

# A DISCUSSION OF THE VITAL STATISTICS OF THE TWELFTH CENSUS.

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In any large reference library in this country many inquiries concerning vital statistics are made which can be answered only, if at all, by reference to reports on this subject published by individual states and cities or by the National Government. The most general inquiry propounded is "what official reports relating to births, marriages, and deaths have been published in this country, and which of these reports have you available for reference?" The answer to the last part of this question, as given by the catalogue of the library under the heading "Statistics (Vital) United States," and under the names of the states and cities, is a fairly good answer to the whole general question, since there are very few official documents of any value relating to this subject which are not contained in such a library.

In the great majority of cases this answer is of very little use to the reader, who has no idea which of the reports specified contains the information of which he is in search, and who may waste much time and labor in seeking for what does not exist. For example, one person wants data as to the effects of the emancipation of slaves on the birth and death rates of the negro, as shown by these rates in Virginia for the five years preceding and the five years following the Civil War. There are no official data of this kind of any value. Another person wishes to compare the death rates of coal miners in the United States, in Belgium, and in Great Britain for the last ten years, but no such data are available for the United States.

If the purpose in consulting these reports be to obtain comparative data showing the result of varying conditions upon the general mortality, or to show the relative death rates at different ages, from different causes or of different classes of population in the same or different places during a series of consecutive years, the information must be sought from the local reports on this subject issued by the states or cities for which comparisons are wanted. Here the student or analyst finds great difficulty in securing any comprehensive information, owing to lack of tables covering the details sought. Very few of the cities make any extensive compilation of the material at their command, and in such compilations which are most complete, as well as in the state reports, there are differences in the forms of tables and in the methods of classifying the data

which prevent carrying comparisons very far, even if they do not entirely preclude them.

On the other hand, the general statistics heretofore published by the Bureau of the Census, while giving uniform results for the different states and cities as far as the data permit, cover only the "census" years, and the fact that the primary purpose of such statistics is to furnish comparative data for a large number of different areas in a limited space makes it necessary to treat the subject in a broad sense and to give only the most important details.

The factors, in addition to locality, which influence the mortality, such as age, sex, color, nativity and parent nativity, conjugal condition, occupation, and season, are so numerous that to give tables showing all of them in their complex relations to causes of death in each area, in a general report of this kind, is entirely impracticable. For example, the principal table, giving deaths from each cause by age and sex, requires 8 pages for each area; but if these data were shown in relation to color, by conjugal condition and nativity, it would require over 1,000 pages for each area. The student, therefore, should not expect to find every combination of data that he may wish for special purposes, but some of the most essential details of general interest will be found presented very fully.

There is no subject of importance connected with national growth and development upon which the general public is so ignorant and indifferent as that of the vital statistics of the people. It is due to this ignorance and indifference that no adequate legal provision is made in many of the states and cities for the proper registration of births, marriages, and deaths, which is essential to correct vital statistics.

In view of the importance of the subject, it seems useful to supplement the reports on vital statistics of the Twelfth Census by a few suggestions as to some of the uses which may be made of them, prepared, not for the use of statisticians and experts, but for the information of those who have little knowledge of the subject and of its relations to the daily interests of life.

The interest and value of vital statistics depend upon their being so presented as to permit of making comparisons. The fact that 460 deaths occurred in a certain locality during a year is of small interest by itself. If

we also knew that the population of the place during that year was 46,000, giving a death rate of 10 per 1,000, we can compare it with the death rates of other places, and thus find that it was a low death rate. If we also knew that the number of births during the same period was 460, giving a birth rate of 10 per 1,000, we might suppose that there were comparatively few women and children in that town, and few negroes. If we also knew the number of children under 5 years of age, the number of deaths among them, and the number of women between 15 and 50 years of age, we could make further comparisons, and if we found that the proportion of children and of women of child bearing age was about the same as in most cities, we should probably conclude that the number of births and deaths was too small, and that an adequate system of registration is needed. This last is the conclusion which will be reached by a skilled statistician when considering the number of deaths and births given for the majority of the states, and, therefore, for the United States as a whole, in the Census Report on Vital Statistics.

No state has a complete registration of births, the ones that come nearest to it being probably Massachusetts, Rhode Island, and Connecticut, but the results of the registration in these states should be sought, not in the Census report, but in the state reports of births, marriages, and deaths.

The only states which had a registration of deaths sufficiently complete to make the death rates worth calculating were Connecticut, Maine, Massachusetts, Michigan, New Hampshire, New Jersey, New York, and Rhode Island, which, with the District of Columbia, form the group referred to in the Census report as the "registration" states.

No southern state, and no western state except Michigan, had any satisfactory system of registering deaths at the time the data were collected. Even in the states classed as registration states the deaths were not all recorded, as was found by a comparison of the returns made by the enumerators with the registration records. The results of this comparison are given on pages xv-xiii, Vol. III, of the Twelfth Census Report.

Some statisticians having ascertained that the Census reports on vital statistics, for the majority of the states, are incomplete and unreliable, and do not enable us to make definite comparisons of the birth and death rates of this country with those given for France, Germany, Great Britain, and other countries having a fairly satisfactory system of registration, conclude that it is hardly worth while to attempt to study or use the data given in the vital statistics of the Census, and that the money expended in their collection and compilation has been wasted. This appears to be an error. There is a large amount of information contained in the census figures which can be brought out by careful study and comparisons with the data of other countries, and if

they do not always answer questions, they suggest many interesting lines of research. This is especially the case with regard to the statistics of the causes of death, which, inaccurate and incomplete as they are, contain nevertheless much more information than the published vital statistics of France and Germany, and are only surpassed by those of Great Britain. They can be greatly improved, and by the methods to be used by the permanent Census Bureau they will, no doubt, be greatly improved, but the vital statistics volumes of the Tenth, Eleventh, and Twelfth censuses will always have great value in medicine, in hygiene, and in sociology.

If the historian had a few such reports as these for ancient Greece or Rome, for Italy or France or England in the sixteenth century, or for Asia and Africa of to-day, his sources of information would be enormously increased. In the volumes containing the vital statistics of the Tenth, Eleventh, and Twelfth censuses there is a large amount of information with regard to the relative prevalence of certain causes of death in the Southern and Western states, which is very little known or made use of by physicians, by sociologists, or by local historians, but which will hereafter be shown to be of considerable importance and interest. On the other hand, there are many sources of error in these statistics, and in the ratios derivable from them, which make it necessary to consider the results with caution. In this respect the figures given for the registration area do not differ materially from those for other countries. One of the most important of these sources of error is the number of cases in which the facts sought are unknown to the persons furnishing information to the enumerators or the registrars. This applies especially to the facts relating to conjugal condition and to occupation, both for the living population and for the dead, and it is impossible to compute even approximately reliable life tables on these points from the census data of any country.

To ascertain the effects of a given occupation on health requires a special investigation, but the census data give some valuable suggestions as to the direction which such an investigation should take. The same may be said with regard to the relative prevalence of certain causes of death in different localities, or in different occupations or races. The census figures ask some very interesting questions and indicate probabilities, and, although not scientifically accurate, it is a mistake to assume that they are necessarily so inaccurate as to be unworthy of consideration; most of them are valuable for comparison with other data, and many of them are very suggestive. For example, as Mr. King has pointed out (Twelfth Census, Vol. III, page lvii), the death rate for the United States can not be accurately determined, but it was probably between 16 and 17 per 1,000, being less than it was in 1890 by nearly 10 per cent, and less than that of most foreign countries. There has

been a similar decrease in other countries, as is shown by the following table:

TABLE 1.—Comparative death rates per 1,000 population for certain countries.

|                                   | 1890 | Twenty-five years, 1870-1900 | 1900 |
|-----------------------------------|------|------------------------------|------|
| Austria                           | 29.4 | 28.6                         | 25.4 |
| Belgium                           | 20.6 | 20.1                         | 19.3 |
| Denmark                           | 19.0 | 18.3                         | 16.9 |
| England and Wales                 | 19.5 | 19.1                         | 18.2 |
| France                            | 22.3 | 21.0                         | 21.9 |
| German Empire                     | 24.4 | 24.2                         | 22.1 |
| Prussia                           | 24.0 | 23.7                         | 21.8 |
| Hungary                           | 32.4 | 32.8                         | 26.9 |
| Ireland                           | 18.2 | 18.2                         | 19.6 |
| Italy                             | 26.4 | 26.5                         | 23.8 |
| Netherlands                       | 29.5 | 20.8                         | 17.8 |
| Norway                            | 17.9 | 16.6                         | 16.9 |
| Scotland                          | 19.7 | 19.2                         | 18.5 |
| Spain                             | 32.5 | 30.3                         | 28.7 |
| Sweden                            | 17.1 | 17.0                         | 16.8 |
| Switzerland                       | 23.8 | 20.6                         | 19.3 |
| United States (registration area) | 19.6 |                              | 17.8 |

<sup>1</sup> Average for twenty years, 1878-1884, 1888-1900.

The question as to whether the decrease in mortality in 1900 as compared with 1890 was due to temporary causes, such as the comparative absence of epidemics or more favorable meteorological conditions in 1900,

or to permanent causes, such as improved sanitary conditions, is an interesting and important one.

The tables given on pages cxiii-cxv of Vol. III, Twelfth Census, indicate that it was due largely to a lessening of the mortality from consumption, diphtheria, and diseases of children, the lower death rates from these causes being considerably more than sufficient to offset the increased mortality from pneumonia, cancer, heart disease, apoplexy, and other diseases of old age. The greatest diminution is in the mortality from consumption, which, in the registration area, was 187.3 per 100,000 of population in 1900, while in 1890 it was 245.4. Within the last ten years much has been done to instruct the public as to the mode by which pulmonary tuberculosis is spread, and as to the proper methods of prevention, and the health departments of most of our large cities have given much attention to this subject. It is very satisfactory to find that the census figures indicate that good results are being obtained.

The following table gives the data for a comparison of the death rates per 1,000 in 1890 and in 1900, for the registration states and the cities in those states, with distinctions of sex and color for each of certain age groups:

TABLE 2.—DEATH RATES PER 1,000 POPULATION AT CERTAIN AGES, BY COLOR AND SEX: 1900 AND 1890.

| SEX AND COLOR. | REGISTRATION STATES. |                |                |                 |                 |                    |           | CITIES IN REGISTRATION STATES. |                |                |                 |                 |                    |           |
|----------------|----------------------|----------------|----------------|-----------------|-----------------|--------------------|-----------|--------------------------------|----------------|----------------|-----------------|-----------------|--------------------|-----------|
|                | All ages.            | Under 5 years. | 5 to 14 years. | 15 to 44 years. | 45 to 64 years. | 65 years and over. | Un-known. | All ages.                      | Under 5 years. | 5 to 14 years. | 15 to 44 years. | 45 to 64 years. | 65 years and over. | Un-known. |
| Total:         |                      |                |                |                 |                 |                    |           |                                |                |                |                 |                 |                    |           |
| 1890           | 19.5                 | 64.5           | 5.3            | 9.4             | 21.3            | 76.6               | 33.7      | 22.2                           | 89.4           | 6.2            | 10.8            | 26.3            | 88.0               | 20.7      |
| 1900           | 17.3                 | 49.9           | 3.8            | 7.9             | 20.3            | 82.2               | 25.3      | 18.6                           | 59.7           | 4.3            | 8.8             | 24.3            | 90.9               | 15.9      |
| Males:         |                      |                |                |                 |                 |                    |           |                                |                |                |                 |                 |                    |           |
| 1890           | 20.4                 | 68.8           | 5.3            | 9.9             | 23.0            | 78.3               | 33.2      | 23.7                           | 85.9           | 6.3            | 11.8            | 29.0            | 92.0               | 21.8      |
| 1900           | 18.1                 | 54.4           | 3.9            | 8.3             | 21.4            | 85.9               | 21.9      | 19.8                           | 65.0           | 4.3            | 9.5             | 26.3            | 95.2               | 12.7      |
| Females:       |                      |                |                |                 |                 |                    |           |                                |                |                |                 |                 |                    |           |
| 1890           | 18.5                 | 60.1           | 5.4            | 8.9             | 19.7            | 75.1               | 34.5      | 20.7                           | 74.6           | 6.2            | 9.9             | 23.7            | 86.0               | 19.1      |
| 1900           | 16.5                 | 45.4           | 3.8            | 7.6             | 19.2            | 80.0               | 31.9      | 17.5                           | 54.4           | 4.2            | 8.1             | 22.3            | 87.6               | 22.0      |
| White:         |                      |                |                |                 |                 |                    |           |                                |                |                |                 |                 |                    |           |
| 1890           | 19.3                 | 63.3           | 5.2            | 9.3             | 21.2            | 76.5               | 35.0      | 21.9                           | 78.8           | 6.1            | 10.7            | 26.1            | 88.4               | 21.8      |
| 1900           | 17.1                 | 48.9           | 3.7            | 7.8             | 20.1            | 82.7               | 25.8      | 18.4                           | 58.3           | 4.2            | 8.6             | 24.1            | 90.6               | 16.5      |
| Males—         |                      |                |                |                 |                 |                    |           |                                |                |                |                 |                 |                    |           |
| 1890           | 20.2                 | 67.5           | 5.2            | 9.7             | 22.9            | 78.2               | 34.1      | 23.4                           | 84.2           | 6.1            | 11.6            | 28.8            | 91.7               | 23.0      |
| 1900           | 18.0                 | 53.3           | 3.8            | 8.2             | 21.2            | 85.7               | 22.2      | 19.6                           | 63.6           | 4.2            | 9.3             | 26.1            | 94.8               | 12.9      |
| Females—       |                      |                |                |                 |                 |                    |           |                                |                |                |                 |                 |                    |           |
| 1890           | 18.3                 | 59.0           | 5.2            | 8.8             | 19.6            | 74.9               | 36.4      | 20.5                           | 73.3           | 6.0            | 9.8             | 25.5            | 85.8               | 20.4      |
| 1900           | 16.3                 | 44.3           | 3.7            | 7.5             | 19.0            | 79.6               | 33.3      | 17.2                           | 53.0           | 4.1            | 7.9             | 22.1            | 87.4               | 23.3      |
| Colored:       |                      |                |                |                 |                 |                    |           |                                |                |                |                 |                 |                    |           |
| 1890           | 27.4                 | 118.5          | 10.2           | 14.4            | 28.6            | 84.6               | 16.4      | 31.5                           | 151.4          | 12.0           | 10.1            | 33.5            | 98.1               | 6.4       |
| 1900           | 25.3                 | 112.0          | 8.7            | 12.7            | 29.4            | 93.4               | 15.5      | 27.6                           | 131.6          | 9.9            | 13.0            | 32.3            | 105.4              | 7.5       |
| Males—         |                      |                |                |                 |                 |                    |           |                                |                |                |                 |                 |                    |           |
| 1890           | 28.9                 | 128.6          | 9.9            | 15.0            | 31.1            | 89.1               | 19.0      | 34.0                           | 163.3          | 11.7           | 7.6             | 37.2            | 107.5              | 7.0       |
| 1900           | 25.9                 | 118.5          | 7.3            | 12.8            | 29.7            | 102.7              | 16.7      | 28.8                           | 139.6          | 8.8            | 14.6            | 33.3            | 121.2              | 8.0       |
| Females—       |                      |                |                |                 |                 |                    |           |                                |                |                |                 |                 |                    |           |
| 1890           | 26.1                 | 109.0          | 10.4           | 13.9            | 26.1            | 81.9               | 18.6      | 29.2                           | 140.3          | 12.2           | 14.7            | 30.0            | 92.3               | 5.8       |
| 1900           | 24.7                 | 105.8          | 9.6            | 12.7            | 29.0            | 85.8               | 13.9      | 26.4                           | 124.1          | 10.9           | 13.3            | 31.2            | 94.6               | 6.9       |

An examination of the death rates by ages shows that the diminution of the rates for each class for the ages below 45 is noteworthy.

Probably the most interesting and valuable data contained in the Census Report on Vital Statistics are those which relate to municipal mortality statistics. They are, as a rule, more complete and accurate than the mortality statistics of rural and thinly settled districts or of the states taken as a whole. They include localities differing greatly as to climate, and furnish some of the best data we possess for studying certain problems

connected with sociology, and the relative prevalence of certain forms of disease in different places.

The tables in the Vital Statistics of the Twelfth Census which give the most important information with regard to the registration cities are Table 19, Volume III, and Table 7, Volume IV.

The following table, condensed from Table 19, Volume III, shows for each registration city the population and the gross death rate, with the death rate per 100,000 of population from each of certain diseases, with distinction of color, for the census year 1900:

TABLE 3.—POPULATION AND GROSS DEATH RATE, WITH DEATH RATES FROM CERTAIN PRINCIPAL DISEASES, BY COLOR, CENSUS YEAR: 1900.

| CITY.                   | POPULATION. |           | DEATH RATES PER 1,000 OF POPULATION. |        | DEATH RATES PER 100,000 OF WHITE POPULATION. |                                  |                 |                        |                                  |                        |                         |                                    |                 |                                |                                |  |
|-------------------------|-------------|-----------|--------------------------------------|--------|--|----------------------------------|-----------------|------------------------|----------------------------------|------------------------|-------------------------|------------------------------------|-----------------|--------------------------------|--------------------------------|--|
|                         | Total.      | White.    | Total.                               | White. | Measles.                                     | Diph-<br>theria<br>and<br>croup. | Influ-<br>enza. | Ty-<br>phoid<br>fever. | Diar-<br>rheal<br>dis-<br>eases. | Con-<br>sump-<br>tion. | Cancer<br>and<br>tumor. | Heart<br>disease<br>and<br>dropsy. | Pneu-<br>monia. | Diseases<br>nervous<br>system. | Diseases<br>urinary<br>system. |  |
|                         |             |           |                                      |        |  |                                  |                 |                        |                                  |                        |                         |                                    |                 |                                |                                |  |
| Albany, N. Y.           | 94,151      | 92,962    | 19.3                                 | 19.2   | 22.6   | 55.9                             | 22.6            | 44.1                   | 72.1                             | 245.8                  | 73.1                    | 153.8                              | 175.3           | 231.8                          | 123.0                          |  |
| Allegheny, Pa.          | 129,896     | 120,552   | 18.1                                 | 18.5   | 8.7  | 29.2                             | 21.3            | 101.9                  | 177.0                            | 168.0                  | 36.3                    | 130.4                              | 278.9           | 210.2                          | 41.9                           |  |
| Allentown, Pa.          | 35,416      | 35,325    | 18.2                                 | 18.3   | .....  | 87.8                             | 14.2            | 48.1                   | 121.7                            | 135.9                  | 34.0                    | 212.3                              | 181.2           | 257.6                          | 53.4                           |  |
| Altoona, Pa.            | 38,973      | 38,566    | 13.3                                 | 19.2   | 5.2  | 93.5                             | 5.2             | 49.3                   | 111.5                            | 140.0                  | 67.4                    | 132.2                              | 155.3           | 300.8                          | 51.9                           |  |
| Atlanta, Ga.            | 89,872      | 54,080    | 23.6                                 | 23.1   | 1.8  | 29.6                             | 24.0            | 98.0                   | 292.1                            | 220.0                  | 59.2                    | 166.4                              | 122.0           | 334.6                          | 146.1                          |  |
| Atlantic City, N. J.    | 27,339      | 21,267    | 16.7                                 | 18.1   | 9.1  | 70.5                             | 47.0            | 18.8                   | 94.0                             | 150.5                  | 65.8                    | 131.7                              | 136.4           | 282.1                          | 131.7                          |  |
| Auburn, N. Y.           | 30,345      | 29,814    | 17.2                                 | 17.1   | 3.4  | 57.0                             | 6.7             | 40.2                   | 97.3                             | 147.6                  | 87.2                    | 140.9                              | 134.5           | 275.0                          | 53.7                           |  |
| Baltimore, Md.          | 508,957     | 429,218   | 21.0                                 | 19.1   | 4.7  | 73.9                             | 17.7            | 33.8                   | 177.3                            | 178.0                  | 69.9                    | 114.2                              | 183.4           | 229.0                          | 138.9                          |  |
| Bay City, Mich.         | 27,028      | 27,485    | 12.7                                 | 12.7   | 10.9   | 76.4                             | 10.9            | 29.1                   | 47.3                             | 69.1                   | 83.7                    | 181.9                              | 47.3            | 131.0                          | 40.0                           |  |
| Bayonne, N. J.          | 32,722      | 32,333    | 16.7                                 | 16.5   | 18.5   | 40.2                             | 15.5            | 15.5                   | 136.0                            | 157.6                  | 43.3                    | 105.1                              | 234.9           | 225.6                          | 98.9                           |  |
| Binghamton, N. Y.       | 39,647      | 39,142    | 17.6                                 | 17.6   | .....  | 104.7                            | 12.3            | 33.2                   | 120.1                            | 171.2                  | 53.7                    | 117.5                              | 153.3           | 270.8                          | 84.3                           |  |
| Boston, Mass.           | 560,892     | 548,033   | 20.1                                 | 20.0   | 18.1   | 75.5                             | 33.1            | 27.0                   | 132.6                            | 239.4                  | 76.6                    | 162.9                              | 248.0           | 194.7                          | 73.4                           |  |
| Bridgeport, Conn.       | 70,996      | 69,776    | 17.3                                 | 17.1   | 38.7   | 24.4                             | 67.3            | 16.0                   | 163.4                            | 197.8                  | 50.2                    | 98.9                               | 216.4           | 176.3                          | 124.7                          |  |
| Brockton, Mass.         | 40,063      | 39,707    | 18.2                                 | 13.3   | 2.5  | 50.4                             | 63.0            | 40.8                   | 83.1                             | 158.7                  | 45.3                    | 93.2                               | 141.0           | 158.7                          | 88.1                           |  |
| Buffalo, N. Y.          | 352,837     | 350,536   | 14.8                                 | 14.7   | 28.8   | 26.5                             | 10.8            | 24.5                   | 134.1                            | 128.9                  | 56.5                    | 112.7                              | 157.7           | 162.9                          | 82.7                           |  |
| Cambridge, Mass.        | 91,886      | 87,875    | 18.5                                 | 18.2   | 9.1  | 83.5                             | 25.0            | 19.3                   | 133.1                            | 204.8                  | 75.1                    | 165.0                              | 208.3           | 208.3                          | 63.4                           |  |
| Camden, N. J.           | 75,935      | 70,288    | 16.3                                 | 15.2   | 11.4   | 126.6                            | 18.5            | 27.0                   | 69.7                             | 162.2                  | 46.9                    | 126.6                              | 133.7           | 229.1                          | 122.4                          |  |
| Canton, Ohio            | 30,623      | 30,525    | 13.3                                 | 13.3   | .....  | 81.9                             | 13.1            | 55.7                   | 39.3                             | 140.9                  | 49.1                    | 88.5                               | 85.2            | 226.0                          | 59.0                           |  |
| Charleston, S. C.       | 55,807      | 24,238    | 37.5                                 | 25.6   | 12.4   | 4.1                              | 90.8            | 103.1                  | 235.2                            | 189.3                  | 123.3                   | 156.8                              | 103.1           | 272.3                          | 313.6                          |  |
| Chelsea, Mass.          | 34,072      | 33,291    | 18.7                                 | 18.9   | 9.0  | 75.1                             | 45.1            | 24.0                   | 117.1                            | 228.3                  | 93.1                    | 156.2                              | 226.3           | 240.3                          | 81.1                           |  |
| Chicago, Ill.           | 1,698,575   | 1,667,140 | 16.2                                 | 16.1   | 16.4   | 65.6                             | 8.9             | 27.5                   | 151.5                            | 171.9                  | 63.8                    | 100.1                              | 210.4           | 170.8                          | 82.4                           |  |
| Cincinnati, Ohio        | 325,902     | 311,404   | 19.1                                 | 18.6   | 1.6  | 34.4                             | 15.4            | 30.8                   | 125.9                            | 217.1                  | 74.2                    | 134.2                              | 148.0           | 252.4                          | 112.4                          |  |
| Cleveland, Ohio         | 381,768     | 375,664   | 17.1                                 | 17.1   | 1.9  | 52.2                             | 6.9             | 48.2                   | 112.3                            | 127.6                  | 54.6                    | 130.4                              | 134.2           | 252.1                          | 58.6                           |  |
| Columbus, Ohio          | 125,560     | 117,335   | 15.8                                 | 15.4   | 8.5  | 27.3                             | 22.2            | 52.0                   | 108.2                            | 201.1                  | 80.1                    | 108.2                              | 122.5           | 236.1                          | 73.3                           |  |
| Covington, Ky.          | 42,936      | 40,434    | 20.2                                 | 20.1   | .....  | 84.6                             | 12.4            | 39.6                   | 123.7                            | 232.5                  | 44.6                    | 180.6                              | 126.1           | 311.6                          | 163.2                          |  |
| Davenport, Iowa         | 35,254      | 34,732    | 15.9                                 | 15.9   | .....  | 2.9                              | 5.8             | 66.2                   | 77.7                             | 141.0                  | 86.3                    | 120.8                              | 100.7           | 253.1                          | 83.4                           |  |
| Dayton, Ohio            | 85,833      | 81,923    | 16.5                                 | 16.3   | .....  | 13.1                             | 12.2            | 51.3                   | 61.0                             | 184.3                  | 97.7                    | 172.1                              | 74.5            | 240.0                          | 93.9                           |  |
| Denver, Colo.           | 133,559     | 129,609   | 18.6                                 | 18.4   | 11.6   | 34.7                             | 10.8            | 41.7                   | 78.7                             | 321.7                  | 71.0                    | 122.7                              | 193.7           | 203.7                          | 86.4                           |  |
| Detroit, Mich.          | 285,701     | 281,575   | 17.1                                 | 17.0   | 28.1   | 47.6                             | 8.2             | 13.5                   | 152.4                            | 122.2                  | 67.8                    | 118.3                              | 159.1           | 211.0                          | 75.3                           |  |
| Duluth, Minn.           | 52,969      | 52,547    | 13.2                                 | 13.2   | 6.7  | 15.2                             | 1.9             | 41.9                   | 108.5                            | 93.2                   | 72.3                    | 156.1                              | 156.1           | 121.8                          | 83.7                           |  |
| Easton, Pa.             | 25,238      | 24,907    | 16.7                                 | 16.6   | .....  | 44.2                             | 12.0            | 13.1                   | 104.4                            | 164.6                  | 56.2                    | 140.5                              | 140.5           | 273.0                          | 72.3                           |  |
| Elizabeth, N. J.        | 52,130      | 50,968    | 17.5                                 | 17.4   | 3.9  | 35.3                             | 13.7            | 7.5                    | 188.4                            | 163.7                  | 49.1                    | 109.9                              | 243.3           | 237.4                          | 104.0                          |  |
| Elmira, N. Y.           | 35,072      | 34,856    | 15.4                                 | 15.4   | 2.9  | 23.0                             | 37.3            | 37.3                   | 48.8                             | 163.5                  | 63.1                    | 109.0                              | 111.9           | 243.9                          | 129.1                          |  |
| Erie, Pa.               | 52,783      | 52,493    | 15.2                                 | 15.2   | 3.8  | 51.4                             | 7.6             | 84.3                   | 104.8                            | 146.7                  | 41.9                    | 184.8                              | 110.5           | 215.3                          | 70.5                           |  |
| Evansville, Ind.        | 59,007      | 51,486    | 17.7                                 | 17.6   | 17.5   | 23.3                             | 9.7             | 79.6                   | 151.5                            | 227.2                  | 60.2                    | 89.3                               | 122.4           | 213.7                          | 83.8                           |  |
| Fall River, Mass.       | 104,863     | 104,468   | 22.4                                 | 22.4   | 16.3   | 24.9                             | 30.6            | 22.0                   | 394.4                            | 197.2                  | 52.7                    | 143.6                              | 209.7           | 260.4                          | 76.6                           |  |
| Fitchburg, Mass.        | 31,531      | 31,439    | 13.6                                 | 13.6   | 6.4  | 33.2                             | 12.7            | 19.1                   | 120.9                            | 108.1                  | 63.6                    | 117.7                              | 133.6           | 108.1                          | 54.1                           |  |
| Glocester, Mass.        | 20,121      | 20,050    | 14.9                                 | 14.9   | .....  | 26.9                             | 69.1            | 15.4                   | 119.0                            | 168.9                  | 63.3                    | 145.9                              | 103.6           | 165.1                          | 53.7                           |  |
| Grand Rapids, Mich.     | 87,565      | 86,932    | 14.4                                 | 14.5   | 23.9   | 42.6                             | 15.1            | 39.1                   | 83.7                             | 103.1                  | 62.1                    | 117.3                              | 126.5           | 134.0                          | 63.8                           |  |
| Harrisburg, Pa.         | 60,167      | 40,044    | 17.3                                 | 17.3   | 2.2  | 60.3                             | 34.7            | 34.7                   | 63.0                             | 167.2                  | 67.3                    | 143.3                              | 158.5           | 376.7                          | 78.0                           |  |
| Hartford, Conn.         | 79,850      | 77,837    | 19.4                                 | 19.4   | 9.0  | 96.4                             | 39.8            | 56.5                   | 150.3                            | 203.0                  | 75.3                    | 125.9                              | 200.4           | 230.0                          | 131.0                          |  |
| Haverhill, Mass.        | 37,175      | 36,756    | 15.1                                 | 15.2   | .....  | 35.4                             | 46.3            | 10.9                   | 111.5                            | 144.2                  | 63.0                    | 157.8                              | 185.0           | 166.0                          | 73.9                           |  |
| Hoboken, N. J.          | 59,864      | 59,290    | 21.1                                 | 21.1   | 28.6   | 55.7                             | 11.3            | 32.1                   | 145.3                            | 223.0                  | 50.7                    | 143.6                              | 237.2           | 232.1                          | 103.0                          |  |
| Holyoke, Mass.          | 45,712      | 45,043    | 17.9                                 | 18.0   | 41.6   | 59.2                             | 32.9            | 23.5                   | 225.7                            | 181.8                  | 50.4                    | 83.3                               | 157.7           | 216.9                          | 65.7                           |  |
| Indianapolis, Ind.      | 109,134     | 103,201   | 16.7                                 | 15.9   | 2.6  | 36.0                             | 27.4            | 45.0                   | 94.6                             | 176.9                  | 67.2                    | 101.2                              | 123.4           | 221.3                          | 70.5                           |  |
| Jackson, Mich.          | 25,130      | 24,701    | 13.4                                 | 13.3   | .....  | 10.2                             | 16.2            | 60.7                   | 44.5                             | 117.4                  | 93.1                    | 129.5                              | 85.0            | 170.0                          | 76.9                           |  |
| Jacksonville, Fla.      | 23,429      | 12,153    | 29.0                                 | 25.6   | .....  | 24.7                             | 49.4            | 90.5                   | 145.1                            | 304.3                  | 49.4                    | 197.4                              | 143.1           | 312.6                          | 123.4                          |  |
| Jersey City, N. J.      | 200,433     | 202,510   | 20.7                                 | 20.3   | 11.9   | 54.3                             | 13.3            | 22.2                   | 130.7                            | 232.1                  | 47.9                    | 153.5                              | 270.1           | 275.0                          | 111.6                          |  |
| Johnstown, Pa.          | 35,936      | 35,013    | 19.3                                 | 19.3   | 25.3   | 69.0                             | 11.2            | 95.5                   | 151.6                            | 101.1                  | 47.7                    | 146.0                              | 308.9           | 244.3                          | 53.2                           |  |
| Kansas City, Mo.        | 133,732     | 136,090   | 17.4                                 | 16.3   | 8.9  | 31.5                             | 3.9             | 39.0                   | 121.2                            | 153.4                  | 52.7                    | 141.0                              | 179.3           | 103.7                          | 73.0                           |  |
| Lancaster, Pa.          | 41,459      | 40,663    | 17.5                                 | 17.4   | .....  | 122.9                            | 39.3            | 63.6                   | 122.9                            | 130.3                  | 54.1                    | 213.9                              | 122.9           | 211.5                          | 120.5                          |  |
| Lawrence, Mass.         | 62,559      | 62,414    | 23.2                                 | 20.2   | 33.6   | 39.7                             | 36.9            | 12.8                   | 264.4                            | 200.9                  | 54.5                    | 157.0                              | 201.0           | 130.1                          | 34.9                           |  |
| Lincoln, Nebr.          | 40,169      | 39,324    | 11.8                                 | 11.6   | 2.5  | 15.3                             | 17.3            | 33.1                   | 89.0                             | 119.5                  | 48.3                    | 91.5                               | 114.4           | 162.3                          | 53.4                           |  |
| Los Angeles, Cal.       | 102,479     | 98,032    | 18.1                                 | 17.9   | .....  | 0.5                              | 45.9            | 16.3                   | 69.3                             | 352.4                  | 73.5                    | 122.3                              | 124.4           | 197.3                          | 115.2                          |  |
| Louisville, Ky.         | 204,731     | 105,590   | 23.0                                 | 17.0   | 13.9   | 21.7                             | 9.1             | 70.1                   | 91.8                             | 192.6                  | 76.1                    | 105.1                              | 149.2           | 227.1                          | 91.2                           |  |
| Lowell, Mass.           | 94,959      | 94,774    | 19.3                                 | 19.3   | 11.6   | 35.9                             | 34.8            | 19.0                   | 232.8                            | 189.9                  | 54.0                    | 132.5                              | 212.1           | 254.3                          | 73.3                           |  |
| Lynn, Mass.             | 68,513      | 67,664    | 16.4                                 | 16.4   | 8.9  | 35.5                             | 42.9            | 17.7                   | 136.0                            | 193.6                  | 91.6                    | 128.6                              | 152.2           | 187.7                          | 91.6                           |  |
| McKeesport, Pa.         | 34,227      | 33,476    | 17.3                                 | 17.1   | .....  | 83.6                             | 9.0             | 93.8                   | 176.2                            | 101.6                  | 32.9                    | 89.6                               | 271.8           | 247.9                          | 56.7                           |  |
| Malden, Mass.           | 33,634      | 33,193    | 14.4                                 | 14.5   | .....  | 36.2                             | 43.2            | 15.1                   | 123.5                            | 156.7                  | 66.3                    | 135.6                              | 105.4           | 204.9                          | 93.4                           |  |
| Manchester, N. H.       | 56,937      | 56,326    | 19.2                                 | 19.2   | 8.8  | 24.6                             | 8.8             | 10.5                   | 203.8                            | 205.6                  | 36.9                    | 140.5                              | 210.6           | 247.7                          | 50.7                           |  |
| Memphis, Tenn.          | 102,320     | 52,330    | 25.1                                 | 21.9   | 51.5   | 22.9                             | 45.8            | 43.9                   | 232.9                            | 169.9                  | 45.8                    | 112.6                              | 263.5           | 179.6                          | 126.0                          |  |
| Meriden town, Conn.     | 28,695      | 28,470    | 14.3                                 | 14.3   | 3.5  | 14.0                             | 77.3            | 17.6                   | 119.4                            | 163.6                  | 30.8                    | 87.8                               | 154.5           | 200.2                          | 59.7                           |  |
| Milwaukee, Wis.         | 235,315     | 234,431   | 15.9                                 | 16.3   | 6.3  | 43.2                             | 1.8             | 13.3                   | 133.2                            | 149.1                  | 67.5                    | 115.7                              | 150.3           | 209.9                          | 54.8                           |  |
| Minneapolis, Minn.      | 202,718     | 201,113   | 20.8                                 | 17.7   | 1.5  | 33.3                             | 7.0             | 40.8                   | 57.7                             | 123.3                  | 43.2                    | 81.0                               | 96.0            | 124.3                          | 63.1                           |  |
| Mobile, Ala.            | 38,469      | 21,402    | 25.9                                 | 21.9   | .....  | 9.3                              | 13.7            | 60.7                   | 191.6                            | 271.0                  | 112.1                   | 196.2                              | 88.8            | 336.4                          | 163.5                          |  |
| Nashville, Tenn.        | 30,865      | 50,796    | 25.3                                 | 20.8   | 5.9  | 33.9                             | 49.2            | 45.3                   | 167.3                            | 222.5                  | 51.2                    | 106.3                              | 203.7           | 271.7                          | 34.7                           |  |
| New Bedford, Mass.      | 62,442      | 60,633    | 18.5                                 | 18.6   | 8.3  | 24.7                             | 18.1            | 24.7                   | 105.3                            | 146.4                  | 82.5                    | 146.8                              | 179.3           | 273.3                          | 110.5                          |  |
| New Britain town, Conn. | 28,202      | 28,067    | 17.1                                 | 17.2   | 3.6  | 74.8                             | 110.4           | 3.6                    | 178.1                            | 149.6                  | 39.2                    | 89.1                               | 133.8           | 199.5                          | 67.7                           |  |
| New Haven, Conn.        | 103,027     | 135,933   | 17.2                                 | 15.3   | 3.8  | 20.0                             | 41.9            | 29.5                   | 111.4                            | 133.7                  | 75.2                    | 128.5                              | 190.4           | 214.2                          | 106.6                          |  |
| New Orleans, La.        | 237,104     | 203,946   | 23.9                                 | 23.3   | 29.2   | 10.6                             | 13.2            | 53.9                   | 253.0                            | 256.0                  | 63.9                    | 156.2                              | 137.6           | 233.6                          | 163.5                          |  |
| New York city, N. Y.    | 3,437,202   | 3,383,898 | 20.4                                 | 20.3   | 23.2   | 66.9                             | 15.5            | 17.3                   | 185.4                            | 237.1                  | 65.3                    | 127.3                              | 320.2           | 175.6                          | 153.9                          |  |
| Bronx borough.          | 200,507     | 197,923   | 18.1                                 | 17.9   | 35.9   | 54.1                             | 8.1             | 10.1                   | 150.1                            | 245.0                  | 55.1                    | 119.2                              | 263.3           | 176.3                          | 124.3                          |  |
| Brooklyn borough.       | 1,106,532   | 1,140,909 | 19.9                                 | 19.3   | 22.1   | 72.3                             | 16.7            | 21.1                   | 209.3                            | 220.2                  | 61.1                    | 134.5                              | 235.3           | 177.1                          | 154.3                          |  |
| Manhattan borough.      | 1,350,613   | 1,308,963 | 21.3                                 | 21.1   | 23.3   | 66.3                             | 15.8            | 14.9                   | 172.2                            | 254.4                  | 70.0                    | 127.1                              | 237.1           | 173.0                          | 137.3                          |  |
| Queens borough.         | 162,939     | 150,255   | 17.3                                 | 17.2   | 8.0  | 43.6                             | 13.3            | 23.3                   | 213.7                            | 156.4                  | 45.3                    | 94.5                               | 231.0           |                                |                                |  |

TABLE 3.—POPULATION AND GROSS DEATH RATE, WITH DEATH RATES FROM CERTAIN PRINCIPAL DISEASES, BY COLOR, CENSUS YEAR: 1900—Continued.

| CITY.                | POPULATION. |           | DEATH RATES PER 1,000 OF POPULATION. |        | DEATH RATES PER 100,000 OF WHITE POPULATION. |                       |            |                |                       |                |                   |                           |             |                          |                          |
|----------------------|-------------|-----------|--------------------------------------|--------|--|-----------------------|------------|----------------|-----------------------|----------------|-------------------|---------------------------|-------------|--------------------------|--------------------------|
|                      | Total.      | White.    | Total.                               | White. | Measles.                                     | Diphtheria and croup. | Influenza. | Typhoid fever. | Diar-rheal dis-eases. | Con-sump-tion. | Cancer and tumor. | Heart disease and dropsy. | Pneu-monia. | Diseases nervous system. | Diseases urinary system. |
|                      |             |           |                                      |        |  |                       |            |                |                       |                |                   |                           |             |                          |                          |
| Oakland, Cal.        | 66,960      | 64,788    | 16.7                                 | 16.8   | 4.6  | 13.9                  | 13.9       | 32.4           | 52.5                  | 203.7          | 34.2              | 233.1                     | 123.7       | 243.9                    | 67.9                     |
| Omaha, Nebr.         | 102,565     | 99,039    | 13.5                                 | 13.2   | 3.0  | 33.3                  | 11.1       | 33.4           | 87.9                  | 101.0          | 35.4              | 73.7                      | 152.5       | 164.6                    | 55.6                     |
| Passaic, N. J.       | 27,777      | 27,313    | 20.3                                 | 20.0   | 25.6   | 29.3                  | 18.3       | 36.6           | 230.2                 | 142.8          | 68.6              | 76.9                      | 259.9       | 266.3                    | 33.0                     |
| Paterson, N. J.      | 105,171     | 103,859   | 19.0                                 | 18.3   | 5.8  | 97.2                  | 8.7        | 29.8           | 160.8                 | 178.1          | 53.0              | 126.5                     | 217.6       | 259.0                    | 115.5                    |
| Pawtucket, R. I.     | 39,231      | 39,029    | 18.4                                 | 18.5   | 20.7   | 23.1                  | 179.4      | 17.9           | 133.2                 | 131.9          | 61.5              | 174.2                     | 133.2       | 171.7                    | 92.2                     |
| Philadelphia, Pa.    | 1,293,697   | 1,229,672 | 21.2                                 | 20.7   | 22.5   | 93.7                  | 10.8       | 37.2           | 114.7                 | 234.7          | 72.6              | 157.0                     | 231.7       | 254.6                    | 146.4                    |
| Pittsburg, Pa.       | 321,616     | 304,421   | 20.0                                 | 19.7   | 27.6   | 39.7                  | 145.5      | 196.4          | 121.5                 | 43.4           | 97.2              | 246.4                     | 197.4       | 64.7                     |                          |
| Portland, Me.        | 50,135      | 49,822    | 21.9                                 | 21.9   | 4.0  | 44.2                  | 20.1       | 42.2           | 102.4                 | 230.8          | 93.4              | 160.6                     | 210.8       | 337.4                    | 174.6                    |
| Portland, Oreg.      | 90,426      | 80,614    | 9.5                                  | 10.0   | 2.5  | 13.1                  | 5.0        | 24.8           | 74.4                  | 105.4          | 60.8              | 95.5                      | 45.9        | 131.5                    | 50.9                     |
| Providence, R. I.    | 175,597     | 170,508   | 19.9                                 | 19.7   | 67.4   | 29.9                  | 72.1       | 29.3           | 164.2                 | 216.4          | 70.4              | 125.5                     | 217.5       | 264.2                    | 141.9                    |
| Pueblo, Colo.        | 23,157      | 23,856    | 23.0                                 | 22.9   | 14.9   | 55.8                  | 107.8      | 137.6          | 327.2                 | 22.3           | 104.1             | 235.0                     | 356.9       | 44.6                     |                          |
| Quincy, Ill.         | 36,252      | 34,213    | 15.3                                 | 15.2   | 2.9  | 40.9                  | 5.8        | 23.4           | 93.5                  | 160.8          | 61.4              | 131.5                     | 137.4       | 201.7                    | 52.6                     |
| Reading, Pa.         | 73,961      | 73,414    | 17.7                                 | 17.6   | 103.3  | 20.4                  | 44.6       | 91.8           | 170.9                 | 57.4           | 169.6             | 132.6                     | 294.6       | 75.2                     |                          |
| Richmond, Va.        | 85,060      | 82,798    | 29.7                                 | 24.5   | 1.9  | 5.7                   | 34.1       | 79.5           | 231.1                 | 293.6          | 70.1              | 131.8                     | 185.6       | 356.1                    | 132.6                    |
| Rochester, N. Y.     | 102,003     | 161,934   | 15.0                                 | 15.0   | 3.1  | 28.4                  | 5.6        | 23.5           | 90.7                  | 161.9          | 72.2              | 157.4                     | 133.3       | 214.2                    | 136.2                    |
| Sacramento, Cal.     | 29,282      | 27,476    | 24.7                                 | 23.4   | 3.6  | 32.8                  | 21.8       | 40.0           | 65.8                  | 238.4          | 91.6              | 192.9                     | 167.4       | 316.6                    | 103.2                    |
| Saginaw, Mich.       | 42,345      | 41,994    | 13.2                                 | 13.2   | 9.5  | 16.7                  | 7.1        | 38.1           | 57.2                  | 97.6           | 73.8              | 171.5                     | 119.1       | 156.7                    | 31.0                     |
| St. Joseph, Mo.      | 102,979     | 96,712    | 9.1                                  | 8.6    | 2.1  | 41.4                  | 4.1        | 35.2           | 69.8                  | 78.6           | 20.7              | 71.3                      | 65.1        | 102.4                    | 33.1                     |
| St. Louis, Mo.       | 575,238     | 539,335   | 17.9                                 | 17.0   | 3.0  | 54.9                  | 8.7        | 31.7           | 103.1                 | 177.1          | 58.6              | 105.8                     | 173.9       | 182.1                    | 110.3                    |
| St. Paul, Minn.      | 163,065     | 160,764   | 9.7                                  | 9.6    | 0.6  | 31.7                  | 3.1        | 22.4           | 52.3                  | 125.0          | 52.9              | 72.2                      | 80.9        | 135.6                    | 66.6                     |
| Salem, Mass.         | 35,956      | 35,749    | 21.9                                 | 21.9   | 2.8  | 44.8                  | 58.7       | 19.6           | 249.0                 | 156.6          | 111.9             | 156.6                     | 195.8       | 307.7                    | 95.1                     |
| Salt Lake City, Utah | 53,631      | 53,017    | 16.0                                 | 15.7   | 3.8  | 7.7                   | 7.5        | 30.2           | 109.4                 | 101.9          | 52.3              | 145.2                     | 133.0       | 143.4                    | 28.7                     |
| San Antonio, Tex.    | 53,321      | 45,722    | 23.6                                 | 23.8   | 28.4   | 30.6                  | 26.2       | 39.9           | 323.7                 | 444.0          | 61.2              | 124.7                     | 30.9        | 133.1                    | 100.6                    |
| San Francisco, Cal.  | 342,732     | 325,373   | 20.5                                 | 19.7   | 2.3  | 26.7                  | 3.3        | 30.9           | 39.1                  | 269.5          | 114.0             | 221.9                     | 187.4       | 132.6                    | 111.6                    |
| Savannah, Ga.        | 54,244      | 26,199    | 34.3                                 | 24.7   | 7.7  | 31.5                  | 111.1      | 33.8           | 191.5                 | 245.7          | 49.8              | 157.0                     | 149.4       | 233.4                    | 118.7                    |
| Schenectady, N. Y.   | 31,632      | 31,523    | 15.1                                 | 15.1   | 17.6   | 6.3                   | 31.7       | 104.7          | 111.0                 | 111.0          | 41.2              | 107.8                     | 117.4       | 260.1                    | 76.1                     |
| Scranton, Pa.        | 102,026     | 101,437   | 20.7                                 | 20.7   | 2.0  | 193.0                 | 13.8       | 39.6           | 157.7                 | 112.3          | 43.4              | 114.3                     | 220.7       | 238.7                    | 93.5                     |
| Seattle, Wash.       | 83,671      | 76,315    | 11.1                                 | 11.3   | 1.3  | 13.2                  | 7.8        | 37.8           | 37.3                  | 217.2          | 63.8              | 114.6                     | 144.5       | 112.0                    | 35.1                     |
| Sioux City, Iowa     | 33,111      | 32,826    | 13.1                                 | 13.2   | 3.0  | 64.0                  | 6.1        | 39.6           | 67.0                  | 113.8          | 42.6              | 106.6                     | 83.3        | 167.3                    | 37.9                     |
| Somerville, Mass.    | 61,643      | 61,435    | 15.3                                 | 15.4   | 3.3  | 42.3                  | 48.3       | 27.7           | 37.9                  | 179.1          | 63.5              | 146.5                     | 180.7       | 197.0                    | 63.4                     |
| Spokane, Wash.       | 36,318      | 36,101    | 13.9                                 | 14.0   | 2.3  | 11.1                  | 2.3        | 52.6           | 133.5                 | 127.4          | 41.6              | 141.3                     | 119.1       | 133.5                    | 69.3                     |
| Springfield, Ill.    | 34,159      | 31,325    | 18.3                                 | 18.5   | 90.3   | 18.8                  | 56.4       | 122.2          | 194.2                 | 53.2           | 53.2              | 133.5                     | 94.0        | 253.7                    | 37.7                     |
| Springfield, Mass.   | 62,059      | 60,956    | 17.0                                 | 17.2   | 23.0   | 93.4                  | 52.5       | 29.5           | 93.5                  | 172.2          | 75.4              | 132.8                     | 175.6       | 130.4                    | 157.4                    |
| Superior, Wis.       | 31,091      | 30,363    | 11.3                                 | 11.3   | 22.7   | 22.7                  | 22.7       | 61.6           | 116.6                 | 200.4          | 48.6              | 51.8                      | 134.7       | 113.4                    | 35.6                     |
| Syracuse, N. Y.      | 103,374     | 107,330   | 13.3                                 | 13.3   | 2.3  | 21.4                  | 10.3       | 23.3           | 32.9                  | 133.3          | 39.1              | 97.8                      | 124.9       | 191.0                    | 93.2                     |
| Tacoma, Wash.        | 37,714      | 36,470    | 11.3                                 | 11.3   | 16.5   | 16.5                  | 16.5       | 16.5           | 139.8                 | 139.8          | 64.8              | 120.6                     | 71.3        | 112.4                    | 57.6                     |
| Taunton, Mass.       | 31,030      | 30,732    | 13.3                                 | 13.3   | 19.5   | 16.2                  | 26.0       | 9.7            | 172.1                 | 214.3          | 63.5              | 168.9                     | 207.8       | 360.5                    | 100.9                    |
| Terre Haute, Ind.    | 36,373      | 35,146    | 16.0                                 | 15.8   | 5.7  | 42.7                  | 14.2       | 59.8           | 63.3                  | 133.5          | 76.8              | 135.3                     | 132.3       | 173.6                    | 35.4                     |
| Toledo, Ohio         | 131,322     | 130,079   | 16.0                                 | 16.0   | 6.4  | 117.6                 | 26.1       | 39.2           | 135.3                 | 135.1          | 57.7              | 90.7                      | 111.5       | 249.8                    | 53.0                     |
| Trenton, N. J.       | 73,307      | 71,149    | 16.0                                 | 15.3   | 3.4  | 23.1                  | 36.5       | 35.1           | 37.1                  | 153.0          | 63.2              | 105.4                     | 231.6       | 230.1                    | 104.0                    |
| Troy, N. Y.          | 60,651      | 60,227    | 23.0                                 | 22.9   | 31.5   | 51.3                  | 19.9       | 33.0           | 171.0                 | 343.7          | 62.1              | 166.0                     | 232.2       | 267.3                    | 121.2                    |
| Utica, N. Y.         | 53,339      | 53,137    | 17.0                                 | 17.5   | 1.3  | 37.3                  | 23.2       | 14.3           | 53.3                  | 212.0          | 71.3              | 133.6                     | 130.6       | 231.6                    | 135.4                    |
| Washington, D. C.    | 273,713     | 191,532   | 22.8                                 | 19.1   | 14.1   | 79.9                  | 33.1       | 33.9           | 123.4                 | 210.4          | 33.5              | 173.3                     | 133.1       | 257.4                    | 127.7                    |
| Waterbury, Conn.     | 51,139      | 50,321    | 17.0                                 | 16.9   | 49.5   | 27.7                  | 31.7       | 39.6           | 205.9                 | 132.1          | 39.6              | 91.1                      | 196.0       | 165.4                    | 33.0                     |
| Wheeling, W. Va.     | 33,373      | 37,304    | 14.2                                 | 13.9   | 7.9  | 13.5                  | 13.5       | 33.5           | 33.9                  | 137.3          | 60.8              | 97.9                      | 129.6       | 133.4                    | 71.4                     |
| Wilkesbarre, Pa.     | 51,731      | 51,035    | 16.6                                 | 16.5   | 2.0  | 53.3                  | 15.7       | 25.6           | 111.7                 | 93.9           | 60.7              | 115.6                     | 132.0       | 243.3                    | 72.5                     |
| Williamsport, Pa.    | 28,737      | 27,313    | 12.0                                 | 11.7   | 14.5   | 25.4                  | 39.3       | 75.1           | 97.3                  | 97.3           | 39.2              | 37.8                      | 79.7        | 202.3                    | 61.6                     |
| Wilmington, Del.     | 76,538      | 66,733    | 20.3                                 | 20.1   | 4.5  | 133.4                 | 22.5       | 33.9           | 100.4                 | 212.3          | 65.9              | 137.3                     | 173.3       | 307.2                    | 39.9                     |
| Woonsocket, R. I.    | 23,204      | 23,151    | 13.3                                 | 13.3   | 7.1  | 35.5                  | 21.3       | 31.1           | 456.1                 | 131.0          | 24.8              | 38.7                      | 152.6       | 173.9                    | 99.4                     |
| Worcester, Mass.     | 113,421     | 117,236   | 15.5                                 | 15.6   | 12.3   | 38.4                  | 33.0       | 17.9           | 122.9                 | 132.6          | 63.1              | 127.1                     | 161.3       | 173.3                    | 73.5                     |
| Yonkers, N. Y.       | 47,931      | 46,373    | 13.3                                 | 13.1   | 2.1  | 12.3                  | 17.1       | 12.3           | 203.5                 | 211.2          | 55.5              | 155.7                     | 130.0       | 177.1                    | 35.3                     |
| Youngstown, Ohio     | 44,335      | 43,960    | 16.6                                 | 16.7   | 2.3  | 29.6                  | 4.5        | 116.0          | 177.4                 | 116.0          | 40.9              | 120.6                     | 204.7       | 179.7                    | 47.3                     |

| CITY.             | POPULATION. |          | DEATH RATES PER 1,000 OF POPULATION. |          | DEATH RATES PER 100,000 OF COLORED POPULATION. |                       |            |                |                       |                |                   |                           |             |                          |                          |
|-------------------|-------------|----------|--------------------------------------|----------|--|-----------------------|------------|----------------|-----------------------|----------------|-------------------|---------------------------|-------------|--------------------------|--------------------------|
|                   | Total.      | Colored. | Total.                               | Colored. | Measles.                                       | Diphtheria and croup. | Influenza. | Typhoid fever. | Diar-rheal dis-eases. | Con-sump-tion. | Cancer and tumor. | Heart disease and dropsy. | Pneu-monia. | Diseases nervous system. | Diseases urinary system. |
|                   |             |          |                                      |          |  |                       |            |                |                       |                |                   |                           |             |                          |                          |
| Atlanta, Ga.      | 33,372      | 35,732   | 20.6                                 | 31.5     | 22.4   | 67.1                  | 61.5       | 125.3          | 374.5                 | 505.5          | 27.9              | 245.9                     | 343.7       | 276.7                    | 63.9                     |
| Baltimore, Md.    | 503,957     | 79,739   | 21.0                                 | 31.2     | 15.0   | 71.5                  | 23.3       | 42.6           | 230.3                 | 447.7          | 62.7              | 186.9                     | 544.3       | 270.9                    | 155.3                    |
| Charleston, S. C. | 55,307      | 31,569   | 37.5                                 | 46.7     | 9.5  | 139.4                 | 142.5      | 506.3          | 674.7                 | 76.0           | 236.1             | 294.6                     | 522.7       | 592.4                    | 135.4                    |
| Louisville, Ky.   | 294,731     | 39,141   | 20.0                                 | 23.7     | 7.7  | 23.1                  | 23.0       | 36.9           | 125.2                 | 403.2          | 48.5              | 134.0                     | 360.2       | 347.5                    | 120.1                    |
| Memphis, Tenn.    | 102,320     | 49,940   | 25.1                                 | 23.6     | 36.0   | 12.0                  | 13.0       | 56.1           | 229.3                 | 373.5          | 22.0              | 143.2                     | 470.3       | 132.2                    | 136.1                    |
| Mobile, Ala.      | 33,469      | 17,067   | 25.9                                 | 30.3     | 5.9  | 11.7                  | 105.5      | 164.1          | 591.3                 | 35.2           | 233.7             | 237.1                     | 427.7       | 234.4                    |                          |
| Nashville, Tenn.  | 90,866      | 30,069   | 25.3                                 | 32.3     | 23.3   | 16.6                  | 33.2       | 216.2          | 633.5                 | 39.9           | 232.7             | 429.3                     | 325.9       | 75.5                     |                          |
| New Orleans, La.  | 237,104     | 73,153   | 23.9                                 | 42.4     | 23.0   | 10.2                  | 9.0        | 37.0           | 295.6                 | 629.5          | 48.6              | 291.7                     | 335.1       | 433.9                    | 254.6                    |
| Norfolk, Va.      | 46,324      | 20,307   | 25.2                                 | 33.5     | 4.9  | 33.9                  | 49.2       | 236.4          | 646.3                 | 24.6           | 300.4             | 320.1                     | 373.2       | 147.7                    |                          |
| Richmond, Va.     | 35,060      | 32,262   | 29.7                                 | 33.1     | 12.4   | 9.3                   | 62.0       | 74.4           | 307.0                 | 474.4          | 55.3              | 226.3                     | 437.2       | 511.6                    | 124.0                    |
| St. Louis, Mo.    | 575,238     | 35,353   | 17.9                                 | 32.2     | 13.9   | 19.5                  | 11.2       | 53.0           | 114.4                 | 594.1          | 30.7              | 220.3                     | 333.3       | 293.4                    | 306.3                    |
| San Antonio, Tex. | 53,321      | 7,599    | 23.6                                 | 22.4     | 13.2   | 39.5                  | 26.3       | 92.1           | 236.0                 | 565.9          | 39.5              | 92.1                      | 79.0        | 113.4                    | 92.1                     |
| Savannah, Ga.     | 54,244      | 23,135   | 34.3                                 | 43.3     | 3.6  | 7.1                   | 23.4       | 33.1           | 245.2                 | 529.0          | 53.3              | 305.7                     | 337.4       | 437.2                    | 145.7                    |
| Washington, D. C. | 273,713     | 87,136   | 22.8                                 | 31.0     | 12.6   | 65.4                  | 43.2       | 106.7          | 273.7                 | 513.3          | 64.2              | 279.9                     | 301.7       | 330.1                    | 131.9                    |

A comparison of the figures in this table will raise many questions that should be of vital interest to the people. St. Paul, with a population of 163,065, gives a death rate of 9.7 per 1,000 for the census year, and Minneapolis, with a population of 202,718, gives a death rate of 10.8, while the average death rate for cities of this size is about 17. If the death rates of St. Paul and Minneapolis are correct, it is a matter of very great interest to other large cities to know the cause of this. Is it due to peculiarities of race and age distribution in the population of these cities? An approximate answer to this question is given in the table on page xc of Part I of the Report on Vital Statistics of Twelfth Census. This table gives for some of the cities of 50,000 population and upward corrected death rates for the native white and colored population based on a standard distribution as to ages, and it should be studied by all who are interested in municipal mortality statistics. This table shows that the corrected death rate for St. Paul, on the basis of the age distribution of the native whites of native parentage, was for native whites of native parentage 11.2, for colored 12.6, and for Minneapolis 12.8 for native whites of native parentage and 21.2 for colored, the standard average for registration cities being 18.3 for native whites of native parentage and 36 for colored. The most probable inference is that all the deaths were not registered in St. Paul and Minneapolis during the census year, and that the figures for these cities are useless for comparison with other cities. The same may be said with regard to the death rates reported for Duluth, Minn., and for Seattle, Wash. On page lviii of Part I of the Vital Statistics of the Twelfth Census is a table giving the death rates of registration cities in 1890 and in 1900, respectively, showing in most cases a diminished death rate.

The comparison of the death rates of a city at ten-year intervals does not give results nearly so valuable or suggestive as does a comparison for a series of con-

secutive years. To make such comparisons it has been necessary heretofore for the investigator to consult the annual reports of the city, which is often difficult. Many cities do not publish such reports, although the data are recorded, and if results are wanted for a number of cities it becomes impossible to obtain them. Under the permanent organization of the Census Bureau it is proposed to obtain returns from the registration states and cities each year, which will be tabulated in a uniform manner and with considerable detail, and there will thus be formed and published a most valuable collection of data on municipal mortality statistics.

In the meantime, and for the present purpose of supplementing the data given in the Twelfth Census report with some results showing that the apparent decrease in the general death rate pointed out in that report has been real and progressive, in many of the cities probably due to improved methods of sanitation, hygiene, and health regulations, a special collection of data from a considerable number of the principal cities has been made through the courtesy of the registration officials.

The data include the total number of deaths registered in 83 cities of over 25,000 population, during each of the eleven years ending with the year 1900, and also the number of deaths in each year, of children under 5 years of age. This represents nearly all of the important cities in which the officials were able to supply the figures desired.

The figures have been reduced to death rates for each year by computing the population of the intervening years upon the basis of a geometrical progression from 1890 to 1900. It should be noted, therefore, that the death rates so calculated may not agree with the rates that may have been published during that period by the city authorities, as the latter were necessarily based upon an estimated population. The results are given in the following table:

TABLE 4.—POPULATION, DEATHS, AND DEATH RATES PER 1,000 POPULATION AT ALL AGES AND UNDER 5 YEARS OF AGE, IN EACH CALENDAR YEAR FOR CERTAIN SPECIFIED CITIES: 1890 TO 1900.

| CITY.                 | ALL AGES.   |         |             | UNDER 5 YEARS. |         |             | CITY.                        | ALL AGES.   |         |             | UNDER 5 YEARS. |         |             |
|-----------------------|-------------|---------|-------------|----------------|---------|-------------|------------------------------|-------------|---------|-------------|----------------|---------|-------------|
|                       | Population. | Deaths. | Death rate. | Population.    | Deaths. | Death rate. |                              | Population. | Deaths. | Death rate. | Population.    | Deaths. | Death rate. |
| <b>Albany, N. Y.:</b> |             |         |             |                |         |             | <b>Atlantic City, N. J.:</b> |             |         |             |                |         |             |
| 1890.....             | 94,923      | 2,279   | 24.0        | 8,499          | 684     | 74.6        | 1890.....                    | 13,055      | 261     | 20.0        | 1,176          | 110     | 93.5        |
| 1891.....             | 94,846      | 2,390   | 25.2        | 8,390          | 683     | 75.4        | 1891.....                    | 14,052      | 288     | 20.5        | 1,261          | 115     | 91.2        |
| 1892.....             | 94,768      | 2,565   | 27.1        | 8,282          | 847     | 102.3       | 1892.....                    | 15,101      | 304     | 20.1        | 1,352          | 102     | 75.4        |
| 1893.....             | 94,691      | 2,142   | 22.6        | 8,175          | 581     | 71.1        | 1893.....                    | 16,350      | 259     | 15.8        | 1,450          | 110     | 75.9        |
| 1894.....             | 94,613      | 2,180   | 23.0        | 8,070          | 649     | 80.4        | 1894.....                    | 17,550      | 315     | 17.8        | 1,554          | 117     | 75.3        |
| 1895.....             | 94,535      | 2,343   | 24.8        | 7,966          | 695     | 87.2        | 1895.....                    | 19,041      | 362     | 18.5        | 1,667          | 123     | 78.8        |
| 1896.....             | 94,457      | 2,108   | 22.3        | 7,863          | 570     | 72.5        | 1896.....                    | 20,545      | 394     | 17.7        | 1,787          | 150     | 83.9        |
| 1897.....             | 94,382      | 2,016   | 21.4        | 7,762          | 499     | 64.3        | 1897.....                    | 22,105      | 418     | 18.9        | 1,916          | 136     | 71.0        |
| 1898.....             | 94,306      | 1,904   | 20.2        | 7,662          | 465     | 60.7        | 1898.....                    | 23,914      | 363     | 15.2        | 2,054          | 141     | 68.6        |
| 1899.....             | 94,227      | 1,903   | 21.2        | 7,563          | 487     | 64.4        | 1899.....                    | 25,802      | 423     | 16.4        | 2,203          | 138     | 62.6        |
| 1900.....             | 94,151      | 1,789   | 19.0        | 7,466          | 412     | 55.2        | 1900.....                    | 27,888      | 497     | 17.9        | 2,362          | 171     | 72.4        |
| <b>Atlanta, Ga.:</b>  |             |         |             |                |         |             | <b>Auburn, N. Y.:</b>        |             |         |             |                |         |             |
| 1890.....             | 65,539      | 1,615   | 24.6        | 6,764          | 785     | 109.1       | 1890.....                    | 25,858      | 522     | 22.5        | 1,965          | 139     | 70.7        |
| 1891.....             | 67,639      | 1,633   | 24.0        | 6,581          | 697     | 96.2        | 1891.....                    | 26,276      | 510     | 19.4        | 2,030          | 92      | 46.0        |
| 1892.....             | 69,803      | 1,810   | 26.1        | 7,102          | 679     | 95.8        | 1892.....                    | 26,699      | 479     | 17.9        | 2,035          | 82      | 40.3        |
| 1893.....             | 72,048      | 1,638   | 22.7        | 7,277          | 672     | 92.3        | 1893.....                    | 27,130      | 508     | 18.7        | 2,072          | 123     | 59.4        |
| 1894.....             | 74,358      | 1,870   | 25.4        | 7,457          | 621     | 83.3        | 1894.....                    | 27,567      | 434     | 15.7        | 2,109          | 113     | 53.6        |
| 1895.....             | 76,744      | 1,813   | 23.6        | 7,641          | 600     | 78.5        | 1895.....                    | 28,076      | 487     | 16.6        | 2,147          | 92      | 42.9        |
| 1896.....             | 79,206      | 1,861   | 23.5        | 7,820          | 721     | 92.1        | 1896.....                    | 28,464      | 402     | 16.2        | 2,185          | 112     | 51.3        |
| 1897.....             | 81,743      | 1,826   | 22.3        | 8,022          | 617     | 76.9        | 1897.....                    | 28,928      | 403     | 16.0        | 2,226          | 84      | 37.5        |
| 1898.....             | 84,371      | 1,891   | 22.4        | 8,220          | 612     | 74.5        | 1898.....                    | 29,389      | 403     | 13.7        | 2,264          | 95      | 42.0        |
| 1899.....             | 87,073      | 2,242   | 25.7        | 8,423          | 774     | 91.9        | 1899.....                    | 29,863      | 487     | 16.3        | 2,305          | 108     | 44.7        |
| 1900.....             | 89,372      | 1,980   | 21.5        | 8,631          | 559     | 64.8        | 1900.....                    | 30,345      | 520     | 17.1        | 2,346          | 138     | 58.8        |

TABLE 4.—POPULATION, DEATHS, AND DEATH RATES PER 1,000 POPULATION AT ALL AGES AND UNDER 5 YEARS OF AGE, IN EACH CALENDAR YEAR FOR CERTAIN SPECIFIED CITIES: 1890 TO 1900—Continued.

| CITY.                     | ALL AGES.   |         |             | UNDER 5 YEARS. |         |             | CITY.                     | ALL AGES.   |         |             | UNDER 5 YEARS. |         |             |
|---------------------------|-------------|---------|-------------|----------------|---------|-------------|---------------------------|-------------|---------|-------------|----------------|---------|-------------|
|                           | Population. | Deaths. | Death rate. | Population.    | Deaths. | Death rate. |                           | Population. | Deaths. | Death rate. | Population.    | Deaths. | Death rate. |
| <b>Baltimore, Md.:</b>    |             |         |             |                |         |             | <b>Camden, N. J.:</b>     |             |         |             |                |         |             |
| 1890                      | 434,439     | 19,198  | 23.5        | 46,081         | 4,177   | 90.6        | 1890                      | 58,313      | 1,349   | 23.1        | 5,987          | 559     | 98.4        |
| 1891                      | 441,371     | 19,078  | 22.8        | 46,503         | 3,510   | 84.1        | 1891                      | 59,871      | 1,407   | 23.5        | 6,151          | 608     | 98.8        |
| 1892                      | 448,414     | 19,582  | 23.6        | 46,933         | 4,443   | 94.7        | 1892                      | 61,476      | 1,534   | 25.0        | 6,321          | 658     | 104.1       |
| 1893                      | 455,569     | 9,564   | 21.0        | 47,369         | 3,604   | 76.1        | 1893                      | 63,121      | 1,357   | 21.6        | 6,494          | 662     | 96.5        |
| 1894                      | 462,839     | 9,486   | 20.5        | 47,807         | 3,761   | 78.7        | 1894                      | 64,810      | 1,463   | 22.6        | 6,673          | 687     | 103.0       |
| 1895                      | 470,224     | 10,301  | 21.9        | 48,243         | 4,026   | 83.4        | 1895                      | 66,514      | 1,401   | 21.1        | 6,856          | 694     | 86.0        |
| 1896                      | 477,727     | 9,919   | 20.8        | 48,694         | 3,728   | 76.6        | 1896                      | 68,323      | 1,283   | 18.9        | 7,044          | 510     | 72.4        |
| 1897                      | 485,350     | 9,329   | 19.2        | 49,143         | 3,510   | 71.4        | 1897                      | 70,151      | 1,357   | 19.3        | 7,238          | 534     | 73.8        |
| 1898                      | 493,095     | 10,385  | 21.1        | 49,597         | 3,939   | 79.4        | 1898                      | 72,028      | 1,189   | 16.5        | 7,437          | 463     | 62.7        |
| 1899                      | 500,963     | 10,152  | 20.3        | 50,055         | 3,319   | 66.3        | 1899                      | 73,957      | 1,308   | 17.7        | 7,641          | 479     | 62.7        |
| 1900                      | 508,957     | 10,700  | 21.0        | 50,517         | 3,391   | 67.1        | 1900                      | 75,986      | 1,299   | 17.1        | 7,861          | 479     | 59.9        |
| <b>Bayonne, N. J.:</b>    |             |         |             |                |         |             | <b>Charleston, S. C.:</b> |             |         |             |                |         |             |
| 1890                      | 19,033      | 337     | 20.3        | 2,463          | 216     | 87.8        | 1890                      | 54,955      | 1,321   | 33.1        | 6,740          | 665     | 115.9       |
| 1891                      | 20,090      | 412     | 20.5        | 2,624          | 199     | 75.8        | 1891                      | 55,040      | 1,324   | 35.0        | 6,938          | 712     | 125.1       |
| 1892                      | 21,211      | 452     | 21.3        | 2,793          | 220     | 78.6        | 1892                      | 55,121      | 1,303   | 34.5        | 6,646          | 694     | 122.9       |
| 1893                      | 22,392      | 445     | 19.9        | 2,984          | 215     | 72.1        | 1893                      | 55,208      | 1,319   | 32.9        | 6,600          | 681     | 103.8       |
| 1894                      | 23,639      | 459     | 19.8        | 3,183          | 225     | 70.7        | 1894                      | 55,294      | 1,779   | 32.2        | 6,554          | 639     | 119.4       |
| 1895                      | 24,955      | 447     | 17.9        | 3,394          | 228     | 65.7        | 1895                      | 55,379      | 1,897   | 35.2        | 6,508          | 635     | 115.8       |
| 1896                      | 26,345      | 501     | 19.0        | 3,629          | 251     | 69.3        | 1896                      | 55,465      | 1,869   | 33.7        | 6,403          | 660     | 120.8       |
| 1897                      | 27,312      | 440     | 15.8        | 3,861          | 169     | 43.8        | 1897                      | 55,550      | 1,593   | 28.7        | 6,418          | 437     | 78.8        |
| 1898                      | 29,361      | 509     | 17.3        | 4,117          | 258     | 62.7        | 1898                      | 55,636      | 1,749   | 31.4        | 6,374          | 563     | 102.9       |
| 1899                      | 30,997      | 525     | 16.9        | 4,391          | 254     | 57.8        | 1899                      | 55,721      | 1,703   | 30.6        | 6,330          | 583     | 103.4       |
| 1900                      | 32,722      | 669     | 17.4        | 4,688          | 256     | 54.7        | 1900                      | 55,807      | 1,720   | 30.9        | 6,286          | 515     | 97.4        |
| <b>Binghamton, N. Y.:</b> |             |         |             |                |         |             | <b>Chelsea, Mass.:</b>    |             |         |             |                |         |             |
| 1890                      | 35,005      | 540     | 15.4        | 2,914          | 128     | 43.9        | 1890                      | 27,900      | 568     | 20.4        | 2,586          | 144     | 55.8        |
| 1891                      | 35,444      | 668     | 18.8        | 2,916          | 145     | 49.7        | 1891                      | 28,471      | 678     | 23.8        | 2,687          | 229     | 85.8        |
| 1892                      | 35,888      | 667     | 18.6        | 2,917          | 164     | 56.2        | 1892                      | 29,045      | 650     | 22.4        | 2,743          | 219     | 79.8        |
| 1893                      | 36,337      | 622     | 17.1        | 2,919          | 172     | 58.9        | 1893                      | 29,621      | 632     | 21.3        | 2,852          | 185     | 64.9        |
| 1894                      | 36,793      | 584     | 15.9        | 2,920          | 143     | 49.0        | 1894                      | 30,228      | 705     | 23.3        | 2,966          | 246     | 82.9        |
| 1895                      | 37,254      | 519     | 13.9        | 2,922          | 119     | 40.7        | 1895                      | 30,837      | 630     | 20.6        | 3,084          | 221     | 71.7        |
| 1896                      | 37,721      | 492     | 13.0        | 2,924          | 127     | 43.4        | 1896                      | 31,456      | 604     | 19.2        | 3,207          | 201     | 63.3        |
| 1897                      | 38,193      | 498     | 13.0        | 2,926          | 105     | 35.9        | 1897                      | 32,072      | 637     | 19.8        | 3,330          | 219     | 68.1        |
| 1898                      | 38,672      | 584     | 15.1        | 2,928          | 127     | 43.4        | 1898                      | 32,689      | 620     | 18.9        | 3,463          | 219     | 68.1        |
| 1899                      | 39,156      | 679     | 17.3        | 2,929          | 110     | 37.6        | 1899                      | 33,322      | 651     | 18.0        | 3,607          | 177     | 49.1        |
| 1900                      | 39,647      | 822     | 20.7        | 2,931          | 144     | 49.1        | 1900                      | 34,072      | 648     | 19.0        | 3,751          | 214     | 57.1        |
| <b>Boston, Mass.:</b>     |             |         |             |                |         |             | <b>Chicago, Ill.:</b>     |             |         |             |                |         |             |
| 1890                      | 448,477     | 10,126  | 22.6        | 40,061         | 3,847   | 88.7        | 1890                      | 1,099,850   | 21,856  | 19.9        | 140,788        | 9,951   | 70.7        |
| 1891                      | 458,621     | 10,530  | 23.0        | 41,469         | 3,603   | 86.9        | 1891                      | 1,148,793   | 27,754  | 24.2        | 145,995        | 12,801  | 88.2        |
| 1892                      | 468,995     | 11,221  | 23.9        | 42,891         | 3,798   | 88.9        | 1892                      | 1,199,790   | 30,210  | 25.3        | 149,195        | 11,662  | 78.2        |
| 1893                      | 479,638     | 11,616  | 24.4        | 44,369         | 3,957   | 88.8        | 1893                      | 1,253,022   | 37,083  | 29.6        | 154,118        | 12,969  | 80.2        |
| 1894                      | 490,461     | 11,627  | 23.6        | 46,205         | 4,112   | 89.0        | 1894                      | 1,308,682   | 43,892  | 33.5        | 158,836        | 11,019  | 69.4        |
| 1895                      | 501,645     | 11,380  | 22.6        | 47,901         | 3,945   | 82.4        | 1895                      | 1,366,818   | 44,210  | 32.4        | 163,703        | 10,462  | 63.8        |
| 1896                      | 512,869     | 11,648  | 22.7        | 49,659         | 4,058   | 81.7        | 1896                      | 1,427,527   | 53,257  | 37.3        | 168,719        | 10,713  | 67.6        |
| 1897                      | 524,498     | 11,163  | 21.3        | 51,482         | 3,725   | 72.4        | 1897                      | 1,490,937   | 61,809  | 41.6        | 173,684        | 8,548   | 49.1        |
| 1898                      | 536,354     | 10,903  | 20.3        | 53,371         | 3,589   | 67.2        | 1898                      | 1,557,164   | 72,793  | 46.8        | 179,210        | 8,135   | 45.4        |
| 1899                      | 548,486     | 11,174  | 20.4        | 55,330         | 3,612   | 65.3        | 1899                      | 1,626,333   | 85,503  | 52.0        | 184,698        | 8,850   | 48.1        |
| 1900                      | 560,892     | 11,671  | 20.8        | 57,361         | 3,749   | 65.4        | 1900                      | 1,698,676   | 94,911  | 55.9        | 190,955        | 8,288   | 43.5        |
| <b>Bridgeport, Conn.:</b> |             |         |             |                |         |             | <b>Cincinnati, Ohio:</b>  |             |         |             |                |         |             |
| 1890                      | 48,866      | 914     | 18.7        | 4,725          | 321     | 67.9        | 1890                      | 296,908     | 6,441   | 21.7        | 31,836         | 2,387   | 76.2        |
| 1891                      | 50,726      | 976     | 19.2        | 4,951          | 344     | 69.5        | 1891                      | 299,637     | 6,695   | 22.3        | 31,181         | 2,188   | 70.2        |
| 1892                      | 52,657      | 955     | 18.1        | 5,183          | 301     | 58.0        | 1892                      | 302,493     | 6,015   | 19.9        | 31,027         | 2,107   | 67.9        |
| 1893                      | 54,661      | 1,033   | 19.0        | 5,436          | 408     | 75.1        | 1893                      | 305,324     | 5,892   | 19.3        | 30,874         | 2,146   | 69.5        |
| 1894                      | 56,741      | 900     | 15.9        | 5,696          | 390     | 68.6        | 1894                      | 308,182     | 5,945   | 19.3        | 30,721         | 2,007   | 65.3        |
| 1895                      | 58,901      | 1,044   | 17.7        | 5,989          | 465     | 77.7        | 1895                      | 311,037     | 6,092   | 19.6        | 30,569         | 1,972   | 64.5        |
| 1896                      | 61,142      | 1,144   | 18.7        | 6,254          | 498     | 79.3        | 1896                      | 313,970     | 6,915   | 22.0        | 30,418         | 1,864   | 61.3        |
| 1897                      | 63,470      | 1,003   | 15.8        | 6,554          | 349     | 53.2        | 1897                      | 316,928     | 6,565   | 20.7        | 30,288         | 1,718   | 56.5        |
| 1898                      | 65,885      | 1,076   | 16.3        | 6,867          | 348     | 50.7        | 1898                      | 319,885     | 5,585   | 17.5        | 30,118         | 1,693   | 54.2        |
| 1899                      | 68,393      | 1,076   | 15.7        | 7,196          | 367     | 51.0        | 1899                      | 322,880     | 6,000   | 18.6        | 29,939         | 1,623   | 54.2        |
| 1900                      | 70,996      | 1,262   | 17.8        | 7,540          | 465     | 60.8        | 1900                      | 325,902     | 6,472   | 19.9        | 29,821         | 1,388   | 46.5        |
| <b>Brockton, Mass.:</b>   |             |         |             |                |         |             | <b>Cleveland, Ohio:</b>   |             |         |             |                |         |             |
| 1890                      | 27,294      | 444     | 16.3        | 2,836          | 189     | 70.1        | 1890                      | 261,358     | 5,058   | 19.4        | 31,003         | 2,337   | 75.2        |
| 1891                      | 28,362      | 410     | 14.5        | 2,802          | 151     | 53.9        | 1891                      | 271,447     | 5,204   | 19.2        | 32,032         | 2,308   | 72.1        |
| 1892                      | 29,472      | 418     | 14.1        | 2,913          | 111     | 38.1        | 1892                      | 281,930     | 6,227   | 22.1        | 33,032         | 2,266   | 68.6        |
| 1893                      | 30,625      | 476     | 15.5        | 3,027          | 167     | 55.2        | 1893                      | 292,319     | 6,261   | 21.4        | 34,063         | 2,276   | 66.8        |
| 1894                      | 31,823      | 483     | 15.2        | 3,146          | 136     | 43.2        | 1894                      | 304,128     | 6,689   | 22.0        | 35,126         | 2,306   | 79.9        |
| 1895                      | 33,068      | 490     | 15.0        | 3,270          | 160     | 48.9        | 1895                      | 315,874     | 6,177   | 19.6        | 36,222         | 2,074   | 57.3        |
| 1896                      | 34,361      | 614     | 17.9        | 3,399          | 222     | 65.3        | 1896                      | 328,073     | 4,860   | 14.8        | 37,352         | 2,056   | 55.0        |
| 1897                      | 35,706      | 483     | 13.5        | 3,533          | 178     | 50.4        | 1897                      | 340,744     | 6,007   | 17.6        | 38,518         | 2,000   | 51.9        |
| 1898                      | 37,103      | 462     | 12.5        | 3,672          | 143     | 38.9        | 1898                      | 353,004     | 6,040   | 17.1        | 39,720         | 1,922   | 47.6        |
| 1899                      | 38,555      | 462     | 12.0        | 3,817          | 139     | 36.4        | 1899                      | 365,672     | 6,566   | 18.0        | 40,960         | 1,996   | 48.7        |
| 1900                      | 40,063      | 556     | 13.9        | 3,967          | 162     | 40.8        | 1900                      | 361,768     | 6,104   | 16.6        | 42,238         | 2,343   | 55.5        |
| <b>Buffalo, N. Y.:</b>    |             |         |             |                |         |             | <b>Columbus, Ohio:</b>    |             |         |             |                |         |             |
| 1890                      | 255,664     | 5,024   | 19.7        | 32,908         | 2,804   | 70.0        | 1890                      | 88,150      | 1,356   | 15.4        | 8,273          | 440     | 53.2        |
| 1891                      | 261,000     | 6,001   | 22.7        | 33,654         | 2,609   | 77.5        | 1891                      | 91,824      | 1,414   | 15.5        | 8,442          | 381     | 45.1        |
| 1892                      | 272,000     | 5,851   | 21.5        | 34,417         | 2,524   | 73.3        | 1892                      | 94,612      | 1,265   | 13.4        | 8,615          | 344     | 39.9        |
| 1893                      | 281,488     | 5,870   | 20.9        | 35,193         | 2,727   | 77.4        | 1893                      | 98,019      | 1,435   | 14.9        | 8,791          | 399     | 45.4        |
| 1894                      | 290,676     | 5,555   | 19.1        | 35,996         | 2,533   | 70.4        | 1894                      | 101,543     | 1,308   | 12.9        | 8,971          | 424     | 47.3        |
| 1895                      | 300,154     | 5,032   | 16.8        | 36,812         | 2,318   | 63.0        | 1895                      | 105,205     | 1,524   | 14.5        | 9,155          | 441     | 48.2        |
| 1896                      | 309,942     | 4,802   | 15.7        | 37,647         | 2,205   | 58.6        | 1896                      | 108,993</   |         |             |                |         |             |

TABLE 4.—POPULATION, DEATHS, AND DEATH RATES PER 1,000 POPULATION AT ALL AGES AND UNDER 5 YEARS OF AGE, IN EACH CALENDAR YEAR FOR CERTAIN SPECIFIED CITIES: 1890 TO 1900—Continued.

| CITY.                     | ALL AGES.   |         |             | UNDER 5 YEARS. |         |             | CITY.                      | ALL AGES.   |         |             | UNDER 5 YEARS. |         |             |
|---------------------------|-------------|---------|-------------|----------------|---------|-------------|----------------------------|-------------|---------|-------------|----------------|---------|-------------|
|                           | Population. | Deaths. | Death rate. | Population.    | Deaths. | Death rate. |                            | Population. | Deaths. | Death rate. | Population.    | Deaths. | Death rate. |
| <b>Dayton, Ohio:</b>      |             |         |             |                |         |             | <b>Gloucester, Mass.:</b>  |             |         |             |                |         |             |
| 1890.....                 | 61,220      | 1,087   | 16.9        | 6,286          | 380     | 60.5        | 1890.....                  | 24,651      | 424     | 17.2        | 2,121          | 121     | 57.0        |
| 1891.....                 | 63,286      | 1,141   | 18.0        | 6,423          | 293     | 45.6        | 1891.....                  | 24,794      | 419     | 16.9        | 2,166          | 127     | 58.6        |
| 1892.....                 | 65,424      | 1,067   | 16.3        | 6,562          | 322     | 49.1        | 1892.....                  | 24,988      | 431     | 17.3        | 2,213          | 134     | 60.6        |
| 1893.....                 | 67,683      | 1,152   | 17.0        | 6,705          | 313     | 46.7        | 1893.....                  | 25,083      | 444     | 17.7        | 2,260          | 144     | 63.7        |
| 1894.....                 | 69,917      | 1,126   | 16.1        | 6,851          | 329     | 48.0        | 1894.....                  | 25,229      | 452     | 18.0        | 2,309          | 172     | 74.5        |
| 1895.....                 | 72,278      | 1,169   | 16.2        | 7,000          | 320     | 47.0        | 1895.....                  | 25,375      | 461     | 18.2        | 2,358          | 163     | 60.1        |
| 1896.....                 | 74,718      | 1,226   | 16.3        | 7,152          | 311     | 43.5        | 1896.....                  | 25,523      | 471     | 18.5        | 2,409          | 140     | 61.9        |
| 1897.....                 | 77,241      | 1,119   | 14.5        | 7,307          | 353     | 48.3        | 1897.....                  | 25,671      | 480     | 18.7        | 2,460          | 110     | 44.7        |
| 1898.....                 | 79,855      | 1,120   | 14.0        | 7,460          | 294     | 39.4        | 1898.....                  | 25,820      | 490     | 19.0        | 2,513          | 141     | 56.1        |
| 1899.....                 | 82,546      | 1,211   | 14.7        | 7,629          | 277     | 36.3        | 1899.....                  | 25,970      | 500     | 19.3        | 2,567          | 125     | 48.7        |
| 1900.....                 | 85,393      | 1,210   | 14.2        | 7,795          | 304     | 39.0        | 1900.....                  | 26,121      | 511     | 19.6        | 2,622          | 108     | 41.2        |
| <b>Denver, Colo.:</b>     |             |         |             |                |         |             | <b>Hartford, Conn.:</b>    |             |         |             |                |         |             |
| 1890.....                 | 106,713     | 2,580   | 23.7        | 9,558          | .....   | .....       | 1890.....                  | 58,280      | 1,198   | 21.4        | 4,785          | 283     | 59.8        |
| 1891.....                 | 109,159     | 2,118   | 19.4        | 9,727          | .....   | .....       | 1891.....                  | 58,483      | 1,202   | 20.5        | 4,977          | 309     | 74.1        |
| 1892.....                 | 111,661     | 1,718   | 15.3        | 9,898          | 539     | 54.5        | 1892.....                  | 57,727      | 1,277   | 22.1        | 5,232          | 368     | 70.9        |
| 1893.....                 | 114,221     | 1,781   | 15.6        | 10,073         | 499     | 49.5        | 1893.....                  | 57,010      | 1,321   | 23.2        | 5,490          | 348     | 60.3        |
| 1894.....                 | 116,839     | 1,688   | 14.4        | 10,260         | 521     | 50.8        | 1894.....                  | 56,294      | 1,365   | 24.3        | 5,748          | 272     | 47.1        |
| 1895.....                 | 119,518     | 1,626   | 13.6        | 10,451         | 416     | 39.8        | 1895.....                  | 55,578      | 1,410   | 25.4        | 6,006          | 247     | 44.6        |
| 1896.....                 | 122,267     | 1,571   | 12.8        | 10,645         | 363     | 34.1        | 1896.....                  | 54,862      | 1,456   | 26.5        | 6,273          | 192     | 34.9        |
| 1897.....                 | 125,060     | 1,438   | 11.5        | 10,842         | 380     | 35.0        | 1897.....                  | 54,146      | 1,502   | 27.6        | 6,548          | 147     | 26.8        |
| 1898.....                 | 127,927     | 1,298   | 10.1        | 11,043         | 363     | 33.0        | 1898.....                  | 53,430      | 1,548   | 29.0        | 6,833          | 107     | 20.0        |
| 1899.....                 | 130,869     | 1,158   | 8.8         | 11,247         | 439     | 39.0        | 1899.....                  | 52,714      | 1,594   | 30.3        | 7,128          | 87      | 16.5        |
| 1900.....                 | 133,859     | 1,276   | 9.5         | 11,454         | 455     | 40.0        | 1900.....                  | 52,000      | 1,640   | 31.4        | 7,423          | 80      | 15.3        |
| <b>Elizabeth, N. J.:</b>  |             |         |             |                |         |             | <b>Haverhill, Mass.:</b>   |             |         |             |                |         |             |
| 1890.....                 | 37,764      | 727     | 19.3        | 4,312          | 283     | 65.8        | 1890.....                  | 27,412      | 518     | 18.9        | 2,819          | 199     | 70.2        |
| 1891.....                 | 39,692      | 756     | 19.0        | 4,482          | 323     | 72.1        | 1891.....                  | 27,606      | 526     | 19.0        | 2,919          | 200     | 68.3        |
| 1892.....                 | 40,280      | 843     | 21.0        | 4,653          | 376     | 80.8        | 1892.....                  | 27,800      | 535     | 19.2        | 3,019          | 211     | 75.7        |
| 1893.....                 | 41,868      | 829     | 19.8        | 4,824          | 385     | 79.4        | 1893.....                  | 28,000      | 544     | 19.4        | 3,119          | 222     | 79.1        |
| 1894.....                 | 42,961      | 801     | 18.6        | 5,003          | 359     | 71.8        | 1894.....                  | 28,200      | 553     | 19.6        | 3,219          | 233     | 82.6        |
| 1895.....                 | 44,370      | 799     | 18.0        | 5,181          | 287     | 55.4        | 1895.....                  | 28,400      | 562     | 19.8        | 3,319          | 244     | 85.1        |
| 1896.....                 | 45,824      | 813     | 17.7        | 5,359          | 315     | 58.9        | 1896.....                  | 28,600      | 571     | 20.0        | 3,419          | 255     | 87.6        |
| 1897.....                 | 47,825      | 794     | 16.6        | 5,537          | 361     | 65.2        | 1897.....                  | 28,800      | 580     | 20.1        | 3,519          | 266     | 90.1        |
| 1898.....                 | 48,874      | 786     | 16.1        | 5,715          | 390     | 67.8        | 1898.....                  | 29,000      | 589     | 20.3        | 3,619          | 277     | 92.6        |
| 1899.....                 | 50,477      | 840     | 16.6        | 5,893          | 419     | 71.1        | 1899.....                  | 29,200      | 598     | 20.5        | 3,719          | 288     | 95.1        |
| 1900.....                 | 52,180      | 922     | 17.7        | 6,071          | 448     | 74.4        | 1900.....                  | 29,400      | 607     | 20.7        | 3,819          | 299     | 97.6        |
| <b>Elmira, N. Y.:</b>     |             |         |             |                |         |             | <b>Hoboken, N. J.:</b>     |             |         |             |                |         |             |
| 1890.....                 | 30,893      | 511     | 16.5        | 2,679          | 168     | 59.0        | 1890.....                  | 43,648      | 1,116   | 25.6        | 5,497          | 493     | 89.7        |
| 1891.....                 | 31,341      | 537     | 17.1        | 2,851          | 140     | 49.2        | 1891.....                  | 44,100      | 1,125   | 25.5        | 5,601          | 494     | 91.2        |
| 1892.....                 | 31,795      | 539     | 17.0        | 3,023          | 151     | 50.6        | 1892.....                  | 44,552      | 1,134   | 25.4        | 5,705          | 505     | 93.7        |
| 1893.....                 | 32,250      | 557     | 17.3        | 3,195          | 162     | 50.7        | 1893.....                  | 45,006      | 1,143   | 25.4        | 5,809          | 516     | 96.2        |
| 1894.....                 | 32,705      | 469     | 14.3        | 3,367          | 118     | 35.3        | 1894.....                  | 45,460      | 1,152   | 25.3        | 5,913          | 527     | 98.7        |
| 1895.....                 | 33,159      | 466     | 14.0        | 3,539          | 106     | 30.0        | 1895.....                  | 45,914      | 1,161   | 25.3        | 6,017          | 538     | 101.2       |
| 1896.....                 | 33,613      | 498     | 14.8        | 3,711          | 95      | 25.3        | 1896.....                  | 46,368      | 1,170   | 25.2        | 6,121          | 549     | 103.7       |
| 1897.....                 | 34,067      | 490     | 14.4        | 3,883          | 110     | 28.3        | 1897.....                  | 46,822      | 1,179   | 25.2        | 6,225          | 560     | 106.2       |
| 1898.....                 | 34,521      | 492     | 14.2        | 4,055          | 96      | 23.7        | 1898.....                  | 47,276      | 1,188   | 25.1        | 6,329          | 571     | 108.7       |
| 1899.....                 | 35,075      | 534     | 15.2        | 4,227          | 109     | 25.8        | 1899.....                  | 47,730      | 1,197   | 25.1        | 6,433          | 582     | 111.2       |
| 1900.....                 | 35,629      | 537     | 15.1        | 4,399          | 94      | 21.4        | 1900.....                  | 48,184      | 1,206   | 25.0        | 6,537          | 593     | 113.7       |
| <b>Eric, Pa.:</b>         |             |         |             |                |         |             | <b>Holyoke, Mass.:</b>     |             |         |             |                |         |             |
| 1890.....                 | 40,634      | 711     | 17.5        | 4,600          | 267     | 58.0        | 1890.....                  | 35,937      | 762     | 21.4        | 4,295          | 356     | 82.0        |
| 1891.....                 | 41,707      | 733     | 17.6        | 4,771          | 252     | 52.8        | 1891.....                  | 36,391      | 771     | 21.2        | 4,399          | 367     | 84.6        |
| 1892.....                 | 42,808      | 874     | 20.4        | 4,942          | 265     | 53.6        | 1892.....                  | 36,845      | 780     | 21.2        | 4,503          | 378     | 87.1        |
| 1893.....                 | 43,939      | 773     | 17.6        | 5,113          | 281     | 54.4        | 1893.....                  | 37,300      | 789     | 21.2        | 4,607          | 389     | 89.6        |
| 1894.....                 | 45,099      | 808     | 17.9        | 5,284          | 296     | 56.0        | 1894.....                  | 37,754      | 798     | 21.1        | 4,711          | 400     | 92.1        |
| 1895.....                 | 46,290      | 763     | 16.5        | 5,455          | 272     | 49.7        | 1895.....                  | 38,208      | 807     | 21.1        | 4,815          | 411     | 94.6        |
| 1896.....                 | 47,512      | 648     | 13.6        | 5,626          | 218     | 38.3        | 1896.....                  | 38,662      | 816     | 21.1        | 4,919          | 422     | 97.1        |
| 1897.....                 | 48,767      | 640     | 13.1        | 5,797          | 180     | 31.2        | 1897.....                  | 39,116      | 825     | 21.1        | 5,023          | 433     | 99.6        |
| 1898.....                 | 50,056      | 654     | 13.0        | 5,968          | 195     | 32.7        | 1898.....                  | 39,570      | 834     | 21.1        | 5,127          | 444     | 102.1       |
| 1899.....                 | 51,370      | 730     | 14.2        | 6,139          | 212     | 34.5        | 1899.....                  | 40,024      | 843     | 21.1        | 5,231          | 455     | 104.6       |
| 1900.....                 | 52,733      | 764     | 14.5        | 6,310          | 227     | 36.1        | 1900.....                  | 40,478      | 852     | 21.0        | 5,335          | 466     | 107.1       |
| <b>Evansville, Ind.:</b>  |             |         |             |                |         |             | <b>Indianapolis, Ind.:</b> |             |         |             |                |         |             |
| 1890.....                 | 50,756      | 883     | 17.4        | 5,088          | 346     | 68.3        | 1890.....                  | 105,436     | 1,720   | 16.3        | 9,452          | 545     | 57.7        |
| 1891.....                 | 51,526      | 902     | 17.5        | 5,259          | 357     | 68.1        | 1891.....                  | 110,880     | 1,978   | 17.8        | 10,100         | 641     | 64.9        |
| 1892.....                 | 52,308      | 904     | 17.3        | 5,430          | 368     | 67.8        | 1892.....                  | 116,324     | 2,236   | 19.2        | 10,748         | 675     | 58.1        |
| 1893.....                 | 53,102      | 902     | 17.0        | 5,601          | 379     | 67.7        | 1893.....                  | 121,768     | 2,494   | 20.5        | 11,396         | 709     | 61.5        |
| 1894.....                 | 53,908      | 862     | 16.0        | 5,772          | 390     | 67.4        | 1894.....                  | 127,212     | 2,752   | 21.7        | 12,044         | 743     | 61.5        |
| 1895.....                 | 54,726      | 965     | 17.6        | 5,943          | 401     | 66.9        | 1895.....                  | 132,656     | 3,010   | 22.7        | 12,692         | 777     | 61.4        |
| 1896.....                 | 55,557      | 766     | 13.8        | 6,114          | 412     | 67.4        | 1896.....                  | 138,100     | 3,268   | 23.7        | 13,340         | 811     | 60.7        |
| 1897.....                 | 56,400      | 782     | 13.9        | 6,285          | 423     | 67.3        | 1897.....                  | 143,544     | 3,526   | 24.5        | 14,000         | 845     | 60.1        |
| 1898.....                 | 57,250      | 870     | 15.3        | 6,456          | 434     | 67.2        | 1898.....                  | 149,000     | 3,784   | 25.4        | 14,648         | 879     | 59.6        |
| 1899.....                 | 58,125      | 1,018   | 17.5        | 6,627          | 445     | 67.1        | 1899.....                  | 154,444     | 4,042   | 26.2        | 15,296         | 913     | 59.1        |
| 1900.....                 | 59,007      | 844     | 14.3        | 6,798          | 456     | 67.0        | 1900.....                  | 159,888     | 4,300   | 27.0        | 16,000         | 947     | 58.7        |
| <b>Fall River, Mass.:</b> |             |         |             |                |         |             | <b>Jersey City, N. J.:</b> |             |         |             |                |         |             |
| 1890.....                 | 74,398      | 1,705   | 22.9        | 8,049          | 802     | 99.6        | 1890.....                  | 163,003     | 4,258   | 26.1        | 18,510         | 1,753   | 95.0        |
| 1891.....                 | 76,806      | 1,911   | 24.9        | 8,410          | 915     | 107.5       | 1891.....                  | 168,447     | 4,516   | 26.8        | 19,068         | 1,777   | 88.2        |
| 1892.....                 | 79,684      | 1,986   | 24.9        | 8,771          | 928     | 106.6       | 1892.....                  | 173,891     | 4,774   | 27.4        | 19,626         | 1,801   | 91.2        |
| 1893.....                 | 82,468      | 2,048   | 24.8        | 9,132          | 941     | 103.1       | 1893.....                  | 179,335     | 5,032   | 28.1        | 20,184         | 1,825   | 92.8        |
| 1894.....                 | 85,347      | 2,048   | 24.0        | 9,493          | 954     | 101.6       | 1894.....                  | 184,779     | 5,290   | 28.6        | 20,742         | 1,849   | 94.4        |
| 1895.....                 | 88,327      | 1,945   | 22.0        | 9,854          | 967     | 97.7        | 1895.....                  | 190,223     | 5,548   | 29.2        | 21,300         | 1,873   | 87.9        |
| 1896.....                 | 91,411      | 2,201   | 24.1        | 10,215         | 980     | 96.9        | 1896.....                  | 195,667     | 5,806   | 29.7        | 21,858         | 1,897   | 87.9        |
| 1897.....                 | 94,608      | 2,207   | 23.3        | 10,576         | 993     | 94.9        | 1897.....                  | 201,111     | 6,064   | 30.1        | 22,416         | 1,921   | 94.6        |
| 1898.....                 | 97,906      | 1,917   | 19.6        | 10,937         | 1,006   | 91.9        | 1898.....                  | 206,555     | 6,322   | 30.6        | 22,974         | 1,945   | 89.4        |
| 1899.....                 | 101,225     | 2,157   | 21.3        | 11,298         | 1,019   | 90.2        | 1899.....                  | 212,000     | 6,580   | 31.0        | 23,532         | 1,969   | 84.9        |
| 1900.....                 | 104,863     | 2,268   | 21.6        | 11,659         | 1,032   | 88.6        | 1900.....                  | 217,444     | 6,838   | 31.5        | 24,090         | 1,993   | 91.1        |
| <b>Fitchburg, Mass.:</b>  |             |         |             |                |         |             | <b>Kansas City, Mo.:</b>   |             |         |             |                |         |             |
| 1890.....                 | 22,097      | 323     | 14.7        | 2,221          | 115     | 51.8        | 1890.....                  | 132,719     | 2,248   | 16.9        | 12,661         | 885     | 69.9        |
| 1891.....                 | 22,841      | 409     | 17.9        | 2,392          | 165     | 70.6        | 1891.....                  | 138,163     | 2,506   | 18.1        | 13,219         | 919     | 68.4        |
| 1892.....                 | 23,674      | 445     | 18.8        | 2,563          | 215     | 83.9        | 1892.....                  | 143,607     |         |             |                |         |             |



TABLE 4.—POPULATION, DEATHS, AND DEATH RATES PER 1,000 POPULATION AT ALL AGES AND UNDER 5 YEARS OF AGE, IN EACH CALENDAR YEAR FOR CERTAIN SPECIFIED CITIES: 1890 TO 1900—Continued.

| CITY.                     | ALL AGES.        |         |                | UNDER 5 YEARS.   |         |                | CITY.                      | ALL AGES.        |         |                | UNDER 5 YEARS.   |         |                |
|---------------------------|------------------|---------|----------------|------------------|---------|----------------|----------------------------|------------------|---------|----------------|------------------|---------|----------------|
|                           | Popula-<br>tion. | Deaths. | Death<br>rate. | Popula-<br>tion. | Deaths. | Death<br>rate. |                            | Popula-<br>tion. | Deaths. | Death<br>rate. | Popula-<br>tion. | Deaths. | Death<br>rate. |
| <b>Lawrence, Mass.:</b>   |                  |         |                |                  |         |                | <b>Milwaukee, Wis.:</b>    |                  |         |                |                  |         |                |
| 1890.....                 | 44,654           | 1,184   | 26.5           | 4,149            | 590     | 120.5          | 1890.....                  | 204,468          | 3,747   | 18.3           | 28,119           | 1,909   | 67.9           |
| 1891.....                 | 46,186           | 1,129   | 24.4           | 4,364            | 407     | 93.3           | 1891.....                  | 217,895          | 4,669   | 22.2           | 28,789           | 2,675   | 93.1           |
| 1892.....                 | 47,709           | 1,246   | 26.1           | 4,590            | 515     | 112.2          | 1892.....                  | 218,557          | 4,516   | 20.7           | 29,373           | 2,223   | 75.7           |
| 1893.....                 | 49,407           | 1,184   | 24.0           | 4,827            | 470     | 97.4           | 1893.....                  | 225,962          | 4,462   | 19.7           | 30,020           | 2,317   | 77.2           |
| 1894.....                 | 51,101           | 961     | 18.8           | 5,077            | 376     | 74.1           | 1894.....                  | 233,617          | 4,263   | 18.2           | 30,682           | 2,091   | 68.2           |
| 1895.....                 | 52,864           | 1,060   | 20.1           | 5,340            | 428     | 80.1           | 1895.....                  | 241,532          | 3,385   | 16.1           | 31,358           | 1,825   | 58.2           |
| 1896.....                 | 54,666           | 1,101   | 20.1           | 5,617            | 495     | 87.4           | 1896.....                  | 249,715          | 3,904   | 15.6           | 32,050           | 1,791   | 56.9           |
| 1897.....                 | 56,541           | 1,159   | 20.5           | 5,907            | 496     | 82.3           | 1897.....                  | 256,175          | 3,608   | 14.0           | 32,756           | 1,502   | 46.9           |
| 1898.....                 | 58,480           | 1,163   | 19.7           | 6,218            | 491     | 79.0           | 1898.....                  | 266,922          | 3,338   | 12.5           | 33,479           | 1,346   | 40.2           |
| 1899.....                 | 60,288           | 1,255   | 20.4           | 6,535            | 564     | 86.3           | 1899.....                  | 275,966          | 3,848   | 13.9           | 34,217           | 1,541   | 45.0           |
| 1900.....                 | 62,659           | 1,276   | 20.4           | 6,873            | 540     | 78.6           | 1900.....                  | 285,315          | 4,026   | 14.1           | 34,971           | 1,731   | 49.5           |
| <b>Los Angeles, Cal.:</b> |                  |         |                |                  |         |                | <b>Minneapolis, Minn.:</b> |                  |         |                |                  |         |                |
| 1890.....                 | 50,305           | 846     | 16.8           | 4,631            | 198     | 42.8           | 1890.....                  | 164,788          | 2,556   | 15.5           | 19,897           | 1,009   | 52.0           |
| 1891.....                 | 54,102           | 881     | 16.4           | 4,888            | 180     | 38.9           | 1891.....                  | 168,191          | 2,177   | 12.9           | 19,523           | 984     | 47.8           |
| 1892.....                 | 58,081           | 945     | 16.3           | 5,130            | 235     | 46.8           | 1892.....                  | 171,717          | 2,288   | 13.1           | 19,649           | 976     | 49.7           |
| 1893.....                 | 62,351           | 954     | 15.3           | 5,409            | 174     | 32.2           | 1893.....                  | 175,817          | 2,223   | 12.7           | 19,777           | 820     | 41.5           |
| 1894.....                 | 66,940           | 1,182   | 17.7           | 5,696            | 240     | 42.1           | 1894.....                  | 178,992          | 2,069   | 11.6           | 19,905           | 984     | 49.1           |
| 1895.....                 | 71,864           | 1,176   | 16.4           | 5,998            | 227     | 37.8           | 1895.....                  | 182,744          | 2,067   | 11.2           | 20,034           | 879     | 43.9           |
| 1896.....                 | 77,160           | 1,366   | 17.7           | 6,317            | 305     | 48.3           | 1896.....                  | 186,575          | 1,917   | 10.3           | 20,164           | 691     | 34.3           |
| 1897.....                 | 82,825           | 1,412   | 17.0           | 6,652            | 285     | 42.8           | 1897.....                  | 190,486          | 1,837   | 9.6            | 20,295           | 565     | 27.8           |
| 1898.....                 | 88,917           | 1,601   | 18.0           | 7,005            | 295     | 42.1           | 1898.....                  | 194,479          | 2,062   | 10.6           | 20,426           | 662     | 32.7           |
| 1899.....                 | 95,238           | 1,641   | 17.2           | 7,377            | 268     | 36.3           | 1899.....                  | 198,553          | 2,082   | 10.5           | 20,559           | 579     | 28.2           |
| 1900.....                 | 102,479          | 1,729   | 16.9           | 7,769            | 319     | 41.1           | 1900.....                  | 202,718          | 2,188   | 10.8           | 20,692           | 625     | 30.2           |
| <b>Louisville, Ky.:</b>   |                  |         |                |                  |         |                | <b>Mobile, Ala.:</b>       |                  |         |                |                  |         |                |
| 1890.....                 | 161,129          | 3,102   | 19.6           | 15,465           | 897     | 58.0           | 1890.....                  | 81,076           | 847     | 27.3           | 2,938            | 273     | 92.6           |
| 1891.....                 | 165,084          | 3,087   | 18.7           | 15,778           | 916     | 58.1           | 1891.....                  | 81,743           | 787     | 24.3           | 2,983            | 240     | 82.5           |
| 1892.....                 | 169,035          | 3,384   | 20.0           | 16,098           | 945     | 58.7           | 1892.....                  | 82,431           | 865     | 27.3           | 3,029            | 281     | 76.3           |
| 1893.....                 | 173,182          | 3,265   | 18.9           | 16,424           | 1,002   | 61.0           | 1893.....                  | 83,131           | 839     | 26.3           | 3,075            | 241     | 78.4           |
| 1894.....                 | 177,328          | 3,140   | 17.7           | 16,757           | 981     | 58.6           | 1894.....                  | 83,845           | 805     | 23.8           | 3,122            | 224     | 71.7           |
| 1895.....                 | 181,626          | 3,369   | 18.5           | 17,096           | 818     | 47.8           | 1895.....                  | 84,575           | 915     | 20.5           | 3,170            | 251     | 79.2           |
| 1896.....                 | 186,029          | 2,296   | 17.7           | 17,442           | 898     | 51.5           | 1896.....                  | 85,321           | 872     | 24.7           | 3,219            | 269     | 83.6           |
| 1897.....                 | 190,536          | 3,105   | 16.3           | 17,796           | 870     | 49.2           | 1897.....                  | 86,083           | 916     | 25.4           | 3,268            | 247     | 75.6           |
| 1898.....                 | 195,156          | 3,058   | 15.7           | 18,156           | 783     | 43.4           | 1898.....                  | 86,862           | 859     | 28.3           | 3,318            | 223     | 67.2           |
| 1899.....                 | 199,830          | 3,519   | 17.6           | 18,524           | 808     | 43.7           | 1899.....                  | 87,637           | 926     | 24.6           | 3,369            | 267     | 79.3           |
| 1900.....                 | 204,731          | 3,280   | 16.0           | 18,899           | 703     | 40.4           | 1900.....                  | 88,466           | 1,012   | 26.3           | 3,421            | 300     | 87.7           |
| <b>Lowell, Mass.:</b>     |                  |         |                |                  |         |                | <b>Nashville, Tenn.:</b>   |                  |         |                |                  |         |                |
| 1890.....                 | 77,096           | 1,960   | 25.2           | 7,138            | 809     | 113.3          | 1890.....                  | 76,168           | 1,281   | 16.8           | 7,375            | 407     | 55.2           |
| 1891.....                 | 79,271           | 1,975   | 24.9           | 7,329            | 831     | 113.4          | 1891.....                  | 76,025           | 1,303   | 28.5           | 7,374            | 623     | 81.5           |
| 1892.....                 | 80,873           | 2,228   | 27.6           | 7,525            | 923     | 122.5          | 1892.....                  | 77,085           | 1,632   | 20.3           | 7,373            | 499     | 67.7           |
| 1893.....                 | 82,519           | 2,108   | 25.5           | 7,727            | 934     | 120.9          | 1893.....                  | 77,548           | 1,629   | 21.0           | 7,371            | 627     | 85.1           |
| 1894.....                 | 84,192           | 1,790   | 21.3           | 7,935            | 765     | 96.4           | 1894.....                  | 78,018           | 1,521   | 19.6           | 7,370            | 507     | 68.8           |
| 1895.....                 | 85,899           | 1,809   | 21.3           | 8,147            | 707     | 87.8           | 1895.....                  | 78,481           | 1,511   | 23.1           | 7,369            | 512     | 69.5           |
| 1896.....                 | 87,641           | 1,922   | 21.9           | 8,366            | 850     | 96.6           | 1896.....                  | 78,962           | 1,804   | 22.8           | 7,368            | 634     | 85.8           |
| 1897.....                 | 89,418           | 1,830   | 20.8           | 8,590            | 793     | 92.2           | 1897.....                  | 79,426           | 1,633   | 20.6           | 7,367            | 469     | 63.4           |
| 1898.....                 | 91,442           | 1,809   | 19.8           | 8,820            | 710     | 80.5           | 1898.....                  | 79,908           | 1,601   | 20.0           | 7,365            | 469     | 63.7           |
| 1899.....                 | 93,682           | 1,851   | 19.8           | 9,056            | 775     | 85.6           | 1899.....                  | 80,383           | 1,837   | 28.5           | 7,364            | 592     | 80.4           |
| 1900.....                 | 94,969           | 1,850   | 19.5           | 9,299            | 691     | 74.3           | 1900.....                  | 80,866           | 1,850   | 22.9           | 7,363            | 577     | 73.4           |
| <b>Lynn, Mass.:</b>       |                  |         |                |                  |         |                | <b>New Bedford, Mass.:</b> |                  |         |                |                  |         |                |
| 1890.....                 | 55,727           | 948     | 17.0           | 4,817            | 266     | 55.8           | 1890.....                  | 40,738           | 839     | 20.6           | 3,830            | 322     | 84.1           |
| 1891.....                 | 56,800           | 969     | 17.0           | 4,951            | 334     | 67.5           | 1891.....                  | 42,511           | 984     | 23.1           | 4,059            | 402     | 90.0           |
| 1892.....                 | 58,077           | 1,086   | 18.7           | 5,088            | 307     | 60.8           | 1892.....                  | 44,806           | 991     | 22.3           | 4,302            | 417     | 96.9           |
| 1893.....                 | 59,290           | 1,094   | 19.8           | 5,229            | 354     | 67.7           | 1893.....                  | 46,303           | 1,116   | 24.1           | 4,559            | 502     | 110.1          |
| 1894.....                 | 60,827           | 903     | 14.9           | 5,374            | 272     | 50.6           | 1894.....                  | 48,824           | 1,052   | 22.0           | 4,832            | 483     | 100.0          |
| 1895.....                 | 61,700           | 1,094   | 17.7           | 5,524            | 313     | 56.7           | 1895.....                  | 50,433           | 1,070   | 21.2           | 5,121            | 445     | 86.9           |
| 1896.....                 | 63,680           | 1,129   | 17.9           | 5,677            | 372     | 65.5           | 1896.....                  | 52,084           | 1,226   | 23.8           | 5,427            | 581     | 107.1          |
| 1897.....                 | 64,398           | 997     | 15.5           | 5,835            | 277     | 47.5           | 1897.....                  | 54,931           | 1,311   | 23.9           | 5,751            | 604     | 105.0          |
| 1898.....                 | 65,740           | 943     | 14.3           | 5,997            | 304     | 50.7           | 1898.....                  | 57,461           | 1,120   | 19.5           | 6,095            | 609     | 83.5           |
| 1899.....                 | 67,112           | 1,034   | 15.4           | 6,163            | 272     | 44.1           | 1899.....                  | 59,891           | 1,179   | 19.7           | 6,460            | 479     | 74.1           |
| 1900.....                 | 68,613           | 1,090   | 15.9           | 6,334            | 306     | 48.8           | 1900.....                  | 62,442           | 1,323   | 21.2           | 6,846            | 579     | 84.6           |
| <b>Malden, Mass.:</b>     |                  |         |                |                  |         |                | <b>New Haven, Conn.:</b>   |                  |         |                |                  |         |                |
| 1890.....                 | 28,081           | 369     | 16.0           | 2,280            | 126     | 56.5           | 1890.....                  | 86,045           | 1,743   | 20.3           | 7,927            | 505     | 63.7           |
| 1891.....                 | 28,922           | 390     | 16.7           | 2,324            | 124     | 53.4           | 1891.....                  | 88,025           | 1,673   | 19.1           | 8,209            | 471     | 57.4           |
| 1892.....                 | 24,848           | 452     | 18.2           | 2,421            | 131     | 54.1           | 1892.....                  | 90,051           | 1,779   | 19.8           | 8,501            | 592     | 69.6           |
| 1893.....                 | 25,809           | 484     | 18.8           | 2,523            | 144     | 57.1           | 1893.....                  | 92,123           | 2,037   | 22.1           | 8,804            | 653     | 74.2           |
| 1894.....                 | 26,807           | 462     | 17.2           | 2,629            | 155     | 58.6           | 1894.....                  | 94,248           | 1,721   | 18.3           | 9,117            | 573     | 62.8           |
| 1895.....                 | 27,844           | 508     | 18.2           | 2,730            | 140     | 51.1           | 1895.....                  | 96,412           | 1,890   | 19.6           | 9,442            | 610     | 64.6           |
| 1896.....                 | 28,922           | 480     | 16.6           | 2,854            | 151     | 52.9           | 1896.....                  | 98,680           | 2,019   | 20.5           | 9,778            | 710     | 72.6           |
| 1897.....                 | 30,041           | 464     | 15.4           | 2,974            | 155     | 52.1           | 1897.....                  | 100,900          | 1,769   | 17.5           | 10,126           | 526     | 51.9           |
| 1898.....                 | 31,203           | 498     | 16.0           | 3,093            | 172     | 55.5           | 1898.....                  | 103,222          | 1,845   | 17.9           | 10,487           | 573     | 54.6           |
| 1899.....                 | 32,410           | 473     | 14.6           | 3,220            | 138     | 42.7           | 1899.....                  | 105,597          | 1,721   | 16.3           | 10,860           | 486     | 40.1           |
| 1900.....                 | 33,664           | 489     | 14.5           | 3,365            | 164     | 48.7           | 1900.....                  | 108,027          | 1,967   | 18.2           | 11,247           | 598     | 53.2           |
| <b>Manchester, N. H.:</b> |                  |         |                |                  |         |                | <b>New Orleans, La.:</b>   |                  |         |                |                  |         |                |
| 1890.....                 | 44,126           | 1,030   | 23.3           | 3,966            | 432     | 108.9          | 1890.....                  | 242,039          | 7,288   | 29.9           | 25,921           | 2,228   | 85.8           |
| 1891.....                 | 45,269           | 942     | 20.8           | 4,141            | 381     | 92.0           | 1891.....                  | 246,207          | 6,856   | 27.8           | 26,308           | 2,086   | 77.4           |
| 1892.....                 | 46,442           | 1,038   | 22.4           | 4,325            | 473     | 110.5          | 1892.....                  | 250,447          | 7,499   | 29.9           | 26,701           | 2,251   | 84.3           |
| 1893.....                 | 47,646           | 1,071   | 22.5           | 4,517            | 484     | 106.1          | 1893.....                  | 254,760          | 7,150   | 28.1           | 27,100           | 2,006   | 77.8           |
| 1894.....                 | 48,880           | 974     | 19.9           | 4,718            | 472     | 100.0          | 1894.....                  | 259,147          | 6,849   | 26.4           | 27,505           | 2,096   | 76.2           |
| 1895.....                 | 50,146           | 1,007   | 20.1           | 4,927            | 489     | 99.1           | 1895.....                  | 263,610          | 6,845   | 30.5           | 27,916           | 2,413   | 86.4           |
| 1896.....                 | 51,445           | 1,043   | 20.3           | 5,145            | 482     | 94.0           | 1896.....                  | 268,160          | 7,594   | 28.3           | 28,333           | 2,215   | 78.2           |
| 1897.....                 | 52,778           | 1,098   | 20.7           | 5,373            | 500     | 93.1           | 1897.....                  | 272,763          | 6,780   | 24.7           | 28,756           | 1,753   | 61.0           |
| 1898.....                 | 54,145           | 977     | 18.0           | 5,611            | 420     | 74.9           | 1898.....                  | 277,465          | 6,826   | 24.6           | 29,156           | 1,776   | 60.8           |
| 1899.....                 | 55,548           | 1,026   | 18.5           | 5,860            | 488     | 83.1           | 1899.....                  | 282,243          | 7,895   | 28.0           | 29,622           | 2,087   | 70.5           |
| 1900.....                 | 56,987           | 1,117   | 19.6           | 6,120            | 457     | 74.7           | 1900.....                  | 287,104          | 7,424   | 25.9           | 30,064           | 1,857   | 61.5           |
| <b>Memphis, Tenn.:</b>    |                  |         |                |                  |         |                | <b>New York, N. Y.:</b>    |                  |         |                |                  |         |                |
| 1890.....                 | 64,495           | 1,344   | 20.8           | 5,647            | 401     | 71.0           | 1890.....                  | 1,515,301        | 40,108  | 26.5           | 104,686          | 16,305  | 99.0           |
| 1891.....                 | 67,541           | 1,454   | 21.5           | 5,958            |         |                |                            |                  |         |                |                  |         |                |

TABLE 4.—POPULATION, DEATHS, AND DEATH RATES PER 1,000 POPULATION AT ALL AGES AND UNDER 5 YEARS OF AGE, IN EACH CALENDAR YEAR FOR CERTAIN SPECIFIED CITIES: 1890 TO 1900—Continued.

| CITY.              | ALL AGES.        |         |                | UNDER 5 YEARS.   |         |                | CITY.                | ALL AGES.        |         |                | UNDER 5 YEARS.   |         |                |
|--------------------|------------------|---------|----------------|------------------|---------|----------------|----------------------|------------------|---------|----------------|------------------|---------|----------------|
|                    | Popula-<br>tion. | Deaths. | Death<br>rate. | Popula-<br>tion. | Deaths. | Death<br>rate. |                      | Popula-<br>tion. | Deaths. | Death<br>rate. | Popula-<br>tion. | Deaths. | Death<br>rate. |
| Newark, N. J.:     |                  |         |                |                  |         |                | Providence, R. I.:   |                  |         |                |                  |         |                |
| 1890.....          | 181,830          | 4,948   | 27.2           | 20,121           | 2,093   | 104.0          | 1890.....            | 182,146          | 2,876   | 21.8           | 11,410           | 965     | 84.7           |
| 1891.....          | 187,415          | 4,420   | 23.6           | 20,804           | 1,701   | 81.8           | 1891.....            | 135,957          | 2,630   | 19.3           | 11,871           | 825     | 69.6           |
| 1892.....          | 193,173          | 5,641   | 29.2           | 21,509           | 2,495   | 116.0          | 1892.....            | 189,877          | 2,964   | 21.2           | 12,350           | 902     | 73.0           |
| 1893.....          | 199,106          | 4,900   | 24.6           | 22,230           | 1,863   | 83.8           | 1893.....            | 143,511          | 3,141   | 21.8           | 12,848           | 1,039   | 80.9           |
| 1894.....          | 205,221          | 4,760   | 23.2           | 22,998           | 1,882   | 81.9           | 1894.....            | 148,061          | 2,898   | 19.6           | 13,867           | 931     | 69.6           |
| 1895.....          | 211,525          | 4,648   | 22.0           | 23,773           | 1,771   | 74.5           | 1895.....            | 152,330          | 3,039   | 20.3           | 13,906           | 1,021   | 73.4           |
| 1896.....          | 218,083          | 4,628   | 21.2           | 24,579           | 1,863   | 75.8           | 1896.....            | 156,723          | 2,957   | 18.9           | 14,468           | 1,011   | 69.9           |
| 1897.....          | 224,719          | 4,496   | 20.0           | 25,418           | 1,744   | 68.6           | 1897.....            | 161,242          | 2,811   | 17.4           | 15,052           | 898     | 59.7           |
| 1898.....          | 231,028          | 3,932   | 17.0           | 26,275           | 1,371   | 52.2           | 1898.....            | 165,892          | 2,929   | 17.7           | 15,659           | 924     | 59.0           |
| 1899.....          | 238,787          | 4,714   | 19.7           | 27,167           | 1,622   | 59.7           | 1899.....            | 170,675          | 3,162   | 18.5           | 16,291           | 1,010   | 62.0           |
| 1900.....          | 243,070          | 4,824   | 19.6           | 28,088           | 1,748   | 62.2           | 1900.....            | 175,697          | 2,678   | 15.3           | 16,949           | 1,230   | 72.6           |
| Newton, Mass.:     |                  |         |                |                  |         |                | Reading, Pa.:        |                  |         |                |                  |         |                |
| 1890.....          | 24,879           | 333     | 13.7           | 1,963            | 91      | 45.7           | 1890.....            | 58,661           | 1,040   | 17.7           | 6,461            | 375     | 58.0           |
| 1891.....          | 25,121           | 349     | 13.9           | 2,087            | 90      | 46.0           | 1891.....            | 60,480           | 1,103   | 18.3           | 6,611            | 414     | 62.6           |
| 1892.....          | 25,945           | 393     | 15.1           | 2,155            | 108     | 46.4           | 1892.....            | 62,253           | 1,060   | 16.5           | 6,705            | 399     | 59.1           |
| 1893.....          | 26,796           | 447     | 16.7           | 2,287            | 127     | 55.5           | 1893.....            | 64,131           | 1,054   | 16.4           | 6,923            | 360     | 50.6           |
| 1894.....          | 27,674           | 412     | 14.9           | 2,355            | 144     | 60.1           | 1894.....            | 66,036           | 1,315   | 19.9           | 7,084            | 543     | 76.7           |
| 1895.....          | 28,582           | 451     | 15.8           | 2,507            | 136     | 54.2           | 1895.....            | 68,058           | 1,145   | 16.8           | 7,249            | 449     | 61.9           |
| 1896.....          | 29,520           | 496     | 16.8           | 2,625            | 147     | 56.0           | 1896.....            | 70,111           | 1,122   | 16.0           | 7,418            | 426     | 57.4           |
| 1897.....          | 30,488           | 455     | 14.9           | 2,748            | 138     | 50.2           | 1897.....            | 72,226           | 1,082   | 15.0           | 7,590            | 531     | 70.0           |
| 1898.....          | 31,488           | 459     | 14.6           | 2,877            | 154     | 53.5           | 1898.....            | 74,405           | 1,109   | 14.9           | 7,767            | 447     | 57.6           |
| 1899.....          | 32,620           | 443     | 13.6           | 3,013            | 139     | 46.1           | 1899.....            | 76,649           | 1,113   | 14.5           | 7,948            | 520     | 65.4           |
| 1900.....          | 33,857           | 504     | 15.0           | 3,154            | 159     | 50.4           | 1900.....            | 78,961           | 1,429   | 18.1           | 8,133            | 688     | 84.6           |
| Oakland, Cal.:     |                  |         |                |                  |         |                | Rochester, N. Y.:    |                  |         |                |                  |         |                |
| 1890.....          | 48,682           | 762     | 15.7           | 4,352            | 241     | 55.4           | 1890.....            | 138,806          | 2,393   | 17.9           | 14,123           | 704     | 49.8           |
| 1891.....          | 50,259           | 832     | 16.6           | 4,442            | 213     | 48.0           | 1891.....            | 136,523          | 2,503   | 18.4           | 14,247           | 774     | 54.3           |
| 1892.....          | 51,887           | 777     | 15.0           | 4,534            | 213     | 47.0           | 1892.....            | 139,201          | 2,772   | 19.9           | 14,373           | 965     | 67.1           |
| 1893.....          | 53,668           | 759     | 14.2           | 4,623            | 195     | 46.5           | 1893.....            | 141,932          | 2,606   | 18.4           | 14,499           | 762     | 52.6           |
| 1894.....          | 55,303           | 721     | 13.0           | 4,724            | 163     | 34.5           | 1894.....            | 144,716          | 2,205   | 15.2           | 14,627           | 630     | 43.1           |
| 1895.....          | 57,094           | 722     | 12.6           | 4,822            | 261     | 52.1           | 1895.....            | 147,565          | 2,856   | 16.3           | 14,755           | 578     | 39.2           |
| 1896.....          | 58,944           | 738     | 12.4           | 4,922            | 153     | 31.1           | 1896.....            | 150,460          | 2,205   | 15.3           | 14,885           | 612     | 41.1           |
| 1897.....          | 60,853           | 840     | 14.0           | 5,024            | 154     | 30.7           | 1897.....            | 153,401          | 2,080   | 13.6           | 15,016           | 417     | 27.8           |
| 1898.....          | 62,824           | 803     | 14.4           | 5,125            | 162     | 31.6           | 1898.....            | 156,411          | 2,192   | 14.0           | 15,148           | 464     | 30.6           |
| 1899.....          | 64,859           | 806     | 13.8           | 5,285            | 153     | 30.2           | 1899.....            | 159,479          | 2,290   | 14.4           | 15,282           | 456     | 29.8           |
| 1900.....          | 66,960           | 1,028   | 15.3           | 5,348            | 153     | 28.5           | 1900.....            | 162,608          | 2,271   | 14.0           | 15,416           | 504     | 32.7           |
| Omaha, Nebr.:      |                  |         |                |                  |         |                | Sacramento, Cal.:    |                  |         |                |                  |         |                |
| 1890.....          | 140,452          | 1,226   | 8.7            | 16,265           | 551     | 33.9           | 1890.....            | 26,886           | 465     | 17.2           | 1,890            | 101     | 53.4           |
| 1891.....          | 136,104          | 1,529   | 9.8            | 15,384           | 528     | 38.9           | 1891.....            | 26,662           | 514     | 19.3           | 1,913            | 87      | 45.5           |
| 1892.....          | 131,891          | 1,217   | 9.2            | 14,553           | 629     | 35.9           | 1892.....            | 26,941           | 498     | 16.3           | 1,936            | 102     | 52.7           |
| 1893.....          | 127,808          | 1,316   | 10.3           | 13,766           | 635     | 38.9           | 1893.....            | 27,223           | 438     | 16.1           | 1,959            | 91      | 46.5           |
| 1894.....          | 123,851          | 1,271   | 10.3           | 13,022           | 622     | 40.1           | 1894.....            | 27,508           | 438     | 17.7           | 1,983            | 91      | 45.9           |
| 1895.....          | 120,017          | 1,242   | 10.3           | 12,319           | 459     | 37.3           | 1895.....            | 27,796           | 437     | 17.5           | 2,006            | 115     | 57.3           |
| 1896.....          | 115,301          | 1,074   | 9.2            | 11,653           | 408     | 35.0           | 1896.....            | 28,087           | 438     | 16.7           | 2,031            | 111     | 54.7           |
| 1897.....          | 112,701          | 1,037   | 9.2            | 11,049           | 338     | 30.6           | 1897.....            | 28,381           | 444     | 15.6           | 2,055            | 88      | 42.8           |
| 1898.....          | 109,212          | 1,127   | 10.3           | 10,428           | 297     | 28.5           | 1898.....            | 28,678           | 440     | 17.1           | 2,080            | 84      | 40.4           |
| 1899.....          | 105,831          | 1,428   | 13.5           | 9,864            | 393     | 33.8           | 1899.....            | 28,979           | 446     | 15.4           | 2,105            | 77      | 36.6           |
| 1900.....          | 102,555          | 1,275   | 12.4           | 9,331            | 357     | 33.3           | 1900.....            | 29,282           | 404     | 13.8           | 2,130            | 71      | 33.3           |
| Pasadena, N. J.:   |                  |         |                |                  |         |                | St. Louis, Mo.:      |                  |         |                |                  |         |                |
| 1890.....          | 13,028           | 219     | 16.8           | 1,681            | 109     | 65.6           | 1890.....            | 451,770          | 8,409   | 18.6           | 50,395           | 3,115   | 61.8           |
| 1891.....          | 14,053           | 332     | 23.6           | 1,802            | 170     | 94.3           | 1891.....            | 462,818          | 9,550   | 20.6           | 51,022           | 3,493   | 68.5           |
| 1892.....          | 15,158           | 332     | 21.9           | 1,955            | 168     | 85.9           | 1892.....            | 474,137          | 10,225  | 21.6           | 51,656           | 3,607   | 69.8           |
| 1893.....          | 16,350           | 343     | 21.0           | 2,122            | 165     | 77.5           | 1893.....            | 485,732          | 10,303  | 21.2           | 52,298           | 3,548   | 67.8           |
| 1894.....          | 17,636           | 337     | 19.1           | 2,302            | 198     | 86.0           | 1894.....            | 497,610          | 8,710   | 17.5           | 52,948           | 3,192   | 60.3           |
| 1895.....          | 19,023           | 356     | 20.3           | 2,498            | 219     | 87.7           | 1895.....            | 509,780          | 9,425   | 18.5           | 53,607           | 2,375   | 44.3           |
| 1896.....          | 20,519           | 420     | 20.5           | 2,710            | 235     | 86.7           | 1896.....            | 522,247          | 9,807   | 19.0           | 54,273           | 3,326   | 61.3           |
| 1897.....          | 22,133           | 482     | 21.8           | 2,940            | 272     | 92.5           | 1897.....            | 535,018          | 9,551   | 17.9           | 54,948           | 2,901   | 52.8           |
| 1898.....          | 23,874           | 413     | 17.3           | 3,190            | 222     | 69.6           | 1898.....            | 548,102          | 8,908   | 16.3           | 55,631           | 2,608   | 46.9           |
| 1899.....          | 25,752           | 515     | 20.0           | 3,462            | 393     | 78.8           | 1899.....            | 561,506          | 10,023  | 17.9           | 56,323           | 3,005   | 53.4           |
| 1900.....          | 27,767           | 583     | 21.0           | 3,756            | 325     | 86.5           | 1900.....            | 575,238          | 9,347   | 17.1           | 57,023           | 2,648   | 46.4           |
| Paterson, N. J.:   |                  |         |                |                  |         |                | St. Paul, Minn.:     |                  |         |                |                  |         |                |
| 1890.....          | 78,347           | 1,714   | 21.9           | 8,897            | 751     | 84.4           | 1890.....            | 133,156          | 1,693   | 12.7           | 17,109           | 876     | 51.2           |
| 1891.....          | 80,628           | 1,867   | 23.1           | 9,155            | 785     | 85.7           | 1891.....            | 135,882          | 1,769   | 13.0           | 17,093           | 818     | 47.9           |
| 1892.....          | 83,059           | 1,903   | 23.0           | 9,420            | 800     | 84.9           | 1892.....            | 138,063          | 1,752   | 12.6           | 17,076           | 827     | 48.4           |
| 1893.....          | 85,652           | 1,836   | 21.5           | 9,693            | 729     | 75.2           | 1893.....            | 141,501          | 1,585   | 11.2           | 17,060           | 683     | 40.0           |
| 1894.....          | 88,140           | 1,830   | 20.8           | 9,974            | 820     | 83.1           | 1894.....            | 144,398          | 1,570   | 10.9           | 17,043           | 743     | 43.6           |
| 1895.....          | 90,774           | 1,777   | 19.6           | 10,264           | 717     | 69.9           | 1895.....            | 147,364          | 1,623   | 11.1           | 17,027           | 648     | 38.1           |
| 1896.....          | 93,486           | 1,944   | 20.8           | 10,561           | 837     | 79.3           | 1896.....            | 150,373          | 1,484   | 9.5            | 17,010           | 588     | 34.6           |
| 1897.....          | 96,280           | 1,963   | 20.4           | 10,867           | 830     | 76.4           | 1897.....            | 153,445          | 1,387   | 9.0            | 16,994           | 450     | 26.5           |
| 1898.....          | 99,157           | 1,728   | 17.4           | 11,182           | 652     | 58.3           | 1898.....            | 156,589          | 1,787   | 11.1           | 16,978           | 632     | 37.2           |
| 1899.....          | 102,119          | 2,221   | 21.7           | 11,506           | 822     | 71.4           | 1899.....            | 159,794          | 1,570   | 9.8            | 16,961           | 609     | 35.0           |
| 1900.....          | 105,171          | 1,967   | 18.7           | 11,840           | 724     | 61.1           | 1900.....            | 163,065          | 1,590   | 9.8            | 16,945           | 492     | 29.0           |
| Pawtucket, R. I.:  |                  |         |                |                  |         |                | Salem, Mass.:        |                  |         |                |                  |         |                |
| 1890.....          | 27,633           | 606     | 21.9           | 2,869            | 217     | 81.3           | 1890.....            | 80,501           | 714     | 28.2           | 2,711            | 253     | 93.3           |
| 1891.....          | 28,619           | 587     | 20.5           | 2,795            | 174     | 62.3           | 1891.....            | 81,281           | 606     | 19.4           | 2,802            | 175     | 62.5           |
| 1892.....          | 29,639           | 642     | 21.7           | 2,927            | 203     | 68.3           | 1892.....            | 81,769           | 717     | 22.6           | 2,896            | 197     | 68.0           |
| 1893.....          | 30,696           | 599     | 19.5           | 3,060            | 192     | 62.6           | 1893.....            | 82,265           | 689     | 21.4           | 2,994            | 235     | 78.5           |
| 1894.....          | 31,791           | 590     | 18.6           | 3,211            | 208     | 64.8           | 1894.....            | 82,768           | 617     | 18.8           | 3,095            | 236     | 76.3           |
| 1895.....          | 32,925           | 655     | 19.9           | 3,362            | 224     | 66.6           | 1895.....            | 83,279           | 696     | 20.9           | 3,199            | 209     | 65.3           |
| 1896.....          | 34,100           | 616     | 18.1           | 3,521            | 229     | 65.0           | 1896.....            | 83,788           | 738     | 22.7           | 3,306            | 264     | 78.9           |
| 1897.....          | 35,316           | 595     | 16.8           | 3,688            | 181     | 49.1           | 1897.....            | 84,295           | 608     | 17.7           | 3,417            | 197     | 57.7           |
| 1898.....          | 36,575           | 543     | 14.8           | 3,862            | 167     | 43.2           | 1898.....            | 84,800           | 638     | 16.7           | 3,532            | 159     | 45.0           |
| 1899.....          | 37,850           | 633     | 14.1           | 4,045            | 217     | 53.6           | 1899.....            | 85,304           | 713     | 20.1           | 3,651            | 279     | 78.4           |
| 1900.....          | 39,231           | 792     | 20.2           | 4,236            | 287     | 67.8           | 1900.....            | 85,816           | 718     | 19.0           | 3,774            | 271     | 71.8           |
| Philadelphia, Pa.: |                  |         |                |                  |         |                | San Francisco, Cal.: |                  |         |                |                  |         |                |
| 1890.....          | 1,046,964        | 21,732  | 20.8           | 103,802          | 7,912   | 76.2           | 1890.....            | 298,997          | 6,880   | 23.0           | 22,976           | 1,866   | 85.6           |
| 1891.....          | 1,069,855        | 23,367  | 21.9           | 105,257          | 8,479   | 79.3           | 1891.....            | 303,111          | 6,873   | 22.7           | 23,268           | 1,912   | 82.2</         |

TABLE 4.—POPULATION, DEATHS, AND DEATH RATES PER 1,000 POPULATION AT ALL AGES AND UNDER 5 YEARS OF AGE, IN EACH CALENDAR YEAR FOR CERTAIN SPECIFIED CITIES: 1890 TO 1900—Continued.

| CITY.               | ALL AGES.   |         |             | UNDER 5 YEARS. |         |             | CITY.               | ALL AGES.   |         |             | UNDER 5 YEARS. |         |             |
|---------------------|-------------|---------|-------------|----------------|---------|-------------|---------------------|-------------|---------|-------------|----------------|---------|-------------|
|                     | Population. | Deaths. | Death rate. | Population.    | Deaths. | Death rate. |                     | Population. | Deaths. | Death rate. | Population.    | Deaths. | Death rate. |
| Schenectady, N. Y.: |             |         |             |                |         |             | Trenton, N. J.—Con. |             |         |             |                |         |             |
| 1890.....           | 19,902      | 522     | 26.2        | 1,921          | 170     | 88.5        | 1890.....           | 66,501      | 1,182   | 17.8        | 7,126          | 523     | 73.4        |
| 1891.....           | 20,549      | 577     | 27.7        | 2,024          | 187     | 92.4        | 1891.....           | 68,141      | 1,060   | 16.6        | 7,275          | 596     | 54.4        |
| 1892.....           | 21,841      | 572     | 26.2        | 2,133          | 231     | 94.2        | 1892.....           | 69,821      | 1,013   | 14.5        | 7,427          | 843     | 46.2        |
| 1893.....           | 23,881      | 471     | 20.6        | 2,248          | 150     | 73.8        | 1893.....           | 71,543      | 1,179   | 16.5        | 7,582          | 883     | 50.5        |
| 1894.....           | 23,970      | 432     | 18.0        | 2,869          | 156     | 65.9        | 1894.....           | 73,807      | 1,204   | 16.4        | 7,740          | 984     | 48.6        |
| 1895.....           | 25,110      | 432     | 17.2        | 2,497          | 152     | 60.9        | Troy, N. Y.:        |             |         |             |                |         |             |
| 1896.....           | 25,905      | 435     | 16.5        | 2,631          | 170     | 64.6        | 1890.....           | 60,956      | 1,436   | 23.6        | 5,355          | 409     | 76.4        |
| 1897.....           | 27,557      | 356     | 12.9        | 2,773          | 102     | 36.8        | 1891.....           | 60,925      | 1,609   | 26.4        | 5,322          | 467     | 87.7        |
| 1898.....           | 28,869      | 358     | 12.2        | 2,922          | 95      | 32.5        | 1892.....           | 66,895      | 1,601   | 25.3        | 5,289          | 488     | 91.3        |
| 1899.....           | 30,243      | 450     | 14.9        | 3,079          | 106     | 34.4        | 1893.....           | 60,864      | 1,383   | 22.7        | 5,256          | 355     | 67.5        |
| 1900.....           | 31,682      | 553     | 17.6        | 3,245          | 205     | 63.2        | 1894.....           | 66,894      | 1,296   | 21.3        | 5,223          | 848     | 63.6        |
| Scranton, Pa.:      |             |         |             |                |         |             | 1895.....           | 66,803      | 1,807   | 21.5        | 5,190          | 845     | 66.5        |
| 1890.....           | 75,216      | 1,026   | 21.6        | 9,661          | 755     | 79.2        | 1896.....           | 66,773      | 1,407   | 23.2        | 5,158          | 837     | 65.8        |
| 1891.....           | 77,543      | 1,880   | 17.2        | 9,917          | 552     | 55.7        | 1897.....           | 66,742      | 1,264   | 20.8        | 5,126          | 857     | 50.1        |
| 1892.....           | 79,844      | 1,440   | 18.0        | 10,180         | 623     | 61.2        | 1898.....           | 66,712      | 1,285   | 21.2        | 5,094          | 250     | 62.8        |
| 1893.....           | 82,419      | 1,469   | 17.8        | 10,460         | 559     | 58.5        | 1899.....           | 66,691      | 1,279   | 21.1        | 5,063          | 815     | 62.2        |
| 1894.....           | 84,970      | 1,478   | 17.4        | 10,727         | 634     | 56.8        | 1900.....           | 66,651      | 1,528   | 25.2        | 5,081          | 874     | 74.8        |
| 1895.....           | 87,601      | 1,578   | 18.0        | 11,012         | 672     | 61.0        | Utica, N. Y.:       |             |         |             |                |         |             |
| 1896.....           | 93,813      | 1,570   | 17.4        | 11,303         | 347     | 30.7        | 1890.....           | 44,007      | 942     | 21.4        | 4,013          | 284     | 70.8        |
| 1897.....           | 95,108      | 1,787   | 18.7        | 11,608         | 737     | 63.5        | 1891.....           | 45,111      | 993     | 22.0        | 4,120          | 262     | 63.6        |
| 1898.....           | 98,991      | 1,596   | 16.6        | 11,911         | 598     | 49.8        | 1892.....           | 46,243      | 939     | 20.3        | 4,231          | 225     | 53.2        |
| 1899.....           | 98,962      | 1,722   | 17.4        | 12,227         | 637     | 52.1        | 1893.....           | 47,408      | 924     | 19.5        | 4,344          | 244     | 56.2        |
| 1900.....           | 102,026     | 1,938   | 18.9        | 12,551         | 817     | 65.1        | 1894.....           | 48,593      | 897     | 18.5        | 4,460          | 260     | 58.3        |
| Somerville, Mass.:  |             |         |             |                |         |             | 1895.....           | 49,812      | 831     | 16.7        | 4,580          | 208     | 45.4        |
| 1890.....           | 40,152      | 668     | 16.6        | 3,866          | 214     | 55.4        | 1896.....           | 51,062      | 921     | 18.0        | 4,702          | 236     | 56.2        |
| 1891.....           | 41,311      | 782     | 18.7        | 4,076          | 234     | 72.1        | 1897.....           | 52,343      | 916     | 17.5        | 4,823          | 256     | 53.0        |
| 1892.....           | 43,746      | 713     | 16.4        | 4,296          | 204     | 47.5        | 1898.....           | 53,667      | 985     | 18.4        | 4,957          | 262     | 52.9        |
| 1893.....           | 45,663      | 800     | 17.5        | 4,530          | 235     | 51.9        | 1899.....           | 55,008      | 938     | 17.1        | 5,090          | 184     | 33.1        |
| 1894.....           | 47,583      | 878     | 18.3        | 4,775          | 316     | 66.2        | 1900.....           | 56,383      | 1,135   | 20.1        | 5,225          | 323     | 61.8        |
| 1895.....           | 49,750      | 839     | 16.8        | 5,034          | 250     | 49.7        | Washington, D. C.:  |             |         |             |                |         |             |
| 1896.....           | 51,929      | 924     | 17.8        | 5,307          | 331     | 62.4        | 1890.....           | 230,392     | 5,564   | 24.2        | 20,309         | 2,067   | 101.8       |
| 1897.....           | 54,204      | 859     | 15.8        | 5,595          | 316     | 56.5        | 1891.....           | 234,819     | 5,720   | 24.4        | 20,571         | 2,070   | 103.6       |
| 1898.....           | 55,578      | 880     | 16.6        | 5,899          | 269     | 48.9        | 1892.....           | 239,332     | 6,098   | 25.5        | 20,848         | 2,183   | 104.7       |
| 1899.....           | 59,056      | 801     | 13.6        | 6,219          | 242     | 38.9        | 1893.....           | 243,983     | 6,462   | 26.4        | 21,113         | 2,361   | 111.8       |
| 1900.....           | 61,543      | 965     | 15.7        | 6,556          | 317     | 48.4        | 1894.....           | 248,622     | 6,039   | 24.3        | 21,397         | 2,222   | 103.8       |
| Springfield, Mass.: |             |         |             |                |         |             | 1895.....           | 253,401     | 5,565   | 22.0        | 21,680         | 1,776   | 81.9        |
| 1890.....           | 44,179      | 801     | 19.5        | 3,901          | 294     | 75.4        | 1896.....           | 258,272     | 5,904   | 22.9        | 21,966         | 2,094   | 95.3        |
| 1891.....           | 45,706      | 886     | 19.4        | 4,084          | 274     | 67.1        | 1897.....           | 263,236     | 5,787   | 21.8        | 22,256         | 1,853   | 83.3        |
| 1892.....           | 47,286      | 995     | 21.0        | 4,276          | 317     | 74.1        | 1898.....           | 268,296     | 5,415   | 20.2        | 22,550         | 1,785   | 79.2        |
| 1893.....           | 48,921      | 960     | 19.6        | 4,476          | 290     | 64.8        | 1899.....           | 273,454     | 6,026   | 22.0        | 22,848         | 1,811   | 79.8        |
| 1894.....           | 50,612      | 792     | 15.6        | 4,686          | 255     | 54.4        | 1900.....           | 278,718     | 6,969   | 21.4        | 23,150         | 1,846   | 79.7        |
| 1895.....           | 52,361      | 928     | 17.7        | 4,905          | 329     | 67.1        | Wilmington, Del.:   |             |         |             |                |         |             |
| 1896.....           | 54,171      | 954     | 17.6        | 5,186          | 326     | 63.5        | 1890.....           | 61,431      | 1,236   | 20.1        | 6,017          | 488     | 80.5        |
| 1897.....           | 55,044      | 976     | 17.4        | 5,377          | 289     | 58.7        | 1891.....           | 62,794      | 1,237   | 19.7        | 6,168          | 496     | 80.8        |
| 1898.....           | 57,981      | 991     | 17.1        | 5,629          | 318     | 56.5        | 1892.....           | 64,188      | 1,267   | 19.7        | 6,312          | 607     | 80.8        |
| 1899.....           | 59,985      | 967     | 16.1        | 5,894          | 277     | 47.0        | 1893.....           | 65,612      | 1,199   | 18.3        | 6,465          | 488     | 75.5        |
| 1900.....           | 62,059      | 1,175   | 18.9        | 6,170          | 360     | 59.8        | 1894.....           | 67,038      | 1,161   | 17.8        | 6,621          | 472     | 71.8        |
| Syracuse, N. Y.:    |             |         |             |                |         |             | 1895.....           | 68,558      | 1,198   | 17.5        | 6,782          | 488     | 71.2        |
| 1890.....           | 88,143      | 1,620   | 18.4        | 8,491          | 557     | 64.9        | 1896.....           | 70,079      | 1,204   | 17.2        | 6,946          | 503     | 72.4        |
| 1891.....           | 93,938      | 1,547   | 17.2        | 8,609          | 456     | 53.0        | 1897.....           | 71,684      | 1,322   | 18.5        | 7,114          | 522     | 73.4        |
| 1892.....           | 91,862      | 1,657   | 18.0        | 8,729          | 472     | 54.1        | 1898.....           | 73,224      | 1,379   | 18.8        | 7,287          | 522     | 72.2        |
| 1893.....           | 93,780      | 1,721   | 18.4        | 8,851          | 527     | 59.5        | 1899.....           | 74,849      | 1,294   | 17.3        | 7,463          | 418     | 56.0        |
| 1894.....           | 95,788      | 1,449   | 15.1        | 8,974          | 495     | 55.2        | 1900.....           | 76,558      | 1,474   | 19.3        | 7,644          | 427     | 55.9        |
| 1895.....           | 97,736      | 1,539   | 15.7        | 9,099          | 431     | 52.9        | Woonsocket, R. I.:  |             |         |             |                |         |             |
| 1896.....           | 99,777      | 1,576   | 15.8        | 9,225          | 446     | 48.8        | 1890.....           | 20,850      | 428     | 20.5        | 2,202          | 194     | 88.1        |
| 1897.....           | 101,860     | 1,687   | 16.6        | 9,364          | 480     | 51.3        | 1891.....           | 21,471      | 441     | 20.5        | 2,301          | 224     | 97.8        |
| 1898.....           | 103,987     | 1,639   | 15.7        | 9,484          | 386     | 40.1        | 1892.....           | 22,182      | 445     | 20.1        | 2,403          | 203     | 84.5        |
| 1899.....           | 105,158     | 1,475   | 13.9        | 9,616          | 300     | 32.1        | 1893.....           | 22,813      | 438     | 19.2        | 2,511          | 198     | 78.9        |
| 1900.....           | 108,374     | 1,642   | 15.2        | 9,750          | 309     | 31.7        | 1894.....           | 23,515      | 413     | 17.6        | 2,623          | 188     | 69.8        |
| Taunton, Mass.:     |             |         |             |                |         |             | 1895.....           | 24,268      | 447     | 18.4        | 2,741          | 217     | 79.2        |
| 1890.....           | 25,448      | 499     | 19.4        | 2,426          | 177     | 73.0        | 1896.....           | 24,984      | 529     | 21.2        | 2,868          | 283     | 98.8        |
| 1891.....           | 25,958      | 445     | 17.1        | 2,492          | 124     | 49.8        | 1897.....           | 25,753      | 465     | 18.1        | 2,991          | 226     | 75.6        |
| 1892.....           | 26,479      | 395     | 22.6        | 2,560          | 160     | 62.5        | 1898.....           | 26,545      | 468     | 17.3        | 3,125          | 210     | 67.2        |
| 1893.....           | 27,010      | 575     | 21.3        | 2,630          | 174     | 66.2        | 1899.....           | 27,362      | 538     | 19.5        | 3,265          | 255     | 78.1        |
| 1894.....           | 27,551      | 374     | 20.8        | 2,701          | 172     | 63.7        | 1900.....           | 28,204      | 566     | 19.7        | 3,411          | 265     | 88.6        |
| 1895.....           | 28,103      | 497     | 17.7        | 2,775          | 145     | 52.3        | Worcester, Mass.:   |             |         |             |                |         |             |
| 1896.....           | 28,667      | 587     | 20.5        | 2,850          | 170     | 59.6        | 1890.....           | 84,655      | 1,495   | 17.7        | 8,409          | 528     | 62.2        |
| 1897.....           | 29,242      | 607     | 20.8        | 2,928          | 160     | 54.6        | 1891.....           | 87,747      | 1,601   | 18.2        | 8,748          | 677     | 66.0        |
| 1898.....           | 29,823      | 576     | 19.3        | 3,008          | 143     | 47.5        | 1892.....           | 90,688      | 1,817   | 20.1        | 9,102          | 660     | 62.2        |
| 1899.....           | 30,426      | 671     | 22.1        | 3,090          | 177     | 57.3        | 1893.....           | 93,624      | 1,891   | 20.2        | 9,470          | 687     | 72.5        |
| 1900.....           | 31,036      | 667     | 21.5        | 3,174          | 205     | 64.6        | 1894.....           | 96,820      | 1,802   | 18.6        | 9,852          | 670     | 57.9        |
| Toledo, Ohio:       |             |         |             |                |         |             | 1895.....           | 100,125     | 1,878   | 18.8        | 10,250         | 626     | 61.1        |
| 1890.....           | 81,434      | 1,374   | 16.9        | 9,518          | 580     | 60.9        | 1896.....           | 103,542     | 1,809   | 18.1        | 10,664         | 690     | 55.3        |
| 1891.....           | 85,452      | 1,388   | 16.2        | 9,888          | 529     | 53.5        | 1897.....           | 107,077     | 1,859   | 17.4        | 11,095         | 613     | 55.3        |
| 1892.....           | 89,669      | 1,433   | 16.0        | 10,272         | 530     | 54.5        | 1898.....           | 110,782     | 1,880   | 17.0        | 11,543         | 624     | 54.1        |
| 1893.....           | 94,094      | 1,484   | 15.8        | 10,672         | 484     | 45.4        | 1899.....           | 114,512     | 1,837   | 16.0        | 12,059         | 664     | 47.0        |
| 1894.....           | 98,737      | 1,498   | 15.1        | 11,087         | 577     | 62.0        | 1900.....           | 118,421     | 2,267   | 19.1        | 12,494         | 581     | 62.5        |
| 1895.....           | 103,609     | 1,483   | 14.3        | 11,517         | 421     | 36.6        | Yonkers, N. Y.:     |             |         |             |                |         |             |
| 1896.....           | 108,721     | 1,473   | 13.5        | 11,965         | 498     | 41.6        | 1890.....           | 82,033      | 585     | 18.8        | 8,435          | 280     | 67.0        |
| 1897.....           | 114,086     | 1,523   | 13.3        | 12,480         | 520     | 41.8        | 1891.....           | 83,850      | 692     | 20.7        | 8,624          | 286     | 78.9        |
| 1898.....           | 119,716     | 1,564   | 13.1        | 12,914         | 495     | 38.3        | 1892.....           | 84,722      | 743     | 21.4        | 8,824          | 330     | 66.3        |
| 1899.....           | 125,623     | 1,832   | 14.6        | 13,416         | 659     | 49.1        | 1893.....           | 86,150      | 637     | 19.0        | 4,035          | 295     | 78.1        |
| 1900.....           | 131,822     | 1,847   | 14.0        | 13,937         | 628     | 45.1        | 1894.....           | 87,660      | 793     | 21.1        | 4,258          | 378     | 57.6        |
| Trenton, N. J.:     |             |         |             |                |         |             | 1895.....           | 89,184      | 737     | 20.1        | 4,492          | 352     | 76.4        |
| 1890.....           | 57,458      | 1,015   | 17.7        | 6,295          | 413     | 65.6        | 1896.....           | 40,795      | 758     | 18.6        | 4,740          | 337     | 71.1        |
| 1891.....           | 58,875      | 929     | 15.8        | 6,426          | 400     | 62.2        | 1897.....           | 42,473      | 743     | 17.5        | 5,001          | 314     | 62.8        |
| 1892.....           | 60,827      | 1,177   | 21.8        | 6,561          | 529     | 80.6        | 1898.....           | 44,219      | 752     | 17.0        | 5,277          | 290     | 65.0        |
|                     |             |         |             |                |         |             |                     |             |         |             |                |         |             |

This table shows that there was a general lowering of the death rate in many of these cities during the ten years, and that this lowering was more or less progressive and continuous.

Taking the first city on the list—Albany—it will be seen that the death rate became lower each year after 1895, in which it was 24.8 per 1,000, until 1900, in which it was 19.0 per 1,000. This lowering was marked in the children under 5 years of age.

In the city of Troy the death rate increased from 23.6 in 1890 to 25.2 in 1900. Why has Troy a higher death rate than Albany? The only data given by the census tables for the answer to this question are the figures in Table 19, showing the number of deaths from each of certain diseases in each registration city. From the Table 3, page 10, we find that for the census year ending in June, 1900, the death rate per 100,000 of white population for consumption was: Albany, 245.3; Troy, 343.7. For typhoid fever the rate was: Albany, 44.1; Troy, 88.0. For diarrheal diseases: Albany, 72.1; Troy, 171.0. Evidently the causes of such great differences in the mortality from these diseases, all of which are more or less preventable, are worthy of careful investigation by the municipal authorities of Troy.

The statistics of the mortality from these diseases in these two cities for a series of years are not available, so that we can not tell whether the year ending June 30, 1900, was one of exceptionally high death rates from these causes in Troy.

To show how these data may be stated in the future under the improved methods of a permanent census, the data for the specified cities for the eleven years 1890-1900 have been obtained and compiled to show the annual death rates for each year for four principal causes of death, viz, consumption, pneumonia, typhoid fever, and diphtheria and croup, and the results are worth careful study.

#### CONSUMPTION.

Attention has been called above (page 9) to the fact that the lower death rate in 1900 as compared with 1890 is due in part to a lower death rate from consumption.

The following table shows the death rate per 100,000 from consumption in each of the specified cities, by groups according to locality for each of the eleven years 1890-1900, and the average for the whole period:

TABLE 5.—ANNUAL DEATH RATES DUE TO CONSUMPTION IN CERTAIN CITIES, PER 100,000 POPULATION: 1890 TO 1900.

| CITY..  | Average annual rate. | 1890 | 1891 | 1892 | 1893 | 1894 | 1895 | 1896 | 1897 | 1898 | 1899 | 1900 |
|---|----------------------|------|------|------|------|------|------|------|------|------|------|------|
| Average for cities in New England states.....     | 244                  | 307  | 267  | 263  | 253  | 253  | 246  | 248  | 227  | 219  | 213  | 214  |
| Boston, Mass.....                                 | 207                  | 333  | 295  | 302  | 284  | 291  | 269  | 259  | 246  | 281  | 225  | 222  |
| Fall River, Mass.....                             | 213                  | 281  | 236  | 205  | 212  | 182  | 199  | 250  | 220  | 217  | 202  | 175  |
| New Haven, Conn.....                              | 208                  | 285  | 210  | 187  | 221  | 217  | 206  | 197  | 196  | 210  | 185  | 182  |
| Providence, R. I.....                             | 229                  | 291  | 253  | 238  | 226  | 224  | 233  | 228  | 199  | 196  | 216  | 232  |
| Worcester, Mass.....                              | 210                  | 240  | 227  | 229  | 199  | 211  | 223  | 251  | 213  | 204  | 183  | 208  |
| Average for cities in Middle states..             | 259                  | 314  | 292  | 285  | 278  | 251  | 258  | 246  | 232  | 233  | 242  | 234  |
| Jersey City, N. J.....                            | 265                  | 305  | 302  | 286  | 283  | 261  | 268  | 288  | 258  | 222  | 250  | 256  |
| New York, N. Y.....                               | 287                  | 362  | 333  | 313  | 309  | 272  | 295  | 275  | 259  | 257  | 263  | 257  |
| Newark, N. J.....                                 | 288                  | 364  | 338  | 323  | 310  | 298  | 281  | 268  | 250  | 248  | 270  | 258  |
| Paterson, N. J.....                               | 248                  | 291  | 286  | 259  | 264  | 259  | 269  | 241  | 221  | 236  | 232  | 190  |
| Philadelphia, Pa.....                             | 224                  | 264  | 245  | 248  | 230  | 221  | 210  | 212  | 197  | 209  | 223  | 210  |
| Rochester, N. Y.....                              | 178                  | 185  | 179  | 208  | 206  | 182  | 190  | 195  | 146  | 162  | 152  | 132  |
| Syracuse, N. Y.....                               | 200                  | 205  | 255  | 301  | 240  | 202  | 176  | 177  | 194  | 171  | 144  | 159  |
| Average for cities in Lake states....             | 156                  | 178  | 180  | 173  | 174  | 159  | 150  | 149  | 140  | 142  | 146  | 142  |
| Buffalo, N. Y.....                                | 156                  | 195  | 208  | 200  | 169  | 172  | 151  | 138  | 138  | 128  | 135  | 120  |
| Chicago, Ill.....                                 | 164                  | 179  | 135  | 132  | 136  | 165  | 159  | 132  | 146  | 155  | 155  | 158  |
| Cleveland, Ohio.....                              | 136                  | 162  | 135  | 150  | 140  | 132  | 144  | 132  | 128  | 124  | 131  | 126  |
| Milwaukee, Wis.....                               | 132                  | 139  | 139  | 139  | 152  | 119  | 134  | 134  | 118  | 118  | 135  | 131  |
| Toledo, Ohio.....                                 | 139                  | 170  | 178  | 153  | 161  | 136  | 122  | 117  | 128  | 115  | 143  | 137  |
| Average for cities in Southern states.            | 277                  | 316  | 294  | 304  | 286  | 277  | 230  | 278  | 265  | 259  | 252  | 252  |
| Baltimore, Md.....                                | 233                  | 288  | 245  | 251  | 241  | 239  | 243  | 235  | 216  | 215  | 194  | 208  |
| Memphis, Tenn.....                                | 257                  | 313  | 320  | 301  | 248  | 242  | 255  | 245  | 239  | 204  | 258  | 241  |
| New Orleans, La.....                              | 325                  | 340  | 323  | 361  | 342  | 324  | 330  | 320  | 315  | 311  | 325  | 292  |
| Washington, D. C.....                             | 317                  | 345  | 350  | 344  | 325  | 311  | 305  | 327  | 311  | 306  | 281  | 294  |
| Average for cities in Western Central states..... | 183                  | 178  | 172  | 181  | 190  | 177  | 193  | 190  | 133  | 172  | 187  | 178  |
| Cincinnati, Ohio.....                             | 223                  | 255  | 215  | 214  | 244  | 234  | 237  | 234  | 213  | 201  | 214  | 195  |
| Indianapolis, Ind.....                            | 200                  | 112  | 195  | 245  | 155  | 208  | 218  | 187  | 221  | 183  | 179  | 218  |
| Kansas City, Mo.....                              | 143                  | 112  | 116  | 133  | 144  | 114  | 145  | 154  | 133  | 158  | 168  | 177  |
| Omaha, Nebr.....                                  | 86                   | 51   | 64   | 83   | 100  | 90   | 102  | 91   | 96   | 98   | 111  | 84   |
| St. Louis, Mo.....                                | 137                  | 137  | 138  | 133  | 203  | 176  | 198  | 197  | 136  | 172  | 194  | 175  |
| San Francisco, Cal.....                           | 304                  | 349  | 316  | 317  | 283  | 299  | 337  | 309  | 272  | 298  | 279  | 291  |

<sup>1</sup> Manhattan and Bronx boroughs only.

It will be seen from this table that the average death rate per 100,000 from consumption during this period of eleven years was, for the New England cities, 244, having steadily lessened from 307 in 1890 to 213 in 1899 and 214 in 1900.

In the cities of the Middle states the average death rate from this cause was 259, having fallen from 314 in 1890 to 234 in 1900. In the Southern cities the average rate was 277, having fallen from 316 in 1890 to 252 in 1900. The comparatively high death rates in these cities from this cause is due to the fact that they contain a large number of colored people who are especially liable to this disease. The statistics for the individual cities are especially interesting, but comparisons are left to the reader.

These death rates from consumption in the United States may be compared with the death rates from the same cause in Europe as given in an interesting paper in Zeitschrift für Hygiene, Leipzig, 1904, Vol. 46, page 543, and summed up in the following table:

TABLE 6.—Death rates due to consumption in certain European cities.

| LOCALITY.         | Period of observation. | Pulmonary tuberculosis. | Inflammation of lungs. |
|-------------------|------------------------|-------------------------|------------------------|
| <b>Countries:</b> |                        |                         |                        |
| Austria           | 1895-1900              |                         | 228                    |
| Belgium           | 1891-1900              | 268                     |                        |
| England           | 1891-1900              | 139                     | 123                    |
| Finland           | 1891-1900              | 266                     |                        |
| Germany           | 1892-1900              | 221                     | 138                    |
| Hungary           | 1897-1901              |                         | 230                    |
| Ireland           | 1891-1900              | 213                     |                        |
| Italy             | 1891-1900              | 168                     | 240                    |
| Netherlands       | 1901-1902              | 138                     |                        |
| Norway            | 1891-1900              | 189                     | 80                     |
| Scotland          | 1891-1900              | 172                     | 131                    |
| Switzerland       | 1891-1900              | 194                     |                        |
| <b>Cities in—</b> |                        |                         |                        |
| Austria           | 1896-1900              |                         | 244                    |
| Denmark           | 1890-1899              | 190                     | 182                    |
| France            | 1893-1898              | 253                     | 195                    |
| Germany           | 1891-1900              | 224                     |                        |
| Italy             | 1891-1900              |                         | 255                    |
| Roumania          | 1902                   | 329                     | 408                    |
| Spain             | 1901-1902              | 253                     | 225                    |
| Sweden            | 1891-1900              | 236                     | 175                    |
| Switzerland       | 1891-1900              | 243                     |                        |
| Moscow            | 1894-1897              | 345                     |                        |

PNEUMONIA.

The following table shows the death rate per 100,000 from pneumonia in each of the specified cities, by groups, according to locality, for each of the eleven years, with the average for the whole period:

TABLE 7.—ANNUAL DEATH RATES DUE TO PNEUMONIA IN CERTAIN CITIES, PER 100,000 POPULATION: 1890 TO 1900.

| CITY.  | Average annual rate. | 1890 | 1891 | 1892 | 1893 | 1894 | 1895 | 1896 | 1897 | 1898 | 1899 | 1900 |
|--|----------------------|------|------|------|------|------|------|------|------|------|------|------|
| Average for cities in New England states     | 220                  | 221  | 222  | 219  | 232  | 201  | 219  | 225  | 203  | 187  | 218  | 223  |
| Boston, Mass.                                | 249                  | 244  | 251  | 239  | 321  | 228  | 253  | 270  | 230  | 218  | 265  | 221  |
| Fall River, Mass.                            | 192                  | 173  | 162  | 220  | 241  | 180  | 172  | 208  | 221  | 137  | 185  | 206  |
| New Haven, Conn.                             | 172                  | 257  | 209  | 162  | 203  | 128  | 175  | 184  | 126  | 180  | 112  | 194  |
| Providence, R. I.                            | 188                  | 180  | 179  | 217  | 263  | 176  | 185  | 151  | 145  | 136  | 176  | 257  |
| Worcester, Mass.                             | 190                  | 167  | 182  | 175  | 218  | 188  | 188  | 170  | 191  | 199  | 183  | 278  |
| Average for cities in Middle states          | 268                  | 274  | 297  | 296  | 310  | 239  | 281  | 265  | 236  | 241  | 238  | 287  |
| New York, N. Y. <sup>1</sup>                 | 314                  | 329  | 373  | 363  | 391  | 276  | 326  | 296  | 247  | 275  | 272  | 329  |
| Philadelphia, Pa.                            | 207                  | 194  | 197  | 202  | 202  | 188  | 222  | 227  | 221  | 200  | 191  | 229  |
| Scranton, Pa.                                | 108                  | 290  | 165  | 228  | 142  | 170  | 171  | 128  | 161  | 108  | 128  | 183  |
| Average for cities in Lake states            | 159                  | 192  | 239  | 195  | 181  | 120  | 151  | 127  | 127  | 135  | 170  | 164  |
| Buffalo, N. Y.                               | 100                  | 190  | 245  | 196  | 129  | 83   | 99   | 71   | 72   | 61   | 67   | 50   |
| Chicago, Ill.                                | 180                  | 180  | 252  | 200  | 195  | 116  | 173  | 150  | 144  | 159  | 211  | 200  |
| Cleveland, Ohio                              | 176                  | 233  | 210  | 194  | 189  | 287  | 162  | 132  | 142  | 153  | 153  | 167  |
| Milwaukee, Wis.                              | 99                   |      |      |      |      | 105  | 112  | 95   | 93   | 85   | 102  | 105  |
| Toledo, Ohio                                 | 99                   | 109  | 181  | 133  | 117  | 90   | 84   | 50   | 79   | 88   | 107  | 120  |
| Average for cities in Southern states        | 139                  | 206  | 204  | 183  | 173  | 156  | 200  | 196  | 158  | 174  | 180  | 231  |
| Baltimore, Md.                               | 193                  | 226  | 214  | 132  | 181  | 171  | 198  | 185  | 156  | 180  | 179  | 256  |
| Memphis, Tenn.                               | 169                  | 127  | 170  | 122  | 119  | 90   | 161  | 107  | 103  | 204  | 225  | 358  |
| New Orleans, La.                             | 189                  | 203  | 166  | 193  | 171  | 139  | 234  | 251  | 184  | 154  | 207  | 225  |
| Washington, D. C.                            | 187                  | 195  | 235  | 214  | 191  | 168  | 173  | 187  | 203  | 174  | 175  | 145  |
| Average for cities in Western Central states | 142                  | 144  | 174  | 141  | 153  | 119  | 139  | 132  | 147  | 145  | 141  | 146  |
| Cincinnati, Ohio                             | 181                  | 205  | 237  | 190  | 217  | 101  | 208  | 176  | 161  | 162  | 143  | 145  |
| Indianapolis, Ind.                           | 104                  |      | 95   | 85   | 95   | 74   | 143  | 94   | 100  | 94   | 102  | 139  |
| Kansas City, Mo.                             | 117                  | 152  | 92   | 76   | 86   | 71   | 102  | 85   | 128  | 110  | 213  | 156  |
| Minneapolis, Minn.                           | 125                  | 87   | 142  | 232  | 145  | 116  | 140  | 131  | 79   | 121  | 111  | 105  |
| Omaha, Nebr.                                 | 70                   |      |      | 58   | 55   | 44   | 45   | 30   | 36   | 39   | 39   | 119  |
| St. Louis, Mo.                               | 167                  | 133  | 201  | 149  | 181  | 135  | 133  | 164  | 216  | 178  | 163  | 130  |
| St. Paul, Minn.                              | 103                  | 109  | 126  | 118  | 95   | 132  | 117  | 96   | 73   | 162  | 85   | 92   |
| San Francisco, Cal.                          | 181                  | 225  | 200  | 231  | 154  | 163  | 154  | 144  | 156  | 193  | 206  | 138  |

<sup>1</sup> Manhattan and Bronx boroughs only.

It will be seen from this table that the death rate from pneumonia in these cities has not diminished, but has, upon the whole, increased during the eleven years in question, being in strong contrast to the death rate from consumption, which has diminished, and this is also true for European countries and cities.

While the specific micro-organism which is the cause of most of the fatal cases reported as due to pneumonia has been known for more than ten years, preventive medicine has not yet developed any satisfactory means of lessening the number of cases of this disease, and no method of treatment has yet been discovered which decidedly influences the mortality in persons attacked by it. Its prevalence in a particular locality appears to be in part influenced by race, negroes and persons of

Irish descent showing a high mortality from this cause. The figures on pages cexvii-cexxi of Vol. III of Vital Statistics for 1900, showing the death rates from pneumonia in relation to age, sex, color and race, and locality, taken in connection with the corresponding figures in the report for 1890, give information which is not to be found elsewhere, and should be carefully considered by those who are investigating this disease.

#### TYPHOID FEVER.

The following table shows the death rate per 100,000 from typhoid fever in each of the specified cities, by groups according to locality, for each of the eleven years, with the average for the whole period:

TABLE 8.—ANNUAL DEATH RATES DUE TO TYPHOID FEVER IN CERTAIN CITIES, PER 100,000 POPULATION: 1890 TO 1900.

| CITY.   | Average annual rate. | 1890 | 1891 | 1892 | 1893 | 1894 | 1895 | 1896 | 1897 | 1898 | 1899 | 1900 |
|---|----------------------|------|------|------|------|------|------|------|------|------|------|------|
| Average for cities in New England states.....     | 30                   | 31   | 35   | 30   | 31   | 33   | 32   | 28   | 28   | 29   | 27   | 25   |
| Boston, Mass.....                                 | 31                   | 30   | 34   | 29   | 31   | 29   | 33   | 32   | 33   | 35   | 30   | 26   |
| Fall River, Mass.....                             | 34                   | 54   | 64   | 34   | 22   | 36   | 33   | 30   | 42   | 19   | 22   | 28   |
| New Haven, Conn.....                              | 29                   | 28   | 20   | 29   | 30   | 30   | 33   | 28   | 25   | 35   | 23   | 26   |
| Providence, R. I.....                             | 30                   | 30   | 45   | 37   | 35   | 47   | 30   | 26   | 15   | 24   | 25   | 23   |
| Worcester, Mass.....                              | 21                   | 17   | 13   | 19   | 32   | 32   | 26   | 16   | 14   | 16   | 18   | 26   |
| Average for cities in Middle states.....          | 32                   | 45   | 45   | 37   | 33   | 26   | 30   | 27   | 23   | 31   | 36   | 24   |
| Jersey City, N. J.....                            | 59                   | 98   | 100  | 72   | 66   | 54   | 95   | 84   | 20   | 40   | 19   | 21   |
| New York, N. Y. <sup>1</sup> .....                | 20                   | 23   | 25   | 25   | 23   | 19   | 18   | 16   | 16   | 20   | 15   | 13   |
| Newark, N. J.....                                 | 38                   | 107  | 72   | 79   | 32   | 21   | 20   | 28   | 20   | 13   | 36   | 10   |
| Paterson, N. J.....                               | 36                   | 29   | 21   | 18   | 41   | 37   | 26   | 46   | 51   | 38   | 58   | 28   |
| Philadelphia, Pa.....                             | 46                   | 64   | 64   | 40   | 41   | 33   | 40   | 34   | 33   | 52   | 75   | 35   |
| Rochester, N. Y.....                              | 26                   | 34   | 37   | 51   | 41   | 12   | 29   | 18   | 28   | 12   | 20   | 18   |
| Scranton, Pa.....                                 | 27                   | 24   | 32   | 41   | 28   | 25   | 38   | 27   | 14   | 26   | 25   | 29   |
| Syracuse, N. Y.....                               | 33                   | 33   | 49   | 33   | 31   | 43   | 30   | 30   | 21   | 43   | 25   | 29   |
| Average for cities in Lake states.....            | 48                   | 74   | 120  | 90   | 49   | 39   | 35   | 43   | 26   | 35   | 27   | 26   |
| Buffalo, N. Y.....                                | 34                   | 41   | 49   | 36   | 40   | 64   | 29   | 22   | 22   | 30   | 26   | 26   |
| Chicago, Ill.....                                 | 58                   | 92   | 174  | 124  | 64   | 33   | 38   | 53   | 29   | 41   | 27   | 20   |
| Cleveland, Ohio.....                              | 43                   | 70   | 57   | 59   | 52   | 29   | 37   | 43   | 21   | 34   | 32   | 54   |
| Milwaukee, Wis.....                               | 28                   | 36   | 36   | 35   | 42   | 30   | 26   | 18   | 12   | 17   | 17   | 21   |
| Toledo, Ohio.....                                 | 33                   | 47   | 30   | 40   | 28   | 31   | 39   | 34   | 32   | 26   | 32   | 39   |
| Average for cities in Southern states.....        | 50                   | 64   | 47   | 49   | 49   | 56   | 50   | 48   | 45   | 52   | 47   | 47   |
| Baltimore, Md.....                                | 46                   | 69   | 43   | 50   | 56   | 56   | 41   | 48   | 43   | 41   | 31   | 37   |
| Memphis, Tenn.....                                | 40                   | 54   | 67   | 30   | 30   | 53   | 39   | 45   | 38   | 25   | 40   | 35   |
| New Orleans, La.....                              | 37                   | 21   | 24   | 20   | 15   | 29   | 43   | 34   | 52   | 66   | 55   | 40   |
| Washington, D. C.....                             | 74                   | 101  | 75   | 82   | 78   | 85   | 79   | 56   | 46   | 63   | 71   | 78   |
| Average for cities in Western Central states..... | 33                   | 45   | 43   | 55   | 49   | 40   | 35   | 31   | 32   | 29   | 30   | 33   |
| Cincinnati, Ohio.....                             | 45                   | 69   | 62   | 40   | 44   | 55   | 39   | 52   | 32   | 33   | 38   | 37   |
| Indianapolis, Ind.....                            | 52                   | 36   | 36   | 55   | 104  | 48   | 91   | 49   | 37   | 31   | 40   | 44   |
| Kansas City, Mo.....                              | 35                   | 52   | 42   | 33   | 39   | 26   | 27   | 23   | 28   | 37   | 36   | 40   |
| Minneapolis, Minn.....                            | 50                   | 41   | 55   | 44   | 76   | 56   | 48   | 32   | 78   | 44   | 36   | 39   |
| Omaha, Nebr.....                                  | 23                   | 36   | 21   | 14   | 17   | 32   | 24   | 16   | 20   | 29   | 25   | 28   |
| St. Louis, Mo.....                                | 33                   | 31   | 36   | 93   | 44   | 34   | 21   | 20   | 23   | 19   | 23   | 29   |
| St. Paul, Minn.....                               | 28                   | 49   | 45   | 34   | 36   | 22   | 26   | 25   | 14   | 28   | 19   | 22   |
| San Francisco, Cal.....                           | 37                   | 50   | 45   | 37   | 34   | 36   | 38   | 31   | 23   | 17   | 52   | 41   |

<sup>1</sup> Manhattan and Bronx boroughs only.

The data in this table indicate that there has been some diminution in the death rate from typhoid fever, but that the mortality has varied greatly in different cities in different years, due to epidemic outbreaks of greater or less severity.

The specific cause of typhoid fever is known, and the modes by which it is spread in a community are fairly well understood. It is a preventable disease, but in many cities it is not prevented.

## DIPHTHERIA AND CROUP.

The following table shows the death rate per 100,000 from diphtheria and croup in each of the specified cities, by groups according to locality, for each of the eleven years, with the average for the whole period:

TABLE 9.—ANNUAL DEATH RATES DUE TO DIPHTHERIA AND CROUP IN CERTAIN CITIES, PER 100,000 POPULATION: 1890 TO 1900.

| CITY.   | Average annual rate. | 1890 | 1891 | 1892 | 1893 | 1894 | 1895 | 1896 | 1897 | 1898 | 1899 | 1900 |
|---|----------------------|------|------|------|------|------|------|------|------|------|------|------|
| Average for cities in New England states.....     | 77                   | 94   | 56   | 88   | 90   | 121  | 98   | 99   | 73   | 31   | 42   | 66   |
| Boston, Mass.....                                 | 97                   | 163  | 62   | 108  | 114  | 179  | 130  | 112  | 87   | 35   | 55   | 96   |
| Fall River, Mass.....                             | 44                   | 69   | 30   | 74   | 85   | 49   | 70   | 72   | 30   | 18   | 21   | 25   |
| New Haven, Conn.....                              | 67                   | 122  | 66   | 93   | 115  | 71   | 32   | 99   | 85   | 33   | 22   | 17   |
| Providence, R. I.....                             | 52                   | 95   | 47   | 52   | 51   | 35   | 68   | 95   | 56   | 25   | 26   | 39   |
| Worcester, Mass.....                              | 54                   | 40   | 49   | 76   | 52   | 74   | 68   | 65   | 54   | 32   | 37   | 46   |
| Average for cities in Middle states.....          | 101                  | 114  | 124  | 139  | 129  | 139  | 106  | 100  | 95   | 68   | 62   | 66   |
| Jersey City, N. J.....                            | 123                  | 209  | 177  | 158  | 126  | 152  | 102  | 159  | 119  | 79   | 51   | 58   |
| New York, N. Y.†.....                             | 102                  | 118  | 126  | 131  | 154  | 168  | 112  | 97   | 85   | 48   | 56   | 62   |
| Newark, N. J.....                                 | 99                   | 173  | 105  | 118  | 138  | 84   | 121  | 151  | 79   | 51   | 53   | 54   |
| Paterson, N. J.....                               | 126                  | 87   | 200  | 171  | 112  | 171  | 94   | 134  | 184  | 69   | 84   | 96   |
| Philadelphia, Pa.....                             | 107                  | 90   | 127  | 161  | 104  | 128  | 110  | 97   | 113  | 93   | 79   | 81   |
| Rochester, N. Y.....                              | 64                   | 75   | 89   | 157  | 104  | 73   | 42   | 52   | 46   | 28   | 38   | 29   |
| Scranton, Pa.....                                 | 70                   | 182  | 71   | 58   | 13   | 21   | 54   | 72   | 72   | 54   | 98   | 87   |
| Syracuse, N. Y.....                               | 51                   | 57   | 85   | 82   | 125  | 70   | 22   | 41   | 58   | 44   | 21   | 20   |
| Average for cities in Lake states.....            | 79                   | 119  | 118  | 123  | 104  | 93   | 98   | 76   | 49   | 38   | 51   | 46   |
| Buffalo, N. Y.....                                | 53                   | 43   | 63   | 65   | 62   | 74   | 81   | 79   | 62   | 26   | 24   | 19   |
| Chicago, Ill.....                                 | 56                   | 115  | 118  | 129  | 117  | 107  | 119  | 77   | 52   | 44   | 56   | 50   |
| Cleveland, Ohio.....                              | 68                   | 104  | 109  | 120  | 92   | 60   | 62   | 73   | 38   | 41   | 32   | 48   |
| Milwaukee, Wis.....                               | 91                   | 196  | 189  | 188  | 93   | 101  | 74   | 79   | 41   | 23   | 40   | 44   |
| Toledo, Ohio.....                                 | 33                   | 268  | 128  | 79   | 110  | 37   | 42   | 55   | 22   | 30   | 128  | 79   |
| Average for cities in Southern states.....        | 54                   | 66   | 80   | 69   | 52   | 57   | 46   | 41   | 52   | 47   | 43   | 44   |
| Baltimore, Md.....                                | 68                   | 73   | 89   | 95   | 46   | 50   | 66   | 59   | 85   | 63   | 56   | 71   |
| Memphis, Tenn.....                                | 17                   | 50   | 49   | 17   | 19   | 19   | 25   | 6    | 7    | 5    | 10   | 5    |
| New Orleans, La.....                              | 31                   | 56   | 44   | 46   | 50   | 61   | 33   | 20   | 17   | 5    | 7    | 13   |
| Washington, D. C.....                             | 62                   | 68   | 107  | 60   | 77   | 78   | 26   | 41   | 44   | 70   | 70   | 41   |
| Average for cities in Western Central states..... | 61                   | 95   | 87   | 78   | 64   | 61   | 87   | 58   | 36   | 32   | 33   | 47   |
| Cincinnati, Ohio.....                             | 87                   | 165  | 107  | 105  | 68   | 74   | 51   | 55   | 45   | 23   | 20   | 26   |
| Indianapolis, Ind.....                            | 89                   | 157  | 156  | 110  | 59   | 59   | 100  | 39   | 23   | 28   | 40   | 33   |
| Kansas City, Mo.....                              | 39                   | 26   | 45   | 22   | 85   | 45   | 64   | 61   | 33   | 30   | 29   | 42   |
| Minneapolis, Minn.....                            | 45                   | 114  | 63   | 41   | 28   | 30   | 62   | 56   | 15   | 15   | 23   | 53   |
| Omaha, Nebr.....                                  | 57                   | 129  | 115  | 85   | 49   | 53   | 34   | 40   | 36   | 15   | 19   | 20   |
| St. Louis, Mo.....                                | 33                   | 54   | 74   | 60   | 76   | 76   | 136  | 72   | 45   | 47   | 43   | 71   |
| St. Paul, Minn.....                               | 56                   | 90   | 74   | 108  | 64   | 42   | 73   | 48   | 30   | 42   | 26   | 35   |
| San Francisco, Cal.....                           | 51                   | 61   | 151  | 104  | 73   | 24   | 15   | 14   | 33   | 46   | 32   | 23   |

† Manhattan and Bronx boroughs only.

It will be seen from this table that the death rates from diphtheria and croup diminished during the eleven years, but that this diminution was by no means systematic and continuous, and that the different cities suffered from epidemics of diphtheria in different years. On the whole, however, there has been a marked diminution in the mortality from this cause for the last five as compared with the first six years of the period, which diminution is probably due quite as much to improved methods of treatment as to sanitary measures.

## DISEASES OF OLD AGE.

Allusion has been made above (page 9) to the increased mortality from pneumonia, cancer, heart disease, apoplexy, diseases of the kidney, and other diseases of old age. A similar increase has taken place in European cities. An increased proportion of deaths in old age is of course to be expected whenever the death rates of

the young have been lowered for a considerable length of time. So far as we know at present the potential longevity of man is nearly a fixed period of about 100 years. The effects of practical hygiene are to diminish the number of deaths in the first half of this period and thus to preserve and extend the number of lives reaching into the latter half of this period. But the increasing mortality from the diseases of old age in the total population, which is a necessary consequence of progressively improving hygiene, does not necessarily imply an increased mortality in the old age group; that is to say, the death rate of persons between 60 and 70 years of age not only may not increase but may actually diminish, for the simple reason that the proportion of persons of this age group living has increased; and the same may be said with regard to the death rates from particular causes, such as cancer, diseases of the circulatory system, etc., and which specially affect persons advanced in life.

## EXPECTATION OF LIFE.

If we compare the death rates from cancer in the registration area of 1890 with that in the registration area of 1900,<sup>1</sup> we find that the death rate from cancer per 100,000 population was 49.1 in 1890 and 60 in 1900. If we take the death rates for the age groups 45 to 64 and 65 and over, we find that in the first group the death rate per 100,000 of population was, in 1890, 162.0, and in 1900, 194.8; and in the second group it was, in 1890, 351.9, and in 1900, 454.3, which shows that there was a marked increase in the death rate from cancer in old age from 1890 to 1900. This increase is well worth more detailed statistical investigation, showing for each of the large cities for each year for a series of years the death rates from cancer in each of certain age groups, with distinctions of sex and color.

Cancer is taken merely as an illustration. The same comparisons should be made for diseases of the brain, of the kidney, of the heart, etc., a matter of great interest and importance in preventive medicine.

If the data for population and deaths were sufficiently complete to permit of the computation of mortality statistics for the United States as a whole and for each individual state, which statistics should be as accurate as those for the principal European countries, the results for such large and diversified areas would be of but little greater interest and value than those we already have. We know that the death rate of the country, taken as a whole, is low, and that there are differences in the death rates of different states amounting to 4 or 5 per thousand for the whites, but these facts do not answer most of the questions which are of the greatest interest in sociology, in political science, in practical hygiene, and in life insurance.

<sup>1</sup> Eleventh Census, Vol. XI, page 345; Twelfth Census, Vol. III, page clxxxvi.

The ideal answers to these questions would be an extensive series of life tables which would show for each sex of each race the expectation of life at each age, for each city of, say 10,000 inhabitants and upward, and for each of a certain number of occupations, with corresponding tables for each group, showing the principal causes of death.

We can not compute from the census data life tables of sufficient accuracy for useful comparisons—not even for the states and cities which have a fairly complete registration of deaths—because the data for the number of living persons in each group are not only incomplete and inaccurate, but irregularly so, varying as to accuracy in different cities and in different parts of large cities. The most important of these defects from the life-table point of view is the incomplete enumeration of children under 5 years, and especially under 1 year of age, and the absence of reliable information as to the number of births. While I do not think that the number of living children under 1 year of age not reported by the census enumerators in 1900 was as great as is estimated by Mr. King, i. e., from 25 to 30 per cent (Twelfth Census, Volume III, page liv), there was no doubt a deficiency—and this deficiency was much greater in some localities than in others.

Approximate life tables for a few localities were given in the Report on Vital Statistics of the Tenth and Eleventh censuses, but the time limit fixed for the completion of the Twelfth Census report did not permit the extensive computations necessary. Since that report was published a number of similar tables showing the expectation of life in 1900 have been computed, and the results are given below, in comparison with the corresponding results for the two preceding censuses.

TABLE 10.—EXPECTATION OF LIFE IN CERTAIN CITIES.

| BALTIMORE, MD. (WHITE). |        |          |          |                       |          |          |        |          | BOSTON, MASS. (WHITE). |      |        |          |          |                       |          |          |        |          |          |
|-------------------------|--------|----------|----------|-----------------------|----------|----------|--------|----------|------------------------|------|--------|----------|----------|-----------------------|----------|----------|--------|----------|----------|
| AGE.                    | 1900   |          |          | Six years, 1884-1890. |          |          | 1880   |          |                        | AGE. | 1900   |          |          | Six years, 1884-1890. |          |          | 1880   |          |          |
|                         | Males. | Females. | Persons. | Males.                | Females. | Persons. | Males. | Females. | Persons.               |      | Males. | Females. | Persons. | Males.                | Females. | Persons. | Males. | Females. | Persons. |
| 0                       | 40.69  | 44.62    | 42.66    | 38.82                 | 41.84    | 40.33    | 36.49  | 39.86    | 38.18                  | 0    | 39.91  | 43.11    | 41.51    | 33.65                 | 36.12    | 34.89    | 37.04  | 39.11    | 38.08    |
| 1                       | 49.41  | 52.52    | 50.97    | 48.12                 | 50.36    | 49.24    | 44.73  | 47.96    | 46.06                  | 1    | 48.61  | 50.16    | 49.39    | 43.19                 | 44.78    | 43.99    | 46.20  | 47.10    | 46.65    |
| 2                       | 50.92  | 53.90    | 52.41    | 51.85                 | 54.22    | 53.04    | 48.42  | 51.18    | 49.80                  | 2    | 50.42  | 52.06    | 51.24    | 46.94                 | 48.44    | 47.69    | 49.63  | 50.15    | 49.84    |
| 3                       | 50.96  | 53.84    | 52.40    | 52.20                 | 54.56    | 53.38    | 49.77  | 52.33    | 51.05                  | 3    | 50.79  | 52.41    | 51.60    | 47.67                 | 49.08    | 48.38    | 50.32  | 50.72    | 50.52    |
| 4                       | 50.80  | 53.69    | 52.25    | 52.11                 | 54.33    | 53.22    | 50.27  | 52.90    | 51.59                  | 4    | 50.95  | 52.27    | 51.61    | 47.75                 | 49.82    | 48.54    | 50.73  | 51.07    | 50.93    |
| 5                       | 50.39  | 53.28    | 51.84    | 51.07                 | 54.02    | 52.85    | 50.46  | 52.99    | 51.78                  | 5    | 50.56  | 51.93    | 51.25    | 47.65                 | 49.18    | 48.42    | 50.71  | 51.00    | 50.86    |
| 10                      | 46.63  | 49.87    | 48.25    | 48.18                 | 50.41    | 49.30    | 48.50  | 50.83    | 49.87                  | 10   | 46.76  | 48.50    | 47.63    | 44.76                 | 46.49    | 45.62    | 47.49  | 48.42    | 47.96    |
| 15                      | 42.30  | 45.69    | 43.55    | 43.85                 | 46.14    | 45.00    | 44.35  | 46.58    | 45.47                  | 15   | 42.92  | 44.21    | 43.27    | 40.61                 | 42.43    | 41.62    | 43.20  | 44.15    | 43.68    |
| 20                      | 38.39  | 41.55    | 39.88    | 39.87                 | 42.19    | 41.03    | 40.35  | 42.65    | 41.51                  | 20   | 38.38  | 40.32    | 39.35    | 36.96                 | 38.97    | 37.97    | 39.58  | 40.70    | 40.14    |
| 25                      | 34.75  | 37.79    | 36.27    | 36.31                 | 38.84    | 37.48    | 36.85  | 39.27    | 38.07                  | 25   | 34.93  | 36.55    | 35.74    | 33.81                 | 35.69    | 34.70    | 36.40  | 37.58    | 36.99    |
| 30                      | 31.80  | 34.20    | 32.75    | 32.96                 | 35.26    | 34.11    | 33.45  | 35.04    | 34.75                  | 30   | 31.65  | 33.09    | 32.37    | 30.80                 | 32.47    | 31.64    | 33.31  | 34.36    | 33.84    |
| 35                      | 27.85  | 30.61    | 29.23    | 29.60                 | 31.87    | 30.74    | 30.04  | 32.81    | 31.48                  | 35   | 28.36  | 29.63    | 29.00    | 27.79                 | 29.34    | 28.57    | 30.22  | 31.13    | 30.63    |
| 40                      | 24.68  | 27.06    | 25.87    | 26.38                 | 28.48    | 27.43    | 26.79  | 29.40    | 28.05                  | 40   | 25.01  | 26.21    | 25.61    | 24.80                 | 26.26    | 25.53    | 26.86  | 27.86    | 27.86    |
| 45                      | 21.61  | 23.50    | 22.61    | 23.15                 | 25.08    | 24.12    | 23.35  | 25.99    | 24.67                  | 45   | 21.65  | 22.79    | 22.22    | 21.81                 | 23.17    | 22.49    | 23.51  | 24.58    | 24.05    |
| 50                      | 18.55  | 20.14    | 19.35    | 20.04                 | 21.64    | 20.84    | 19.96  | 22.58    | 21.27                  | 50   | 18.60  | 19.57    | 19.09    | 18.87                 | 20.12    | 19.50    | 20.48  | 21.33    | 20.91    |
| 55                      | 15.58  | 16.77    | 16.18    | 16.93                 | 18.20    | 17.57    | 16.56  | 19.10    | 17.86                  | 55   | 15.55  | 16.35    | 16.95    | 15.92                 | 17.06    | 16.49    | 17.44  | 18.08    | 17.70    |
| 60                      | 13.08  | 14.09    | 13.59    | 14.20                 | 15.24    | 14.72    | 14.06  | 15.96    | 15.01                  | 60   | 13.03  | 13.84    | 13.34    | 13.41                 | 14.36    | 13.89    | 14.68  | 15.29    | 14.99    |
| 65                      | 10.87  | 11.40    | 10.99    | 11.46                 | 12.27    | 11.87    | 11.57  | 12.77    | 12.17                  | 65   | 10.51  | 10.98    | 10.72    | 10.90                 | 11.65    | 11.28    | 11.93  | 12.50    | 12.22    |
| 70                      | 9.11   | 9.62     | 9.37     | 9.47                  | 10.09    | 9.73     | 10.09  | 10.40    | 10.25                  | 70   | 8.85   | 9.26     | 9.06     | 9.07                  | 9.64     | 9.36     | 9.90   | 10.26    | 10.08    |
| 75                      | 7.65   | 7.88     | 7.74     | 7.48                  | 7.90     | 7.69     | 8.61   | 8.08     | 8.32                   | 75   | 7.19   | 7.58     | 7.39     | 7.23                  | 7.68     | 7.48     | 7.87   | 8.02     | 7.95     |
| 80                      | 6.64   | 6.60     | 6.62     | 6.59                  | 6.74     | 6.67     | 7.39   | 6.90     | 7.15                   | 80   | 6.22   | 6.47     | 6.25     | 6.30                  | 6.58     | 6.44     | 7.22   | 7.06     | 7.14     |
| 85                      | 5.63   | 5.36     | 5.50     | 5.70                  | 5.53     | 5.64     | 6.17   | 5.78     | 5.98                   | 85   | 5.25   | 5.35     | 5.30     | 5.36                  | 5.53     | 5.45     | 6.57   | 6.09     | 6.33     |
| 90                      | 4.07   | 3.93     | 4.00     |                       |          |          |        |          |                        | 90   | 3.88   | 3.93     | 3.91     |                       |          |          |        |          |          |
| 95                      | 2.50   | 2.50     | 2.50     |                       |          |          |        |          |                        | 95   | 2.50   | 2.50     | 2.50     |                       |          |          |        |          |          |



TABLE 10.—EXPECTATION OF LIFE IN CERTAIN CITIES—Continued.

| BROOKLYN, N. Y. (WHITE). |        |          |          |                       |          |          |        |          | MASSACHUSETTS (WHITE). |      |        |          |          |                       |          |          |        |          |          |
|--------------------------|--------|----------|----------|-----------------------|----------|----------|--------|----------|------------------------|------|--------|----------|----------|-----------------------|----------|----------|--------|----------|----------|
| AGE.                     | 1900   |          |          | Six years, 1884-1890. |          |          | 1880   |          |                        | AGE. | 1900   |          |          | Six years, 1884-1890. |          |          | 1880   |          |          |
|                          | Males. | Females. | Persons. | Males.                | Females. | Persons. | Males. | Females. | Persons.               |      | Males. | Females. | Persons. | Males.                | Females. | Persons. | Males. | Females. | Persons. |
| 0                        | 89.25  | 42.46    | 40.86    | 32.77                 | 36.02    | 34.40    | 37.52  | 39.70    | 38.61                  | 0    | 44.29  | 47.80    | 46.05    | 40.89                 | 42.59    | 41.49    | 44.06  | 45.22    | 44.64    |
| 1                        | 47.79  | 49.68    | 48.71    | 42.00                 | 44.49    | 43.25    | 45.48  | 46.40    | 45.91                  | 1    | 53.13  | 54.96    | 54.05    | 49.29                 | 50.40    | 49.85    | 51.18  | 51.20    | 51.19    |
| 2                        | 50.27  | 51.96    | 51.12    | 46.09                 | 48.55    | 47.32    | 49.13  | 50.20    | 49.67                  | 2    | 54.64  | 56.28    | 55.46    | 52.13                 | 53.15    | 52.64    | 53.39  | 53.06    | 53.18    |
| 3                        | 50.74  | 52.31    | 51.58    | 46.91                 | 49.35    | 48.13    | 50.09  | 51.24    | 50.67                  | 3    | 54.69  | 56.81    | 55.50    | 52.37                 | 53.45    | 52.91    | 53.88  | 53.60    | 53.74    |
| 4                        | 50.63  | 52.28    | 51.46    | 47.29                 | 49.60    | 48.45    | 50.38  | 51.56    | 50.97                  | 4    | 54.42  | 55.97    | 55.20    | 52.20                 | 53.29    | 52.75    | 54.05  | 53.75    | 53.90    |
| 5                        | 50.17  | 51.91    | 51.04    | 47.26                 | 49.57    | 48.42    | 50.47  | 51.58    | 51.03                  | 5    | 53.90  | 55.50    | 54.70    | 51.93                 | 53.02    | 52.48    | 53.92  | 53.67    | 53.80    |
| 10                       | 46.64  | 48.47    | 47.56    | 44.50                 | 47.05    | 45.81    | 48.09  | 49.14    | 48.62                  | 10   | 50.15  | 51.70    | 50.93    | 48.83                 | 49.97    | 49.40    | 51.01  | 50.93    | 50.97    |
| 15                       | 42.21  | 44.17    | 43.19    | 40.38                 | 42.99    | 41.69    | 43.79  | 45.04    | 44.42                  | 15   | 45.79  | 47.49    | 46.64    | 44.78                 | 45.98    | 45.38    | 46.85  | 46.86    | 46.86    |
| 20                       | 38.12  | 40.20    | 39.16    | 36.64                 | 39.12    | 37.83    | 39.76  | 40.97    | 40.37                  | 20   | 41.79  | 43.54    | 42.67    | 41.09                 | 42.42    | 41.76    | 43.09  | 43.49    | 43.29    |
| 25                       | 34.52  | 36.57    | 35.55    | 33.26                 | 35.62    | 34.44    | 36.25  | 37.64    | 36.95                  | 25   | 38.23  | 39.71    | 38.97    | 37.79                 | 39.04    | 38.42    | 39.81  | 40.44    | 40.18    |
| 30                       | 31.23  | 33.19    | 32.21    | 30.18                 | 32.42    | 31.30    | 32.92  | 34.47    | 33.70                  | 30   | 34.66  | 36.07    | 35.37    | 34.50                 | 35.76    | 35.13    | 36.38  | 37.28    | 36.88    |
| 35                       | 27.93  | 29.80    | 28.87    | 27.10                 | 29.22    | 28.16    | 29.60  | 31.30    | 30.45                  | 35   | 31.09  | 32.42    | 31.76    | 31.20                 | 32.48    | 31.84    | 32.96  | 34.13    | 33.55    |
| 40                       | 24.75  | 26.41    | 25.58    | 24.12                 | 26.07    | 25.10    | 26.34  | 28.12    | 27.23                  | 40   | 27.49  | 28.79    | 28.14    | 27.86                 | 29.17    | 28.52    | 29.48  | 30.78    | 30.15    |
| 45                       | 21.50  | 23.02    | 22.29    | 21.13                 | 22.91    | 22.02    | 23.08  | 24.94    | 24.01                  | 45   | 23.89  | 25.16    | 24.53    | 24.51                 | 25.86    | 25.19    | 26.01  | 27.49    | 26.72    |
| 50                       | 18.72  | 19.79    | 19.26    | 18.27                 | 19.85    | 19.06    | 20.10  | 21.62    | 20.86                  | 50   | 20.57  | 21.74    | 21.16    | 21.33                 | 22.56    | 21.95    | 22.52  | 23.93    | 23.28    |
| 55                       | 15.87  | 16.56    | 16.22    | 15.40                 | 16.79    | 16.10    | 17.12  | 18.30    | 17.71                  | 55   | 17.25  | 18.32    | 17.79    | 18.15                 | 19.25    | 18.70    | 19.02  | 20.43    | 19.73    |
| 60                       | 13.42  | 14.08    | 13.75    | 13.12                 | 14.16    | 13.64    | 14.44  | 15.48    | 14.96                  | 60   | 14.48  | 15.41    | 14.95    | 15.85                 | 16.32    | 15.84    | 15.98  | 17.20    | 16.62    |
| 65                       | 10.96  | 11.59    | 11.28    | 10.84                 | 11.53    | 11.19    | 11.76  | 12.66    | 12.21                  | 65   | 11.70  | 12.50    | 12.10    | 12.54                 | 13.38    | 12.95    | 12.95  | 14.08    | 13.52    |
| 70                       | 9.22   | 9.70     | 9.46     | 9.07                  | 9.63     | 9.35     | 9.73   | 10.58    | 10.16                  | 70   | 9.69   | 10.81    | 10.00    | 10.38                 | 11.03    | 10.71    | 10.63  | 11.60    | 11.12    |
| 75                       | 7.47   | 7.81     | 7.64     | 7.29                  | 7.72     | 7.51     | 7.70   | 8.49     | 8.10                   | 75   | 7.68   | 8.12     | 7.90     | 8.21                  | 8.68     | 8.45     | 8.31   | 9.13     | 8.72     |
| 80                       | 6.48   | 6.61     | 6.55     | 6.33                  | 6.56     | 6.45     | 6.62   | 7.17     | 6.90                   | 80   | 6.57   | 6.83     | 6.70     | 6.91                  | 7.17     | 7.04     | 7.06   | 7.62     | 7.34     |
| 85                       | 5.49   | 5.41     | 5.45     | 5.36                  | 5.40     | 5.38     | 5.53   | 5.85     | 5.69                   | 85   | 5.46   | 5.54     | 5.50     | 5.60                  | 5.66     | 5.63     | 5.82   | 6.12     | 5.97     |
| 90                       | 4.00   | 3.96     | 3.98     |                       |          |          |        |          |                        | 90   | 3.98   | 4.02     | 4.00     |                       |          |          |        |          |          |
| 95                       | 2.50   | 2.50     | 2.50     |                       |          |          |        |          |                        | 95   | 2.50   | 2.50     | 2.50     |                       |          |          |        |          |          |

  

| DISTRICT OF COLUMBIA (WHITE). |        |          |          |                       |          |          |        |          | NEW JERSEY (WHITE). |      |        |          |          |                       |          |          |        |          |          |
|-------------------------------|--------|----------|----------|-----------------------|----------|----------|--------|----------|---------------------|------|--------|----------|----------|-----------------------|----------|----------|--------|----------|----------|
| AGE.                          | 1900   |          |          | Six years, 1884-1890. |          |          | 1880   |          |                     | AGE. | 1900   |          |          | Six years, 1884-1890. |          |          | 1880   |          |          |
|                               | Males. | Females. | Persons. | Males.                | Females. | Persons. | Males. | Females. | Persons.            |      | Males. | Females. | Persons. | Males.                | Females. | Persons. | Males. | Females. | Persons. |
| 0                             | 41.64  | 45.77    | 43.71    | 38.42                 | 43.23    | 40.83    | 41.06  | 43.67    | 42.37               | 0    | 44.06  | 48.27    | 46.17    | 40.11                 | 43.55    | 41.83    | 45.59  | 48.05    | 46.82    |
| 1                             | 49.30  | 52.89    | 51.10    | 47.48                 | 50.81    | 49.15    | 48.29  | 50.88    | 49.84               | 1    | 52.05  | 54.45    | 52.25    | 48.78                 | 51.08    | 49.91    | 52.65  | 54.23    | 53.44    |
| 2                             | 50.83  | 53.88    | 52.11    | 50.52                 | 55.32    | 52.92    | 50.32  | 53.30    | 51.81               | 2    | 53.63  | 56.07    | 54.85    | 51.66                 | 53.81    | 52.74    | 54.39  | 55.71    | 55.05    |
| 3                             | 50.06  | 53.77    | 51.92    | 50.36                 | 55.11    | 52.74    | 50.63  | 53.79    | 52.21               | 3    | 53.75  | 56.06    | 54.91    | 52.00                 | 54.22    | 53.11    | 54.94  | 56.13    | 55.54    |
| 4                             | 49.90  | 53.68    | 51.79    | 50.04                 | 54.83    | 52.29    | 50.57  | 53.82    | 52.20               | 4    | 53.39  | 55.77    | 54.58    | 52.04                 | 54.25    | 53.15    | 54.94  | 56.03    | 55.49    |
| 5                             | 49.58  | 53.18    | 51.38    | 49.55                 | 54.32    | 51.94    | 50.25  | 53.45    | 51.85               | 5    | 52.86  | 55.28    | 54.07    | 51.79                 | 53.96    | 52.88    | 54.71  | 55.66    | 55.19    |
| 10                            | 46.37  | 49.90    | 48.14    | 46.12                 | 50.91    | 48.52    | 47.05  | 50.37    | 48.71               | 10   | 49.27  | 51.59    | 50.43    | 48.62                 | 50.82    | 49.72    | 51.57  | 52.62    | 52.05    |
| 15                            | 42.22  | 45.82    | 44.02    | 41.82                 | 46.68    | 44.25    | 42.66  | 46.11    | 44.39               | 15   | 45.00  | 47.24    | 46.12    | 44.55                 | 46.79    | 45.67    | 47.36  | 48.40    | 47.88    |
| 20                            | 38.16  | 41.82    | 39.99    | 37.78                 | 42.66    | 40.22    | 38.73  | 42.10    | 40.42               | 20   | 41.04  | 43.12    | 42.08    | 40.72                 | 43.09    | 41.91    | 43.29  | 44.51    | 43.90    |
| 25                            | 34.92  | 38.23    | 36.58    | 34.50                 | 39.22    | 36.86    | 34.92  | 38.53    | 36.78               | 25   | 37.38  | 39.35    | 38.37    | 37.36                 | 39.57    | 38.47    | 39.80  | 41.15    | 40.48    |
| 30                            | 31.66  | 34.70    | 33.18    | 31.37                 | 35.90    | 33.64    | 31.85  | 35.42    | 33.64               | 30   | 33.84  | 35.79    | 34.82    | 34.05                 | 36.18    | 35.12    | 36.26  | 37.76    | 37.01    |
| 35                            | 28.40  | 31.16    | 29.78    | 28.23                 | 32.58    | 30.41    | 28.78  | 32.30    | 30.54               | 35   | 30.29  | 32.22    | 31.26    | 30.73                 | 32.78    | 31.76    | 32.71  | 34.37    | 33.54    |
| 40                            | 24.75  | 27.52    | 26.14    | 24.98                 | 29.21    | 27.10    | 25.98  | 28.75    | 27.37               | 40   | 26.87  | 28.67    | 27.77    | 27.46                 | 29.37    | 28.42    | 29.20  | 30.80    | 30.00    |
| 45                            | 21.09  | 23.88    | 22.49    | 21.73                 | 25.83    | 23.78    | 23.18  | 25.20    | 24.19               | 45   | 23.44  | 25.11    | 24.28    | 24.18                 | 25.95    | 25.07    | 25.70  | 27.24    | 26.47    |
| 50                            | 18.07  | 20.37    | 19.22    | 18.99                 | 22.48    | 20.74    | 20.12  | 22.00    | 21.06               | 50   | 20.18  | 21.64    | 20.91    | 20.97                 | 22.54    | 21.76    | 22.33  | 23.70    | 23.02    |
| 55                            | 15.05  | 16.85    | 15.95    | 16.25                 | 19.13    | 17.69    | 17.06  | 18.79    | 17.93               | 55   | 16.92  | 18.17    | 17.55    | 17.76                 | 19.13    | 18.45    | 18.96  | 20.15    | 19.56    |
| 60                            | 12.43  | 14.07    | 13.28    | 13.63                 | 16.21    | 14.95    | 14.21  | 15.81    | 15.01               | 60   | 14.19  | 15.23    | 14.71    | 14.91                 | 16.09    | 15.50    | 16.10  | 16.89    | 16.50    |
| 65                            | 9.91   | 11.29    | 10.60    | 11.11                 | 13.28    | 12.20    | 11.96  | 12.83    | 12.10               | 65   | 11.46  | 12.28    | 11.87    | 12.05                 | 13.05    | 12.55    | 13.25  | 13.63    | 13.44    |
| 70                            | 8.26   | 9.25     | 8.76     | 9.23                  | 10.83    | 10.03    | 9.57   | 10.38    | 9.98                | 70   | 9.52   | 10.16    | 9.84     | 9.94                  | 10.71    | 10.33    | 10.90  | 11.12    | 11.01    |
| 75                            | 6.61   | 7.20     | 6.91     | 7.35                  | 8.37     | 7.86     | 7.78   | 7.94     | 7.86                | 75   | 7.58   | 8.03     | 7.81     | 7.88                  | 8.37     | 8.10     | 8.54   | 8.60     | 8.57     |
| 80                            | 6.00   | 6.29     | 6.15     | 6.49                  | 7.16     | 6.83     | 6.52   | 6.88     | 6.70                | 80   | 6.47   | 6.83     | 6.65     | 6.71                  | 7.07     | 6.89     | 7.40   | 7.36     | 7.33     |
| 85                            | 5.38   | 5.38     | 5.38     | 5.68                  | 5.95     | 5.79     | 5.26   | 5.81     | 5.54                | 85   | 5.35   | 5.62     | 5.49     | 5.58                  | 5.77     | 5.68     | 6.25   | 6.13     | 6.20     |
| 90                            | 3.94   | 3.94     | 3.94     |                       |          |          |        |          |                     | 90   | 3.93   | 4.06     | 4.00     |                       |          |          |        |          |          |
| 95                            | 2.50   | 2.50     | 2.50     |                       |          |          |        |          |                     | 95   | 2.50   | 2.50     | 2.50     |                       |          |          |        |          |          |

TABLE 10.—EXPECTATION OF LIFE IN CERTAIN CITIES—Continued.

| NEW YORK CITY (MANHATTAN AND BRONX BOROUGHS)<br>(WHITE). |        |               |               |                          |               |               |        |               |               | PHILADELPHIA, PA. (WHITE). |        |               |               |                          |               |               |        |               |               |
|--|--------|---------------|---------------|--------------------------|---------------|---------------|--------|---------------|---------------|----------------------------|--------|---------------|---------------|--------------------------|---------------|---------------|--------|---------------|---------------|
| AGE.   | 1900   |               |               | Six years,<br>1884-1890. |               |               | 1880   |               |               | AGE.                       | 1900   |               |               | Six years,<br>1884-1890. |               |               | 1880   |               |               |
|  | Males. | Fe-<br>males. | Per-<br>sons. | Males.                   | Fe-<br>males. | Per-<br>sons. | Males. | Fe-<br>males. | Per-<br>sons. |                            | Males. | Fe-<br>males. | Per-<br>sons. | Males.                   | Fe-<br>males. | Per-<br>sons. | Males. | Fe-<br>males. | Per-<br>sons. |
|  | 0      | 37.58         | 41.83         | 39.71                    | 28.97         | 32.67         | 30.82  | 33.28         | 36.77         |                            | 35.03  | 0             | 38.25         | 42.93                    | 40.59         | 36.61         | 39.13  | 37.87         | 40.16         |
| 1  | 44.95  | 48.41         | 46.65         | 38.17                    | 41.39         | 39.78         | 42.31  | 45.08         | 43.70         | 1                          | 46.40  | 49.82         | 48.11         | 45.57                    | 47.91         | 46.74         | 48.23  | 50.86         | 49.55         |
| 2  | 47.81  | 51.00         | 49.41         | 43.01                    | 46.15         | 44.58         | 46.75  | 49.14         | 47.95         | 2                          | 48.66  | 51.68         | 50.17         | 48.98                    | 51.71         | 50.32         | 50.20  | 52.91         | 51.56         |
| 3  | 48.27  | 51.51         | 49.89         | 44.03                    | 47.16         | 45.60         | 47.79  | 50.02         | 48.91         | 3                          | 49.12  | 52.06         | 50.59         | 49.33                    | 52.11         | 50.72         | 50.73  | 53.75         | 52.24         |
| 4  | 48.20  | 51.40         | 49.80         | 44.47                    | 47.59         | 46.03         | 48.12  | 50.29         | 49.21         | 4                          | 49.13  | 52.11         | 50.62         | 49.86                    | 52.15         | 50.76         | 50.73  | 53.86         | 52.30         |
| 5  | 47.78  | 51.01         | 49.40         | 44.42                    | 47.59         | 46.01         | 48.05  | 50.24         | 49.15         | 5                          | 48.91  | 51.89         | 50.40         | 49.14                    | 51.96         | 50.55         | 50.39  | 53.04         | 52.02         |
| 10   | 44.14  | 47.30         | 45.72         | 41.47                    | 44.69         | 43.08         | 44.92  | 46.90         | 45.91         | 10                         | 45.71  | 48.73         | 47.22         | 45.98                    | 48.87         | 47.43         | 46.96  | 50.15         | 48.56         |
| 15   | 39.71  | 42.95         | 41.33         | 37.22                    | 40.48         | 38.85         | 40.60  | 42.63         | 41.62         | 15                         | 41.60  | 44.47         | 43.04         | 41.86                    | 44.77         | 43.32         | 42.62  | 45.99         | 44.31         |
| 20   | 35.01  | 38.71         | 37.16         | 33.36                    | 36.54         | 34.95         | 36.62  | 38.65         | 37.64         | 20                         | 37.72  | 40.51         | 39.12         | 38.13                    | 41.10         | 39.62         | 38.70  | 42.04         | 40.37         |
| 25   | 31.90  | 35.00         | 33.45         | 30.09                    | 33.07         | 31.58         | 33.17  | 35.23         | 34.20         | 25                         | 34.22  | 36.85         | 35.54         | 34.82                    | 37.71         | 36.27         | 35.39  | 38.63         | 37.01         |
| 30   | 28.66  | 31.60         | 30.13         | 27.13                    | 29.99         | 28.56         | 29.99  | 32.23         | 31.11         | 30                         | 30.73  | 33.36         | 32.07         | 31.65                    | 34.43         | 33.07         | 32.22  | 35.46         | 33.84         |
| 35   | 25.42  | 28.20         | 26.81         | 24.16                    | 26.90         | 25.53         | 26.81  | 29.23         | 28.02         | 35                         | 27.33  | 29.86         | 28.60         | 28.47                    | 31.24         | 29.86         | 29.06  | 32.29         | 30.68         |
| 40   | 22.48  | 24.89         | 23.69         | 21.57                    | 23.98         | 22.78         | 23.87  | 26.30         | 25.09         | 40                         | 24.06  | 26.48         | 25.27         | 25.40                    | 27.98         | 26.69         | 25.84  | 29.08         | 27.46         |
| 45   | 19.53  | 21.85         | 20.56         | 18.97                    | 21.05         | 20.01         | 20.93  | 23.36         | 22.15         | 45                         | 20.79  | 23.10         | 21.95         | 22.32                    | 24.72         | 23.52         | 22.62  | 25.86         | 24.24         |
| 50   | 16.91  | 18.50         | 17.71         | 16.51                    | 18.24         | 17.38         | 18.15  | 20.33         | 19.24         | 50                         | 17.83  | 19.32         | 18.85         | 19.31                    | 21.44         | 20.38         | 19.65  | 22.58         | 21.12         |
| 55   | 14.28  | 15.42         | 14.85         | 14.04                    | 15.42         | 14.73         | 15.37  | 17.30         | 16.34         | 55                         | 14.96  | 16.53         | 15.75         | 16.29                    | 18.15         | 17.22         | 16.68  | 19.29         | 17.99         |
| 60   | 12.07  | 13.03         | 12.55         | 12.03                    | 13.09         | 12.56         | 13.02  | 14.50         | 13.76         | 60                         | 12.54  | 13.79         | 13.17         | 13.71                    | 15.23         | 14.47         | 14.02  | 16.23         | 15.18         |
| 65   | 9.35   | 10.64         | 10.25         | 10.01                    | 10.75         | 10.33         | 10.68  | 11.70         | 11.19         | 65                         | 10.12  | 11.05         | 10.59         | 11.13                    | 12.30         | 11.72         | 11.36  | 13.17         | 12.27         |
| 70   | 8.44   | 9.09          | 8.77          | 8.52                     | 8.95          | 8.74          | 9.10   | 9.72          | 9.44          | 70                         | 8.53   | 9.22          | 8.88          | 9.26                     | 10.16         | 9.71          | 9.50   | 10.88         | 10.19         |
| 75   | 7.03   | 7.54          | 7.29          | 7.02                     | 7.15          | 7.09          | 7.04   | 7.75          | 7.70          | 75                         | 6.94   | 7.39          | 7.17          | 7.39                     | 8.02          | 7.71          | 7.63   | 8.60          | 8.12          |
| 80   | 6.15   | 6.46          | 6.31          | 6.13                     | 6.27          | 6.20          | 6.66   | 6.64          | 6.65          | 80                         | 6.09   | 6.31          | 6.20          | 6.30                     | 6.74          | 6.57          | 6.46   | 7.33          | 6.90          |
| 85   | 5.27   | 5.38          | 5.33          | 5.23                     | 5.39          | 5.31          | 5.69   | 5.52          | 5.61          | 85                         | 5.23   | 5.22          | 5.23          | 5.33                     | 5.46          | 5.42          | 5.29   | 6.06          | 5.63          |
| 90   | 3.89   | 3.94          | 3.92          | .....                    | .....         | .....         | .....  | .....         | .....         | 90                         | 3.87   | 3.86          | 3.87          | .....                    | .....         | .....         | .....  | .....         | .....         |
| 95   | 2.50   | 2.50          | 2.50          | .....                    | .....         | .....         | .....  | .....         | .....         | 95                         | 2.50   | 2.50          | 2.50          | .....                    | .....         | .....         | .....  | .....         | .....         |

The expectation of life in 1900, as given in the preceding table, was computed according to the method used in the two preceding censuses, for which the figures are also given, which method is described on page cxliii of Volume XII of the Tenth Census Reports.

The figures do not have any actuarial or scientific value as indicating the true expectation of life, but they are of some interest for comparison with each other.