 | 1.7 | 1.6 | 2.8 | 2.9 | 2.6 |
| Diabetes | 1.4 | 1.0 | 5.2 | 6.8 | 4.7 | 9.1 |
| Anemia | 0.5 | 0.5 | 1.0 | 1.4 | *1.0 | *1.7 |
| Vascular lesions of the central nervous system------ | 0.6 | 0.2 | 3.6 | 4.2 | *1.5 | 7.0 |
|  | 2.5 | 1.4 | 11.2 | 9.6 | 5.7 | 13.7 |
| Hypertensive heart disease---------------------------- | 0.9 | 0.4 | 5.1 | 6.1 | 2.5 | 10.1 |
| Hypertension without heart involvement-------------- | 4.7 | 3.4 | 16.2 | 14.4 | 10.3 | 18.9 |
| General arteriosclerosis--..----------------------------- | 0.5 | 0.1 | 3.6 | 3.4 | \%0.8 | 6.3 |

[^23]Table 24. Number and percent of persons in the total population and of visually impaired persons with selected chronic conditions, by sex: United States, July 1963-June 1964
[Data are based on household interviews of the civilian, nominstitutional population. The survey design, general qualifications, and information on the reliability of the estimates are given in 4ppendix I. Definitions of terms are given in Appendix II]

| Selected chronic conditions ${ }^{1}$ | Total population, all ages |  |  | Visually impaired persons, 6 years and over |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Male | Female | Total | Male | Female |
|  | Number in thousands |  |  |  |  |  |
|  | 8,168 | 4,577 | 3,592 | 1,152 | 556 | 596 |
| Goiter or thyroid trouble | 2,709 | 306 | 2,403 | 140 | 19 | 121 |
|  | 2,313 | 964 | 1,349 | 341 | 111 | 231 |
| Anemia | 898 | 162 | 737 | 68 | 12 | 56 |
| Vascular lesions of the central nervous system | 952 | 492 | 460 | 210 | 89 | 121 |
| Selected heart diseases--m---------m---- | 3,966 | 2,170 | 1,797 | 481 | 208 | 273 |
| Hypertensive heart disease-------------- | 1,398 | 492 | 906 | 309 | 77 | 232 |
| Hypertension without heart involvement-- | 7,639 | 2,303 | 5,336 | 726 | 185 | 541 |
| General arteriosclerosis---------------- | 809 | 388 | 420 | 172 | 75 | 97 |
|  | Percent |  |  |  |  |  |
| Hearing impairment- | 27.4 | 37.4 | 20.4 | 22.9 | 24.5 | 21.6 |
| Goiter or thyroid trouble | 9.1 | 2.5 | 13.7 | 2.8 | 0.8 | 4.4 |
| Diabetes--------------------------------- | 7.8 | 7.9 | 7.7 | 6.8 | 4.9 | 8.4 |
|  | 3.0 | 1.3 | 4.2 | 1.4 | 0.5 | 2.0 |
| Vascular lesions of the central nervous system- | 3.2 | 4.0 | 2.6 | 4.2 | 3.9 | 4.4 |
|  | 13.3 | 17.7 | 10.2 | 9.6 | 9.2 | 9.9 |
| Hypertensive heart disease---------m---- | 4.7 | 4.0 | 5.2 | 6.1 | 3.4 | 8.4 |
| Hypertension without heart involvement-- | 25.6 | 18.8 | 30.3 | 14.4 | 8.1 | 19.6 |
| General arteriosclerosis----------------- | 2.7 | 3.2 | 2.4 | 3.4 | $-3.3$ | 3.5 |

[^24]
## APPENDIX 1

## TECHNICAL NOTES ON METHODS

## Background of This Report

This report is one of a series of statistical reports prepared by the National Health Survey. It is based on information collected in a continuing nationwide sample of households in the Health Interview Survey, a major part of the program.

The Health Interview Survey utilizes a questionnaire which, in addition to personal and demographic characteristics, obtains information on illnesses, injuries, chronic conditions and impairments, and other health topics. As data relating to each of these various broad topics are tabulated and analyzed, separate reports are issued which cover one or more of the specific topics. The present report is based on the consolidated sample for 52 weeks of interviewing ending June 1964.

The population covered by the sample for the Health Interview Survey is the civilian, noninstitutional population of the United States living at the time of the interview. The sample does not include members of the Armed Forces, U.S. nationals living in foreign countries, or crews of vessels.

## Statistical Design of the

## Health Interview Survey

General plan.-The sampling plan of the survey follows a multistage probability design which permits a continuous sampling of the civilian population of the United States. The first stage of this design consists of drawing a sample of 357 from about 1,900 geographically defined primary sampling units (PSU's) into which the United States has been divided. A PSU is a county, a group of contiguous counties, or a standard metropolitan statistical area.

With no loss in general understanding, the remaining stages can be combined and treated in this discussion as an ultimate stage. Within PSU's, then, ultimate stage units called segments are defined in such a manner that each segment contains an expected nine households. A segment consists of a cluster of neighboring households or addresses. Two general types of segments are used: (1) area segments which are defined geographically, and (2) B segments which are defined
from a list of addresses from the Decennial Census and Survey of Construction. Each week a random sample of about 90 segments is drawn. In the approximately 800 households in these segments, household members are interviewed concerning factors related to health.

Since the household members interviewed each week are a representative sample of the population, samples for successive weeks can be combined into larger samples. Thus the design permits both continuous measurement of characteristics of high incidence or prevalence in the population and, through the larger consolidated samples, more detailed analysis of less common characteristics and smaller categories. The continuous collection has administrative and operational advantages as well as technical assets since it permits field work to be handled with an experienced, stable staff.

Sample size and geographic detail. - The national sample plan for the $12-$ month period ending in June included about 134,000 persons from 42,000 households in about 4,700 segments.

The overall sample was designed in such a fashion that tabulations can be provided for each of the major geographic regions and for urban and rural sectors of the United States.

Collection of data.-Field operations for the household survey are performed by the U.S. Bureau of the Census under specifications established by the National Center for Health Statistics. In accordance with these specifications the Bureau of the Census selects the sample, conducts the field interviewing as an agent of the Center, and performs a manual editing and coding of the questionnaires. The Health Interview Survey, using Center electronic computers, carries out further editing and tabulates the edited data.

Estimating methods.-Each statistic produced by the survey-for example, the number of persons with impaired vision-is the result of two stages of ratio estimation. In the first of these, the control factor is the ratio of the 1960 decennial population count to the 1960 estimated population in the National Health Survey's first-stage sample of PSU's. These factors are applied for some 25 color-residence classes.

Later, ratios of sample-produced estimates of the population to official Bureau of the Cepsus figures for current population in about 60 age-sex-color classes
are computed and serve as second-stage factors for ratio estimating.

The effect of the ratio-estimating process is to make the sample more closely representative of the population by age, sex, color, and residence, thus reducing sampling variance.

As noted, each week's sample represents the population living during that week and characteristics of this population. Consolidation of samples over a time period, say a calendar quarter, produces estimates of average characteristics of the U.S. population for that calendar quarter. Similarly, population data for a year are averages of the four quarterly figures.

For prevalence statistics, such as the number of persons with impaired vision, figures are first calculated for each calendar quarter by averaging estimates for all weeks of interviewing in that quarter. Prevalence data for a year are then obtained by averaging the four quarterly estimates.

## General Qualifications

Nonvesponse.-Data were adjusted for nonresponse by a procedure which imputes to persons in a household which was not interviewed the characteristics of persons in households in the same segment which were interviewed. The total noninterview rate was 5 percent; 1 percent was refusal, and the remainder was primarily due to the failure to find any eligible household respondent after repeated trials.

The interview process. - The statistics presented in this report are based on replies secured in interviews of persons in the sampled households. Each person 19 years of age and over available at the time of interview was interviewed individually. Proxy respondents within the household were employed for children and for adults not available at the time of the interview, provided the respondent was closely related to the person about whom information was being obtained.

There are limitations to the accuracy of diagnostic and other information collected in household interviews. For diagnostic information, the household respondent can, at best, pass on to the interviewer only the information the physician has given to the family. For conditions not medically attended, diagnostic information is often no more than a description of symptoms. However, other facts, such as the number of disability days caused by the condition, can be obtained more accurately from household members than from any other source, since only the persons concerned are in a position to report this information.

Rounding of numbers. - The original tabulations on which the data in this report-are based show all estimates to the nearest whole unit. All consolidations were made from the original tabulations using the estimates to the nearest unit. In the final published tables the figures are rounded to the nearest thousand, although these are not necessarily accurate to that detail. De-
vised statistics, such as rates and percent distributions, are computed after the estimates on which these are based have been rounded to the nearest thousand.

Population figures.- Some of the published tables include population figures for specified categories. Except for certain overall totals by age and sex, which are adjusted to independent estimates, these figures are based on the sample of households in the National Health Survey. These are given primarily to provide denominators for rate computation and for this purpose are more appropriate for use with the accompanying measures of nealth characteristics than other population data that may be available. In some instances these will permit users to recombine published data into classes more suitable to their specific needs. With the exception of the overall totals by age and sex mentioned above, the population figures differ from corresponding figures (which are derived from different sources) published in reports of the Bureau of the Census. For population data for general use, see the official estimates presented in Bureau of the Census reports in the $\mathrm{P}-20, \mathrm{P}-25$, and $\mathrm{P}-60$ series.

## Reliability of Estimates

Since the estimates are based on a sample, they will differ somewhat from the figures that would have been obtained if a complete census had been taken using the same schedules and instructions and interviewing personnel and procedures. As in any survey, the results are also subject to measurement exror.

The standard error is primarily a measure of sampling variability, that is, the variations that might occur by chance because only a sample of the population is surveyed. As calculated for this report, the standard error also reflects part of the variation which arises in the measurement process. It does not include estimates of any biases which might lie in the data. The chances are about 68 out of 100 that an estimate from the sample would differ from a complete census by less than the standard error. The chances are about 95 out of 100 that the difference would be less than twice the standard error and about 99 out of 100 that it would be less than $21 / 2$ times as large.

The relative standard error of an estimate is obtained by dividing the standard exror of the estimate by the estimate itself and is expressed as a percentage of the estimate. Included in this appendix are charts from which the relative standard errors can be determined for estimates shown in the report. In order to derive relative errors which would be applicable to a wide variety of health statistics and which could be prepared at a moderate cost, a number of approximations were required. As a result, the charts provide an estimate of the approximate relative standard error rather than the precise error for any specific aggregate or percentage.

Three classes of statistics for the health survey are identified for purposes of estimating variances. Narrow range. - This class consists of (1) statistics which estimate a population attribute, e.g., the number of persons in a particular income group, and (2) statistics for which the measure for a single individual for the period of reference is usually either 0 or 1 , on occasion may take on the value 2, and very rarely, 3.

Medium range. -This class consists of other statistics for which the measure for a single individual for the period of reference will rarely lieoutside the range 0 to 5 .

Wide range. -This class consists of statistics for which the measure for a single individual for the period of reference frequently will range from 0 to a number in excess of 5 , e.g., the number of days of bed disability experienced during the year.

In addition to classifying variables according to whether they are narrow-, medium-, or wide-range, statistics in the survey are further defined as:

Type A.-Statistics on prevalence and incidence data for which the period of reference in the questionnaire is 12 months.

Type B.-Incidence-type statistics for which the period of reference in the questionnaire is 2 weeks.

Type C.-Statistics for which the reference period is 6 months.
Only the charts on sampling error applicable to data contained in this report are presented.

General ruies for determining relative sampling errors. -The "guide on page 52 , together with the following rules, will enable the reader to determine approximate relative standard errors from the charts for estimates presented in this report.

Rule 1. Estimates ofaggregates: Approximate relative standard errors for estimates of aggregates such as the number of persons with a given characteristic are obtained from appropriate curves on page 53. The number of persons in the total U.S. population or in an age-sex class of the total population is adjusted to official $\mathrm{Bu}-$ reau of the Census figures and is not subject to sampling error.
Rule 2. Estimates of percentages in a percent distribution: Relative standard errors for percentages in a percent distribution of a total are obtained from appropriate curves on page 54. For values which do not fall on
one of the curves presented in the chart, visual interpolation will provide a satisfactory approximation.
Rule 3. Estimates of rates where the numerator is a subclass of the denominator: This rule applies for prevalence rates or where a unit of the numerator occurs, with few exceptions, only once in the year for any one unit in the denominator. For example, in computing the rate of visual impairments per 1,000 population, the numerator consisting of persons with the impairment is a subclass of the denominator which includes all persons in the population. Such rates if converted to rates per 100 may be treated as though they were percentages, and the relative standard errors obtained from the chart on page 54. Rates per 1,000 , or on any other base, must first be converted to rates per 100; then the percentage chart will provide the relative standard error per 100.
Rule 4. Estimates of rates where the numerator is not a subclass of the denominator: This rule applies where a unit of the numerator often occurs more than once for any one unit in the denominator. For example, in the computation of the number of persons injured per 100 currently employed persons per year, it is possible that a person in the denominator could have sustained more than one of the injuries included in the numerator. Approximate relative standard errors for rates of this kind may be computed as follows:
(a) Where the denominator is the total U.S. population or includes all persons in one or more of the age-sex groups of the total population, the relative error of the rate is equivalent to the relative error of the numerator which can be obtained directly from the appropriate chart.
(b) In other cases, obtain the relative standard error of the numerator and of the denominator from the appropriate curve. Square each of these relative errors, add the resulting values, and extract the square root of the sum. This procedure will result in an upper bound and often will overstate the error.

## Guide to Use of Relative Standard Error Charts

The code shown below identifies the appropriate curve to be used in estimating the relative standard error of the statistic described. The four components of each code describe the statistic as follows:
(1) A= aggregate, $P=$ percentage; (2) the number of calendar quarters of data collection; (3) the type of the statistic; and (4) the range of the statistic as described on page 51.

| Statistic | Use: |  |  |
| :---: | :---: | :---: | :---: |
|  | Rule | Code on | page |
| Number of: <br> Persons in the U.S. population or total number of persons in any age-sex category | Not subject to sampling error |  |  |
| Persons in any other population group---------------- | 1 | A4AN | 53 |
| Persons with vision impairment, by type-------------- | 1 | A4AN | 53 |
| Percentage distribution of: <br> Persons with vision impairment | 2 | P4AN-M | 54 |
| Prevalence rates per 1,000 persons in any population group | 3 | P4AN-M | 54 |



Example of use of chart: An aggregate of $2,000,000$ (on scale at bottom of chart) for a Narrow range Type A statistic (code: A4AN) has a relative standard error of 3.6 percent, (read from scale at left side of chart), or a standard error of 72,000 ( 3.6 percent of $2,000,000$ ). For a Wide range Type B statistic (code: A4BW), an aggregate of $6,000,000$ has a relative error of 16.0 percent or a standard error of 960,000 ( 16 percent of $6,000,000$ ).

## Relative standard errors for percentages based on four quarters of data collection for type A data, Narrow and Medium range <br> (Base of percentage shown on curves in miliions)



Estimated percentage
Example of use of chart: An estimate of 20 percent (on scale at bottom of chart) based on an estimate of $10,000,000$ has a relative standard error of 3.2 percent (read from the scale at the left side of the chart), the point at which the curre for a base of $10,000,000$ intersects the vertical Iine for 20 percent. The standard error in percentage points is equal to 20 percent $X 3.2$ percent or 0.64 percentage points.

## APPENDIX

## DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT

## Demographic and Economic Terms

Age. - The age recorded for each person is the age at last birthday. Age is recorded in single years and grouped in a variety of distributions depending upon the purpose of the table.

Color.-In this report, the population has been subdivided into two groups according to "white" and "nonwhite." 'Nonwhite" includes Negro, American Indian, Chinese, Japanese, and so forth. Mexican persons are included with "white" unless definitely known to be Indian or of another nonwhite race.

Income of family or of unrelated individuals. - Each member of a family is classified according to the total income of the family of which he is a member. Within the household all persons related to each other by blood, marriage, or adoption constitute a family. Unrelated individuals are classified according to their own income.

The income recorded is the total of all income received by members of the family in the 12 -month period preceding the week of interview. Income from all sources is included, e.g., wages, salaries, rents from property, pensions, and help from relatives.

Living arrangement. - The three categories of living arrangements shown in this report are as follows:

1. Living alone.-Living alone is defined as persons living in one-member households.
2. Living with relatives.-This category includes persons who are living in a household with another person or persons, of whom one or more are related to him by blood, marriage, or adoption.
3. Living with nonrelatives.-This category includes persons living in a household with another person or persons, none of whom are related to him by blood, marriage, or adoption.
Residence. - The place of residence of a member of the civilian, noninstitutional population is classified as inside a standard metropolitan statistical area (SMSA) or outside an SMSA, according to farm or nonfarm residence.

Standard metropolitan statistical areas.-The definitions and titles of SMSA's are established by the
U.S. Bureau of the Budget with the advice of the Federal Committee on Standard Metropolitan Statistical Areas. There were 212 SMSA's defined for the 1960 Decennial Census, for which data may beprovided for places of residence in the Health Interview Survey.

The definition of an individual SMSA involves two considerations: first, a city or cities of specified population which constitute the central city and identify the county in which it is located as the central county; and, second, economic and social relationships with contiguous counties (except in New England) which are metropolitan in character, so that the periphery of the specific metropolitan area may be determined. SMSA's are not limited by State boundaries.

Farm and nonfarm residence. - The population residing outside SMSA's is subdivided into the farm population, which comprises all non-SMSA residents living on farms, and the nonfarm population, which comprises the remaining non-SMSA population. The farm population includes persons living on places of 10 acres or more from which sales of farm products amounted to $\$ 50$ or more during the previous 12 months or on places of less than 10 acres from which sales of farm products amounted to $\$ 250$ or more during the preceding 12 months. Other persons living in non-SMSA territory were classified as nonfarm if their household paid rent for the house but their rent did not include any land used for farming.

Sales of farm products refer to the gross receipts from the sale of field crops, vegetables, fruits, nuts, livestock and livestock products (milk, wool, etc.), poultry and poultry products, and nursery and forest products produced on the place and sold at any time during the preceding 12 months.

Region.-For the purpose of classifying the population by geographic area, the States are grouped into four regions. These regions, which correspond to those used by the Bureau of the Census, are as follows:

| Region | States Included |
| :---: | :---: |
| Northeast----- | Maine, New Hampshire, Vermont, |
|  | Massachusetts, Rhode Island, |
| Connecticut, New York, New |  |
| Jersey, Pennsylvania |  |

Northeast------- Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Jersey, Pennsylvania

North Central --- Michigan, Ohio, Indiana, Illinois, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas
South----------- Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, Texas
West ---------- Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Alaska, Washington, Oregon, California, Hawaii

## Terms Relating to Employment Status

In the labor force. - The labor force includes all persons 17 years of age or over who worked at or had a job or business, were looking for work, or were on layoff from work during the 2 -week period prior to week of interview. The labor force consists of persons currently employed and those unemployed, as defined below.

Currently employed persons. - Currently employed persons are all persons 17 years of age or over who reported that at any time during the 2 -week period covered by the interview they either worked at or had a job or business. Current employment includes paid work as an employee of someone else; self-employment in business, farming, or professional practice; and unpaid work in a family business or farm. Persons who were temporarily absent from their jobor business because of a temporary illness, vacation, strike, or bad weather are considered as currently employed if they expected to work as soon as the particular event causing their absence no longer existed.

Free-lance workers are considered as having a job if they had a definite arrangement with one or more employers to work for pay according to a weekly or monthly schedule, either full-time or part-time. Excluded from the currently employed population are such persons who have no definite employment schedule but who work only when their services are needed.

Also excluded from the currently employed population are (1) persons who were not working, even though having a job or business, but were on layoff or looking for work, (2) persons receiving revenue from an enterprise in whose operation they did not participate, (3) persons doing housework or charity work for which they received no pay, and (4) seasonal workers during the unemployment season."

The number of currently employed persons estimated by the National Health Survey (NHS) will differ from the estimates prepared by the Current Population Survey (CPS), Bureau of the Census, for several reasons. In addition to sampling variability they include
three primary conceptual differences, namely: (1) NHS estimates are for persons 17 years of age or over; CPS estimates are for persons 14 years of age or over. (2) NHS uses a 2 -week-reference period while CPS uses a 1-week-reference period. (3) NHS is a continuing. survey with separate samples taken weekly, while CPS is a monthly sample taken for the survey week which includes the 12 th of the month.

Currently unemployed persons. -This category includes persons 17 years of age or over who, during the 2 -week period prior to interview, did not work or had no job or business but were looking for work, and persons with a job but on layoff or looking for work.

## Terms Relating to Disability

Chronic activity limitation.-Persons with chronic conditions are classified into four categories according to the extent to which their activities are limited at present as a result of these conditions. Since the usual activities of preschool children, school-age children, housewives, and workers and other persons differ, a different set of criteria is used for each group. There is a general similarity between them, however, as will be seen in the descriptions of the four categories below:

1. Persons unable to carry on major activity for their group (major activity refers to ability to work, keep house, or go to school)
Preschool children: inability to take part in ordinary play with other children.

School-age children: inability to go to school, Housewives:

Workers and all other persons:
inability to work at a job or business.
2. Persons limited in the amount or kind of major activity performed (major activity refers to ability to work, keep house, or go to school) Preschool children: limited in the amount or kind of play with other children, e.g., need special rest periods, cannot play strenuous games, cannot play for long periods at a time.

School-age children: limited to certain types of schools or in school attendance, e.g., need special schools or special teaching, cannot go to school full time or for long periods at a time.

Workers and all other persons:
limited in amount or kind of housework, i.e., cannot lift children, wash or iron, or do housework for long periods at a time.
limited in amount or kind of work, e.g., need special working aids or special rest periods at work, cannot work full time or for long periods at a time, cannot do strenuous work.
3. Persons not limited in major activity but otherwise limited (major activity refers to ability to work, keep house, or go to school)

Preschool children: not classified in this category.

School-age children: not limited in going to school but limited in participation in athletics or other extracurricular activities.

Housewives:
not limited in housework but limited in other activities, such as church, clubs, hobbies, civic projects, or shopping.

Workers and all other persons:
not limited in regular work activities but limited in other activities, such as church, clubs, hobbies, civic projects, sports, or games.
4. Persons not limited in activities

Includes persons with chronic conditions whose activities are not limited in any of the ways described above.

## Selected Chronic Conditions

Below are listed the selected chronic conditions shown in this report along with their equivalent code numbers from the 1955 revision of the International Classification of Diseases.

Condition Code
Hearing impairment---------- X06, X07,X09
Goiter or thyroid trouble------- 250-254
Diabetes -----------------------1 260
Anemia -----------------------290-293
Vascular lesions of the central nervous system------- 330-334
Selected heart diseases --..---.- 420-434,782.1,782.2, 782.4

Hypertensive heart disease----- 440-443
Hypertension without heart
involvement----------------- 444-447
General arteriosclerosis------- 450

## APPENDIX III

## CLASSIFICATION OF IMPAIRMENTS

A classification of impairments was developed by the Division of Public Health Methods in the years 1955-56 in order to provide-in the relatively simple detail required for household health surveys-a method of coding certain residuals of diseases and injuries so that the present effect and the underlying cause could be reflected within one diagnostic code. (This report will not discuss the cause of the vision impairments.) This supplementary classification (referred to as the X-Code) to the International Classification of Diseases is essentially a rearrangement and expansion of the Supplementary Y-Codes, Y50-Y88, of the ICD, Volume I, Seventh Revision.

The section of the X -Code which covers vision impairments ${ }^{4}$ is as follows:

## X00 - Blindness, both eyes.

X01 - Blind in one eye, other eye defective but not . blind.
X02 - Blind in one eye, other eye good or not mentioned.
X05 - Impaired vision except as in X00-X02, one or both eyes.

[^25]A few changes have been made in the X -Code since July 1964, but it has remained essentially the same. Persons with vision problems and defects were classified according to the information in Tables I and II of the questionnaire and the question "Can you see well enough to read ordinary newsprint with glasses?"

In an effort to further refine the classification of vision impairments, a contractual arrangement was made with Dr. Jerome D. Schein of Gallaudet College to develop a new classification scheme and to supervise the coding of the vision data. Dr. Schein developed the following code for degree of visual impairment:
Code 1. Blind in both eyes
Code 2. Blind in one eye, other is defective but not blinत
Code 3. Blind in one eye, other is good or not mentioned

## Code 4. Impaired vision in both eyes

Code 5. Impaired vision in one eye, other is good or not mentioned
Code 6. No impairment of vision mentioned, but eye condition exists in both eyes, EXCEPT: glaucoma, cataract, retrolental fibroplasia should be coded as visual impairment even if no specific statement of impaired vision
Code 7. No impairment of vision mentioned, but eye condition exists in one eye and no condition is reported for the other eye. EXCEPT: glaucoma, cataract, retrolental fibroplasia should be coded as visual impairment even if no specific statement of impaired vision.
Code 8. Impaired vision and not possible to determine if one or both eyes involved, because:
a. no mention of whether one or both eyes involved; or
b. respondent states he does not know whether one or both eyes involved
Code 9. Eye condition reported with no mention of visual impairment and not possible to determine if one or both eyes involved, because:
a. no mention of whether one or both eyes involved
b. respondent states he does not know whether one or both eyes involved
Code X. Blank or Do not know

The major differences between the Gallaudet code and the X -Code is that the Gallaudet code does not utilize the question on reading newsprint to determine blindness but rather uses only the respondent's description of the eye condition. Both codes take into account the number of eyes involved; however, if the respondent cannot read newsprint it is assumed, for purposes of coding to the X-Code, that both eyes are involved. Therefore the number of persons with bilateral involvement is greater by the X -Code than by the Gallaudet code. The Gallauder code and the XCode both take into consideration two factors in determining the degree of impairment: (1) if one or both eyes are involved and (2) if the person is (a) blind or (b) has other vision impairments.

One of the major reasons for asking additional vision questions in 1963-64 was to develop a more detailed classification of vision impairments. Analysts in the Division of Health Interview Statistics developed several ways of classifying degree of impairments by utilizing the responses to the questions on Table $B$ of the questionnaire. The first "scale" was more detailed than the final form but did not include the variable on the number of eyes involved. The second attempt relied on responses within the supplement itself to classify many of the impaired persons. The final form, shown below, used responses to Table $B$ and the number of eyes involved as indicated by the Gallaudet code.

Classification of persons with a visual problem
(00-65) Both eyes involved
(00-23) Cannot see newsprint
00 Cannot see features, moving objects or light
01 Cannot see features or moving objects, can see light
12 Can see one and not the other (features and moving objects)
23 Can see both features and moving objects
(32-65) Can see newsprint
32 Cannot see features and/or moving objects
Great deal of trouble seeing - can see features and moving objects
44 Cannot see a friend across the street 45 Can see a friend across the street
Some trouble seeing (can see features and moving objects)
54 Cannot see a friend across the street 55 Can see a friend across the street
None or hardly any trouble seeing - can see features and moving objects (no supplement)

64 Cannot see a friend across the street
65 Can see a friend across the street
66 No vision problem reported (all of table B, Yes)
77 Degree of vision problem unknown
88 One eye involved
99 Unknown if one or both eyes involved
In developing the classification of impairment the relationships between the degrees of impairment and various functional limitations, such as activity limitation, reading restrictions, and uses of aid were examined to check the consistency of the degree of impairment, i.e., that the greater degrees of impairment had more functional limitations. However, as can be seen from examining the final degree of impairment code, it is not a scale in the sense that each category is more severe than the one below it. For example, category 32 includes persons with more limitations than category 23.

The coding by degree of impairment makes use of objective (e.g., see moving objects) and subjective (how much trouble seeing) questions. However, most of the analysis in this report uses a collapsed form of the code which is based only on the objective variables-number of eyes involved and ability to read newsprint. The collapsed form is shown below:

> Both eyes involved Cannot read newsprint
> Can read newsprint
> One eye involved

## Comparison of X-Code to Classification of

## Vision Impairment Used in This Report

Although the vision recode used in this report was developed independently of the impairment code (X-Code), they were both based on similar questions. Table I shows the relationship between the two codes. The major difference between the two is the factor of bilateral involvement. On the X-Code, if the respondent reported he could not read newsprint, it was assumed that both eyes were involved and he was automatically coded X00. However, it was known from experience that some respondents answer the question on reading newsprint only in terms of their bad eye (if only one is involved), resulting in an erroneous assumption that both eyes are involved. When developing the new vision recode, other information on the questionnaire was also used to determine the number of eyes involved. This should explain most of the estimated 142,000 persons who were blind in both eyes according to the X -Code, but who had only one eye involved according to the vision code, since virtually all these persons reported they could not read newsprint.

Table I. Distribution of visually impaired persons aged 6 years and over, by vision recode and census impairment code: United States, July 1963-June 1964


[^26]
## APPENDIX IV

## QUESTIONNAIRE

The items below show the exact content and nordang of the basic guestionnaire used in the nationwide houschold survey of the U.S. National Health Survey. The actual nuestionnaire is designed for $s$ housohold as a unit and includos additional spaces for reports on more than one rersor, condition, accident, or hosnitalization. Such repetitive spaces are omitted in this illustration.

| CONFIDENTIAL - The National Henlth Survey is authorized by Public Law 652 of the 81 th Coogteas (70 Seat 480; 42 U.S.C. 305). Alt infor- <br>  the purposea of the survey, and will not be diselosed or released to athers (o: way ather purposes (22 FR 1667 ). |  |  |  |  |  | BUDOLT EURKAU NO. CEMRISP, APPROVAL EXPDERE JULY 1S, 1044 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | 1. Questionnaite $\qquad$ <br> of <br> Queariannaizes $\qquad$ |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 9. (a) Segmeat $\mathrm{No}$. | $\begin{aligned} & \text { 9. Seriai } \\ & \text { No. } \end{aligned}$ |
| 2. (a) Addrezs ar de setiption of location: Include city, zone and State | 3. Iden. Code | $\begin{aligned} & \text { 4. Rege } \\ & \text { oftice } \\ & \text { Code } \end{aligned}$ | $\text { 5. Subs } \begin{gathered} \text { sumple } \\ \text { weight } \end{gathered}$ | 6. Sample | $\begin{aligned} & \text { 7. PSU } \\ & \text { No. } \end{aligned}$ | a. (b) Segmear type |  |
| 2. (b) Malline addrete if hot shown in 2(a) OR, $\square$ Sunc az shown in |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  | Serin! No. of <br> origine! Sample <br> Unis |  | Irem No. by which fouad |  | If in NTA Segment, also eaket for FIRST unit lizted on property: |  |
| 2. (c) Niwne of specinal dwelling place |  |  |  | SEGMERT |  |  |  |
|  |  |  |  |  |  |  |  | ET ND. |  |
|  | 12. Type of living quartets (Check one box)$\square$ Housing unt $\square$ Other suit |  |  |  |  |  |  |
|  | ALL segments (ask if Item 2fa) addess identifies a SiNGLE-UNHT structure). <br> 13. Are thore ony oecupiad or vacone tiving quertoes EESIDES YOUR OWN-- <br> - . in the baxament7. . . . $\square$ <br> $\mathbf{Y}$ <br> Ce--S $\qquad$ 1. $\qquad$ $\square$ No |  |  |  |  |  |  |
|  | $\qquad$ <br> - - on ony ether flaor <br> of this building? . : . . <br>  <br> L No |  |  |  |  |  |  |
|  | ALL segments (ask if leem 2(a) identufies entife floor or unnumbered part of floor in * MULTI-UNIT setucture). <br> 14. Are thare any actupled or vacant tiving quartars BESIDES YOUR OWN -. <br> If Item 2(s) identifies entire floor <br> -- on this floer? If Iten $2(m)$ identifien part of floor, specify part $\rightarrow$ In the oe of thl floer? $\square$ Yex=-S $\qquad$ 1 $\qquad$ No |  |  |  |  |  |  |
|  | Th and NTA segevents (ask at all unts EXCEPT APARTMENT HOUSES). <br> 15. Is there any ether building on this peapanty for peaple te live in - either eccupted er vectum? Yew-S $\qquad$ L $\qquad$ $\square$ No <br>  |  |  |  |  |  |  |
|  | 16. Whàt is the telaphone number here? |  |  | Treephone No. |  |  |  |
|  |  |  |  | OR Notelephone |  |  |  |








| TABLE 8 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | CREAD TO RESPONDENTI Earlier in the int owviow you told me obaut your oye condithon. This is a motter of spacies Interext to the Puble Health Sorctice thls year ond tions obout il. <br> (b) |  |  | Can yeu sea move, such as cors moving or poeple welkine? <br> (e) | INTERVIETER | "Yes' toc | (is.(c), $(\mathrm{d})$, (e) | INTERYIE WEP | "No" to exher Cois. (f) orih) |
|  |  |  |  |  |  | Cen you sco will enough to step dawn? | Cen yeu sec weil anough te fecognime e friend walhing en slde of the street? <br> (h) | "Ye " ${ }^{\text {" }}$ to boxh Cols (g) and (h)-5TOP "No" to etther Ask Cot. (I) | Hew megih treuble wautd you sey thet yeu heve in seeing - o gropt deol, neme, ec berdly eny et all? <br> (1) |
|  |  |  |  |  | (i) | (E) |  |  |  |
|  |  | $\begin{aligned} & \square \text { Yes } \\ & \square \text { No } \end{aligned}$ | $\begin{aligned} & \square \mathrm{Xes} \\ & \square \text { No } \end{aligned}$ | $\begin{aligned} & \square \text { Xes } \\ & \square \text { No }^{2} \end{aligned}$ |  |  | $\begin{aligned} & \square \mathrm{Yes} \\ & \square \mathrm{No} \end{aligned}$ | $\square$ Yes (sTOP) <br> [-] No (Aak Cot. (f)) |  |
|  |  | $\begin{aligned} & \square \mathrm{Yes} \\ & \square \mathrm{No} \end{aligned}$ | $\begin{aligned} & \square \text { Yes } \\ & \square^{N o} \end{aligned}$ | $\begin{aligned} & \square^{\mathrm{Yes}} \\ & \square^{\mathrm{Na}} \end{aligned}$ |  | $\begin{aligned} & \square \mathrm{Yez} \\ & \square{ }^{\mathrm{No}} \end{aligned}$ | $\begin{aligned} & \square^{\mathrm{Yez}} \\ & \square^{\mathrm{No}} \end{aligned}$ | $\square$ Yes (stor) $\square$ Na (sex Col. fit) |  |
|  |  | $\begin{aligned} & \square^{\text {Yes }} \\ & \square^{N} \end{aligned}$ | $\begin{aligned} & \square \mathrm{Ye} \\ & \square \mathrm{aNo} \end{aligned}$ | $\begin{aligned} & \square_{\text {Yes }}^{n} \\ & \square^{\mathrm{No}} \end{aligned}$ |  | $\square^{\text {yet }}$ | $\begin{aligned} & \square^{\mathrm{Yes}} \\ & \square^{\mathrm{No}} \end{aligned}$ | $\square$ Nis (Aek Coh. (II) |  |



## VISION SUPPLEMENT




| QUESTIONS | DEFINTITONS |
| :---: | :---: |
| 4. Do you see things as if yau were laaking through a fube or a gun-barrel? Yes $\square$ No | Persons with this type of visual defect ("Tunnel Vision'") will understand the question |
| 5a, Beccuse of your trouble seeing, do you ever use any aids either in getting around the house or in traveling oufside the housw; such as a cane, guide dog, or a person with sight? $\square$ Yes $\square$ No (Go to Quastion 6) <br> 'If "Yos," ask: <br> b. Which do you use? (Mert ench one mentionod) A cane ( 1 f manked ank Quention 5b (i) A guide dog ( 1 f marked ank Quention $5 \mathrm{sb}(2)$ A person with sight Other (specify) $\qquad$ $\qquad$ $\qquad$ <br> If cene umod, ask: <br> (1) Have you ever had any special instructions in using or getting areund with a cane? $\square$ Yes $\square$ No <br> If gulde dog uaod, aek: <br> (2) Have you over had ony spectal instructions in troveling with gulde dogs? $\square$ Yes No | "Special instructions" means training by a trained instructor |
| 6a. Havo you over heard of tolking book records? $\square$ Yes <br> No (Go to Question 7) <br> If "Yos," ask: <br> b. At the present iime ore you getting talking book records of any kind through the mail? $\square$ Yes No | If the supplement person is a child, 6a refers to whether the respondent ever heard of talking book xecords; 6 b to whechet the child is receiving them. |
| 7a. Kave yau ever had any instruction in reading braille? $\square$ Yes $\square$ No (Oo to Quention s) <br> If "Yee," aek: <br> b. Can you read braille? $\square$ Yes $\square$ No (Go to Quantion s) <br> 'TI "Yos," Rak: <br> c. At the present time are you reading books in braille? Yes No |  |
| Footnotes and comments |  |




| QUESTIONS | DEFINITIONS |
| :---: | :---: |
| 19. How long have you lived in $\qquad$ (this oreo)? Less than a year One year but less than two Two years but less than five Five years but les: than ten Ten years or over | Insert name of city or town -if in rural area, substitute "this area." |
| 20. Because of your trouble with seeing, are you presently receiving any financial help or other servicas from publie or private agencies? Yes No | Include all types of services, such as, aid in shopping; receipt of free recorded books, etc. |

Foornores and comments

| Section |  |
| :---: | :---: |
| QUESTIONS | DEFINITIONS |
| 1. Con you see well enough to tell if a light is on op off? Yes No |  |
| 2a. Did your trouble with seeing come suddenly or did it come grodually? Suddenly Gradually At birth (Skip to Queation 5) <br> If "Studdeniy" of "Gradually," ask: <br> b. How old were you whan your trouble with seeing FIRST began to inferfere with your daily activities, that ls, yeur work, recreation, education, or travel? . . . . . . . . . . . . . . . . . . . . . . . . . $\begin{aligned} & \text { If age in Quoution 2b ie: } \\ & \text { undor } 6 \text {, fo to Queatioh } 3 \text {; } \\ & 17 \text { or over, skip to Quention } 4 \text {; } \\ & 6-16 \text {, akip to Question } 5 \text {. } \end{aligned}$ | "Suddenly" would be either instantaneously oc in a very short time, usually associated with . an injury. <br> "Daily activities" means the person's usual activities, depending on the age of the person at the time. |
| If ade in Quention 2 b ia under 6 , ank: <br> 3a. Could you see anything besidgs light whan you were an infant? $\square$ Yes $\square$ No (Skip to Question 3) <br> If "Yec," ank: <br> b. Do you ramember sau!ng colers? $\square$ Yes Nó <br> c. Do you remember saeping moving objects or people's features? Yes $\square$ No <br> (Sxip to Quention 3) |  |
| If age in Quation 2b ia 17 or overs, atk: <br> 4. Were you warking of a job or business before you began to have qrouble with saeing? Yes $\square$ No |  |
| 5. When wera your eyes leat examined by a mysician eye specialist? During the past 12 months $\qquad$ Years $\square$ Nexer | If over 12 months, round to nearest year; round $1 /$ years upward, e.b., "11/2" years should be recorded an "2" years. |
| Footnotes and commente |  |


| QUESTIONS | DEFINITIONS |
| :---: | :---: |
| 60. Beccuse of your trauble seoing, do you ever use any aids oither in getting around the house or in travaling outside the house; such os a cane, guide dog, or a person with sight? Yes No (Go to Question 7) <br> If "Yes," ask: <br> b. Which do you use? (Mark each one mentioned) A cane (It marked, ask Question 6b(1)) A guide dog (If markod, ask Question 6 b(2)) A person with sight Other (Spocify) $\qquad$ $\qquad$ <br> If cane tised, ask: <br> (I) Have you ever had any special instructions in using or getting around with a cane? Yes $\square$ No <br> If guide dog used, ask: <br> (2) Have you ever had any special instructions in traveling with guide dogs? $\square$ Yes No | "Special instructions" means training by a trained instructor. |
| 7a. Have you ever heard of talking book records? $\square$ Yes $\square$ No (Go to Question 8) <br> If "Yes," ask: <br> b. At the present time are you gotting talking book reeords of any kind through the mail? $\square$ Yes No | If the supplement person is a child, 7 a refers to whether the respondent ever heard of talking book records; 7 b to whether the child is receiving them. |
| 8a. Have you ever had any instructions in reading braille? $\square$ Yes No (Go to Question 9) <br> If "Yes," ask: <br> b. Can you read braille? No (Go to Question 9) <br> If "Yes," ask: <br> c. At the present time are you reading books in braille? Yes No |  |
| 9. During an average week, about how many hours do you spend reading or listening to books? $\qquad$ None | "An average week" is whatever the person considers to be a typical week. <br> Include books in braille, recorded books and printed books read by or to the person, but not including magazines or newspapers. If answer not reported in hours, convert to hours. |
| 10. During an average week, about how many hours do you spend listening to the radio or television? Don't listen | If answer not reported in hours, convert to hours. |
| Footnotes and comments |  |




Footnotes and comments
$\qquad$

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[^0]:    ${ }^{1}$ American Association of Workers for the Blind, Inc.: Blindness-1966. Washington, D. C. p. 99.

[^1]:    ${ }^{2}$ Two sample persons who could not read newsprint were, through error, not administered a supplement. Thus, the estimate of persons who could not read newsprint derived from the basic interview data amounts to 969,000 (see table 1), while that derived from the supplement is 966,000 (see table 20).

[^2]:    ${ }^{1}$ Includes unknown number of eyes involved.
    ${ }^{2}$ Includes unknown degree of impairment.

[^3]:    ${ }^{1} \mathrm{X}-$ Code $=\mathrm{X} 00$.
    21959-61 data are from Series B, Number 35, table B, p.6. Data are for all ages.
    ${ }^{3}$ Using all ages as the base, figures would be as follows: all visual impairments27.1, severe visual impairments-6.0, other visual impairments-21.1.

[^4]:    ${ }^{1}$ Includes unknown degree of impairment.
    ${ }^{2} 59,000$ cannot see light.

[^5]:    ${ }^{1}$ Includes unknown number of eyes involved.
    ${ }^{2}$ Includes unknown degree of impairments.

[^6]:    ${ }^{1}$ Includes unknown number of eyes involved.
    ${ }^{2}$ Includes unknown degree of impairment.

[^7]:    ${ }^{1}$ Includes unknown number of eyes involved.
    ${ }^{2}$ Includes unknown degree of impairment.

[^8]:    ${ }^{3}$ National Society for the Prevention of Blindness, Inc.: Estimated Statistics on Blindness and Vision Problems. 1966. p. 47.

[^9]:    ${ }^{1}$ Includes unknown number of eyes involved.
    ${ }^{2}$ Includes unknown degree of impairment.

[^10]:    ${ }^{1}$ Includes unknown number of eyes involved.
    ${ }^{2}$ Includes unknown degree of impairment.
    ${ }^{3}$ Includes unknown income.

[^11]:    ${ }^{1}$ Includes unknown number of eyes involved.

    - Includes unknown degree of impairment.

[^12]:    ${ }^{1}$ Includes unknown number of eyes involved.
    "Includes unknown degree of impairment.

[^13]:    ${ }^{1}$ Includes unknown number of eyes involved.
    ${ }^{2}$ Includes unknown degree of impairment.

[^14]:    ${ }^{\text {i Major activity refers to ability to work, keep house, or engage in school or preschool activities. }}$
    ${ }^{\text {I Includes }}$ unknown number of eyes involved.
    ${ }^{3}$ Includes unknown degree of impairment.

[^15]:    ${ }^{1}$ Major activity refers to ability to work, keep house, or engage in school or preschool activities.

[^16]:    ${ }^{1}$ Major activity refers to ability to work, keep house, or engage in school or preschool activities.

[^17]:    ${ }^{1}$ Includes unknown number of eyes involved.
    ${ }^{2}$ Includes unknown degree of impairment.

[^18]:    ${ }^{1}$ Includes unknown degree of impairment.

[^19]:    ${ }^{1}$ Includes unknown number of eyes involved.

[^20]:    'Includes "other" and unknown type of aid.
    ${ }^{2}$ Includes unknown number of eyes involved.
    ${ }^{3}$ Includes unknown degree of impairment.

[^21]:    ${ }^{1}$ Includes unknown number of eyes involved.
    2ncludes unknown degree of impairment.

[^22]:    ${ }^{1}$ See Appendix II for definitions.
    ${ }^{2}$ Includes unknown number of eyes involved.
    ${ }^{8}$ Includes unknown degree of impairment.

[^23]:    ${ }^{1}$ See Appendix II for definitions.

[^24]:    ${ }^{1}$ See Appendix II for definitions.

[^25]:    4The definition of vision impairment according to the X -Code is as follows: The loss of one or both eyes is considered an impairment regardless of the date of onset. All other blindness or visual defects are impaiments if the following criteria are met and if the date of onset was 3 or more months ago. A person 6 years of age or older is defined as blind if he cannot see well enough to read ordinary newspaper print with glasses (a "no" response in column $c$, fig. 1). If the respondent can see well enough to read ordinary newspaper print with glasses and the description of the visual defect in Table I of the questionnaire (Appendix IV) includes "blind" or "blindness" (with or without modifiers) in one or both eyes, the defect is considered an impairment. An impairment is involved if the respondent can read ordinary newsprint with glasses and the description of the defectindicates that vision, sight, eyesight, seeing, or ability to see--in one or both eyes--is affected in some way. Modifiers such as "poor," "weak," "bad," "impaired," "defective," "blurred," "trouble with" can be coupled with the words vision, sight, eyesight, or seeing and be included as impairments. Eye defects such as "color blindness," "near sighted," "far sighted," "myopia," "cross-eye," "lazy eye," "bad eyes," "blurred eyes," or "weak eyes" are to be treated as eye diseases or conditions, but not as vision impairments, unless response to the questions in Table Iof the questionnaire indicates some visual loss, e.g., "trouble in seeing." (Note that a distinction is made between "bad eyesight" and "bad eyes," for example, with the former description classified as an impairment while the latter is a condition. The rationale for this distinction is that "bad eyes" do not necessarily imply poor eyesight and thus would not be considered an impairment.)

[^26]:    ${ }^{1}$ Includes unknown number of eyes involved.
    ${ }^{2}$ Includes unknown degree of impairment.

