

# UNITED STATES ABRIDGED LIFE TABLES: 1919-1920.

## INTRODUCTION.

### GENERAL STATEMENTS.

1. This third official publication on life tables issued by the Bureau of the Census is called *abridged* life tables because of the abridged process of constructing them and because they show life table values, such as rates of mortality and expectations of life, only at every fifth year of age instead of at each year of age.

Four life table functions are shown: Rate of mortality per thousand, number of survivors to each age out of 100,000 born alive, number of deaths in each age interval out of 100,000 born alive, and complete expectation of life in years. Annual rates of mortality are given for the following ages in years: 0, 1, 2, 7, 12, 17, 22, and so on at 5-year intervals up to 92. These rates of mortality are for the midyear of the quinquennial age groups 5-9, 10-14, 15-19, and so on, and represent roughly the average rate for that age group. From these rates the number of survivors out of 100,000 born alive was determined at the exact ages 1, 2, 7, 12, 17, and so on, at each fifth year of age up to age 92. From the survivors the expectation of life in years was derived for these same ages. Then the number of deaths out of 100,000 born alive was determined for age intervals 0-1, 1-2, 2-7, 7-12, and so on for each quinquennial age group up to age 92-97.

Altogether the life tables relate to 74 per cent of the population of the United States, exclusive of outlying possessions, except Hawaii, as enumerated in the census of 1920. The 1910 life tables relate to about 28 per cent of the total population of the United States, of which not more than 2 per cent are Negroes. Under these circumstances, therefore, life tables for total populations and for white populations do not differ much. But in the various states and cities and other groups of population for which 1919-1920 life tables are constructed the per cent of colored population varies from 0.6 in Wisconsin to 51.4 in South Carolina. No true comparisons could be made between aggregate populations because of this varying per cent of colored population. Accordingly all the abridged life tables, except those for Hawaii, are for white or Negro populations and not for the aggregate. All the tables are also shown by sex.

To render comparison easy the values of each life table function are grouped in tables by sex. Thus all the expectations of life at every fifth year of age for white males in 23 states, 14 cities, and in 3 other large

groups, and also for 4 groups of Negro males, and for the aggregate males and the Japanese males in Hawaii, are shown in one table.

The order or rank of each value of a function at any age or in any age interval is shown by small figures in a narrow column to the right. Thus in Table 3, page 12, in the column for the age 22 years, the figure 1 in the narrow column to the right of 3.93 shows that the lowest rate of mortality at this age was among Wisconsin white males. Also the 28 in the narrow column to the right of 5.17 in the same age column shows that rates of mortality among 27 male populations were lower than that among New Jersey white males at this age.

Abridged life tables for 1919-1920 were constructed for whites and for Negroes separately in the original registration states, which is the largest area upon which United States life tables have been based heretofore. To show the change in the ten-year period, the life table values for the period 1909-1911 are in italics just below the corresponding ones for 1919-1920. The 1919-1920 rates of mortality show that there was marked improvement among white males for each age given, except 17, 27, and 92, and among white females for each age given except 17, 22, 27, and 32. See Tables 3 and 4, pages 12 to 15. The values for Negroes at the bottom of these tables show similar fluctuations at the same ages, and also some at ages 52 to 62, 72, and 82. This lack of improvement in adult years was due to the influenza epidemics of 1919 and 1920. Values taken from the life tables for the Japanese Empire for the period 1908-1913<sup>1</sup> are in italics just below those for the Japanese in Hawaii in 1919-1920. From these values it appears that infant mortality is much lower among the Japanese in Hawaii than in the Japanese Empire. Possibly the desire for American citizenship influences the number of births registered among Japanese in the United States territory and this may be the cause for the differences in infant mortality rates among Japanese in Japan and in the United States. But after age 27 and up to old age mortality rates among Japanese appear to be more favorable in the Empire than in Hawaii. The number of Japanese over 50 years of age in Hawaii is too small to afford reliable life table values.

As the life table functions are shown for each sex separately, Table 11 permits a comparison of the rates of

<sup>1</sup> *Résumé Statistique de L'Empire du Japon*, Table 14, p. 17.

mortality of the two sexes in each area and age group. This table shows the excess of the rate of mortality among males over that among females in each age group in each area. Differences in bold-faced type indicate that the rate of mortality among females is greater than that among males in that age group and area. Thus, at age 27 it will be noted that the rate of mortality among white females exceeds that among white males by 0.89 in the state of Illinois; by 1.62 in Indiana; by 2.25 in Kentucky; by 2.04 in Michigan. It will also be seen that greater mortality among females than among males is more frequent in 1919-20 than in 1909-1911.

#### OUTLINE OF CONTENTS.

2. This report on life tables is divided into three parts, abridged life tables, description of the process used in computing them, and the original statistics on which these life tables are based.

In Part I each of the Tables 3 to 10 shows for one sex all the values for one life table function. Table 11 shows the excess of rates of mortality among males over those among females in the same area and age group. Bold-faced figures in any age group indicate that the rate of mortality among females is greater than that among males. Figures in italics in these tables are used for the values taken from the 1909-1911 life tables for whites and Negroes in the original registration states and for the values taken from the life tables for the Japanese Empire for the period 1908-1913<sup>1</sup> which are given in these tables for the sake of comparison.

Part II includes a full explanation of the method used to compute these 1919-1920 abridged life tables and photographs of the actual computation by this method of an abridged life table for males in the state of New York, 1909-1911. The computation of a life table by the extended method for males in the state of New York, 1909-1911, is shown in Part VII of the United States Life Tables, 1890, 1901, 1910, and 1901-1910, and these computations by the abridged method show not only the differences between the two processes of computation but also the differences between the results obtained by the two methods when applied to the same original data. The photographs are accompanied by a detailed description of the computations shown in them.

In Part III are the three tables of original statistics on which these abridged life tables are based. The first one, Table 16, gives the statistics used which were not compiled in the Bureau of the Census, but were either copied from state reports on vital statistics, or were compiled especially for these life tables through the courtesy of the individual state departments. Discussion of the statistics shown in this table is given at the beginning of Part III, section 44. Table 17 shows the statistics used in obtaining rates of mortality up to 2 years of age. Table 18 shows the

statistics used in obtaining the rates of mortality from age 7 to last age in table.

#### POPULATIONS ON WHICH LIFE TABLES ARE BASED.

3. By means of these abridged life tables it was desired to obtain life table values for all parts of the United States for which reliable death statistics could be obtained, in order to study the varying mortality conditions in the different sections of the country. Accordingly not so much attention was given to the size of the population on which life tables are based as to the reliability of the death statistics available for the calendar years 1919 and 1920, and as to whether any birth statistics were available which could be used to estimate practically the same per cent of the actual number of births in each of these areas from 1916 to 1920. The largest population on which an abridged life table is based is that for aggregate white males, 37,026,026. The smallest populations are those for Hawaii, the Japanese female population in Hawaii being only 46,630. Consequently these last tables are far from smooth, but it is believed that they are reliable up to about 50 years of age. The size of the population and the number of deaths on which each life table is based are shown in Table 18, pages 62 to 71.

Fourteen tables are based on the sum of the populations in a number of states or cities. Six are for whites and eight are for Negroes. The populations on which the life tables for whites are based total 77.09 per cent of the white population of the United States exclusive of outlying possessions, while those on which the life tables for Negroes are based total 46.13 per cent of the Negro population. Four of these tables are for white males and females and for Negro males and females in the original registration states, which include the New England states, New Jersey, New York, Indiana, Michigan, and the District of Columbia. Two life tables for aggregate white males and females include the populations of the original registration states, and California, Illinois, Kansas, Kentucky, Maryland, Minnesota, Missouri, North Carolina, Ohio, Oregon, Pennsylvania, South Carolina, Tennessee, Utah, Virginia, Washington, and Wisconsin. Two life tables are for whites in fourteen large cities: Baltimore, Boston, Buffalo, Chicago, Cleveland, Detroit, Los Angeles, New Orleans, New York, Philadelphia, Pittsburgh, St. Louis, San Francisco, and Washington, D. C. Life tables for Negroes in states with less than 4 per cent Negro population<sup>2</sup> are based on the Negro population in sixteen states: California, Connecticut, Illinois, Indiana, Kansas, Massachusetts, Michigan, Minnesota, New Jersey, New York, Ohio, Oregon, Pennsylvania, Utah, Washington, and Wisconsin. Life tables for Negroes in states with more than 5 per cent Negro population<sup>2</sup> are based on the Negro population in seven states: Kentucky, Mary-

<sup>1</sup> *Résumé Statistique de L'Empire du Japon*, Table 14, p. 17.

<sup>2</sup> No states for which life tables were computed had between 4 and 5 per cent Negro population.

land, Missouri, North Carolina, South Carolina, Tennessee, and Virginia. Two more life tables for Negroes are based on the Negro population in twelve cities: Baltimore, Boston, Buffalo, Chicago, Cleveland, Detroit, New Orleans, New York, Philadelphia, Pittsburgh, St. Louis, and Washington, D. C.

#### MORTALITY OF CHILDREN UNDER 3 YEARS OF AGE.

4. A study of the birth statistics available for these life tables showed that the number of births registered ranged from about 75 per cent to practically 100 per cent of the actual number of births. Consequently, unless corrected, it was impossible to use these birth statistics as a basis for comparing mortality under 3 years of age. The method used to obtain the computed number of births for the United States Life Tables, 1890, 1901, 1910, and 1901-1910 could not be used for the 1919-20 tables, since the deaths during the calendar years 1921 to 1923 were, of course, not available at the time the abridged life tables were prepared. Accordingly a method or plan had to be devised whereby the number of births could be determined from the statistics available at the time of the computations of the tables. Census returns for children under 1 year of age are recognized throughout the civilized world as practically always incomplete. Mr. George King says:

The number of infants alive under one year of age should closely agree with the calculated number derived from the births and deaths, there having been no time for emigration to tell, whereas the number of children alive in each of the succeeding four years of age should progressively be a little less—the difference being an increasing one—than the number calculated from the births and deaths. It is, however, seen that the census returns do not comply with these conditions, and the conclusion seems to be inevitable that a large number of infants under two years of age escaped enumeration at both the censuses of 1901 and 1911, more especially so in 1911, although why that should be it is difficult to understand. Is there any other explanation? This is a matter that is well worthy of investigation before the next census comes to be taken.<sup>1</sup>

It was assumed that the ratio of the actual number of children under 1 year of age to the number obtained from census returns was uniform throughout the United States. To determine approximately the value of this ratio an investigation was made of the children born in Washington, D. C., during the calendar year 1919. The census returns for the District and its death records were searched for the children born there in 1919, and a form letter was sent to the parents of those children whose names did not appear either in the census schedules of January 1, 1920, or on the death records for the District for 1919. Between 500 and 600 answers to these inquiries were received and they were used as a basis for estimating the status on January 1, 1920, of the children whose names were missing from the schedules and about whom it was impossible to obtain definite information. Separate records were kept for white and Negro children, and the per cent of children whose names were missing from the census

schedules, but who were actually living in the District on January 1, 1920, was found to be much greater among Negroes than among whites.

It was then assumed that the per cent of infants whose names were missing from the census schedules for the District was constant throughout the United States, and the per cent determined was used to obtain a close approximation to the actual number of children under 1 year of age in each community on January 1, 1920. Different constants were determined for white and Negro children. The constant per cent of infants whose names were missing was taken as 9 for whites and 25 for Negroes. When a close approximation to the number of children under 1 year of age in a community on January 1, 1920, was obtained, the number of births among whites or among Negroes, which occurred in the community during the calendar year 1919 was computed by the method described in section 109, page 340, of the United States Life Tables, 1890, 1901, 1910, and 1901-1910. Next it was necessary to determine the number of births in 1920 and in 1916, 1917, and 1918, as explained in section 8, page 32. Under present birth registration it may be assumed that the ratio between the number of births registered in 1919 and the actual number of births in that year should be very nearly equivalent to similar ratios for the years immediately preceding and following 1919. Accordingly the ratio between the computed number of births, based on corrected census returns for children under 1 year of age, and the number of births registered in 1919 in each area was determined and then this ratio was applied to the number of registered births by sex in each year from 1916 to 1920, inclusive, to determine a close approximation to the actual number of births in that community in each of those years.

Owing to the fluctuations in the birth and death rates since 1916 the populations by single years of age under 3 on January 1, 1919, and January 1, 1921, could not be estimated accurately by the usual methods. The 1920 Birth Statistics for the Birth Registration Area of the United States, page 8, shows the following birth rates from 1916 through 1920 in this area for each year. In 1920 the birth registration area included nearly 60 per cent of the population in the United States.

TABLE I.—BIRTH RATES IN BIRTH REGISTRATION AREA, 1916 TO 1920.

| YEAR.     | Total. | White. | Colored. |
|-----------|--------|--------|----------|
| 1920..... | 23.7   | 23.5   | 27.0     |
| 1919..... | 22.3   | 22.1   | 25.2     |
| 1918..... | 24.6   | 24.6   | 24.5     |
| 1917..... | 24.7   | 24.7   | 24.4     |
| 1916..... | 25.0   | 25.1   | 20.4     |

From this table it will be seen that the number of white children at each age under 3 years on January 1, 1919, was probably greater than on January 1, 1920, and the number of children between 1 and 3 years of age

<sup>1</sup> Supplement to the Seventy-fifth Annual Report of the Registrar-General, 1912. England and Wales. Part I. Life Tables. Section 42, page 13.

on January 1, 1920, was probably greater than on January 1, 1921. The number of children at each year of age under 3 years according to the census returns of April 15, 1910, was less than the number at the corresponding age according to the census returns of January 1, 1920. Any form of interpolation between census returns would show a gradual increase in the number of children under 3 instead of the actual fluctuation that occurred, and therefore no interpolation between census returns could be used. The method adopted for determining the populations under 3 on January 1, 1919, and January 1, 1921, is a modification of the method used for determining the number of births for the United States Life Tables of 1890, 1901, 1910, and 1901-1910, section 109, page 340.

METHOD USED IN CONSTRUCTING ABRIDGED LIFE TABLES.

5. In deciding the method to be used for the construction of abridged life tables for the United States various methods were studied closely, and the one set forth by Mr. George King on pages 26 to 33 of the Supplement to the Seventy-fifth Annual Report of the Registrar-General of Births, Deaths and Marriages in England and Wales, Part I, Life Tables, was adopted with some modifications.

The process was shortened and methods for joining life table values at ages under 3 years with those at ages 12 years and over were devised so that expectations of life at birth and at other young ages could be obtained. The method used is explained fully in sections 9 to 13 of Part II, pages 33 to 35.

TABLE 2.

LIFE TABLE FUNCTIONS FOR  
BY THE EXTENDED AND BY THE ABRIDGED METHODS

| EXACT AGE IN YEARS. | 1000 <sub>q<sub>x</sub></sub>                   |  |  |  |  |  |  |  |
|---------------------|---|--|--|--|--|--|--|--|
|                     | ANNUAL RATE OF MORTALITY PER THOUSAND AT AGE x. |  |  |  |  |  |  |  |
|                     | By abridged method applied to 4-8 group.        | In column 2 less corresponding rate in column 4. | By extended method applied to 4-8 group. | In column 6 less corresponding rate in column 4. | By abridged method applied to 5-9 group. | In column 6 less corresponding rate in column 8. | By extended method applied to 5-9 group. | In column 8 less corresponding rate in column 4. |
| 1                   | 2   | 3  | 4  | 5  | 6  | 7  | 8  | 9  |
| 0.....              | 127.49  | + .36  | 127.13                                   | + .36  | 127.49                                   |  |  |  |
| 1.....              | 34.25   | + .61  | 33.64                                    | + .61  | 34.25                                    |  |  |  |
| 2.....              |   |  | 15.56                                    | + .65  | 16.21                                    |  |  |  |
| 6.....              | 4.53  | + .08  | 4.45                                     |  |  |  |  |  |
| 7.....              |   |  | 3.70                                     | + .05  | 3.75                                     |  |  |  |
| 11.....             | 2.30  | .00  | 2.30                                     |  |  |  |  |  |
| 12.....             |   |  | 2.32                                     | - .04  | 2.28                                     |  |  |  |
| 16.....             | 3.37  | .00  | 3.37                                     |  |  |  |  |  |
| 17.....             |   |  | 3.77                                     | + .11  | 3.88                                     | - .05  | 3.93                                     | + .16  |
| 21.....             | 5.34  | - .08  | 5.42                                     |  |  |  |  |  |
| 22.....             |   |  | 5.63                                     | - .16  | 5.47                                     | - .04  | 5.51                                     | - .12  |
| 26.....             | 6.27  | + .04  | 6.23                                     |  |  |  |  |  |
| 27.....             |   |  | 6.48                                     | + .04  | 6.52                                     | + .04  | 6.48                                     | .00  |
| 31.....             | 7.98  | + .03  | 7.95                                     |  |  |  |  |  |
| 32.....             |   |  | 8.47                                     | - .01  | 8.46                                     | + .03  | 8.43                                     | - .04  |
| 36.....             | 10.67   | - .05  | 10.72                                    |  |  |  |  |  |
| 37.....             |   |  | 11.18                                    | .00  | 11.18                                    | - .07  | 11.25                                    | + .07  |
| 41.....             | 12.98   | + .01  | 12.97                                    |  |  |  |  |  |
| 42.....             |   |  | 13.49                                    | - .15  | 13.34                                    | + .06  | 13.28                                    | - .21  |
| 46.....             | 15.98   | - .01  | 15.99                                    |  |  |  |  |  |
| 47.....             |   |  | 16.70                                    | + .04  | 16.74                                    | - .04  | 16.78                                    | + .08  |
| 51.....             | 19.90   | + .08  | 19.82                                    |  |  |  |  |  |
| 52.....             |   |  | 20.90                                    | - .01  | 20.89                                    | + .07  | 20.82                                    | - .08  |
| 56.....             | 27.28   | - .12  | 27.38                                    |  |  |  |  |  |
| 57.....             |   |  | 29.35                                    | - .35  | 29.00                                    | - .13  | 29.13                                    | - .22  |
| 61.....             | 38.08   | - .01  | 38.09                                    |  |  |  |  |  |
| 62.....             |   |  | 40.54                                    | + .02  | 40.56                                    | + .03  | 40.53                                    | - .01  |
| 66.....             | 51.61   | + .16  | 51.45                                    |  |  |  |  |  |
| 67.....             |   |  | 54.87                                    | - .19  | 54.68                                    | + .15  | 54.53                                    | - .34  |
| 71.....             | 72.05   | - .02  | 72.07                                    |  |  |  |  |  |
| 72.....             |   |  | 77.26                                    | - .61  | 76.65                                    | .00  | 76.65                                    | - .61  |
| 76.....             | 103.11  | - .44  | 103.55                                   |  |  |  |  |  |
| 77.....             |   |  | 111.00                                   | + .88  | 111.88                                   | - .84  | 112.72                                   | +1.72  |
| 81.....             | 148.20  | - .96  | 149.16                                   |  |  |  |  |  |
| 82.....             |   |  | 160.89                                   | -3.09  | 157.80                                   | - .04  | 157.84                                   | -3.05  |
| 86.....             | 211.79  | +1.36  | 210.43                                   |  |  |  |  |  |
| 87.....             |   |  | 221.70                                   | +3.50  | 225.20                                   |  |  |  |
| 91.....             | 263.46  | + .24  | 263.22                                   |  |  |  |  |  |
| 92.....             |   |  | 274.62                                   | +3.83  | 278.45                                   |  |  |  |

AGE GROUP OF ORIGINAL STATISTICS.

6. At the time it was decided to begin the computation of the abridged life tables population statistics were not available by each single year of age, but only by single years under 5 and the quinquennial age group 5-9, 10-14, and so on up to age 100 years and over. Although it was desired to use the group 4-8, 9-13, and so on up to end of life, to wait for a compilation of populations in the quinquennial age group 4-8, 9-13, and so on, would have delayed the computation of these tables too long.

To show the variations produced in life table functions by applying the abridged process to the original statistics in different age groups, the abridged process was applied to the original statistics for the 1909-1911 New York male life table in the age group 4-8,

9-13, and so on as well as in the age group 5-9,10-14, and so on. The results are shown in Table 2.

To obtain the probability of living from ages 1 to 6 years for column 10 from rates of mortality at these ages, equation (iia), page 35, with the coefficient of  $\Delta^3u_0$  changed from +1.0 to +1.2, was used. The coefficient +1.2 was derived in the same way as the coefficient +1.0. See section 12, page 34. Where the original statistics for both the extended and the abridged methods are based on the same age group, there is very close agreement. So any difference between several life tables for New York, males, 1909-1911, seems to be almost entirely due to the variation in the age groups of the original statistics from which they were derived.

MALES IN THE STATE OF NEW YORK: 1909-1911.

TABLE 2.

WITH ORIGINAL STATISTICS IN GROUPS 4-8 AND 5-9.

| $l_x$ NUMBER OF SURVIVORS AT AGE $x$ OUT OF 100,000 BORN ALIVE |  |  |  |  | $e_x$ COMPLETE EXPECTATION OF LIFE IN YEARS AT AGE $x$ . |   |   |   |   | EXACT AGE IN YEARS. |
|--|--|--|--|--|--|---|---|---|---|---------------------|
| Based on rates in column 2 by abridged method.                 | In column 10 less corresponding number in column 12. | Based on rates in column 4 by extended method. | In column 14 less corresponding number in column 12. | Based on rates in column 6 by abridged method. | Based on $l_x$ in column 10 by abridged method.          | In column 15 less corresponding $e_x$ in column 17. | Based on $l_x$ in column 12 by extended method. | In column 19 less corresponding $e_x$ in column 17. | Based on $l_x$ in column 14 by abridged method. |                     |
| 10   | 11   | 12   | 13   | 14   | 15   | 16  | 17  | 18  | 19  | 20                  |
| 100,000  | 0  | 100,000  | 0  | 100,000  | 47.87  | -.02  | 47.89   | -.08  | 47.81   | 0                   |
| 87,251   | -36  | 87,287   | -36  | 87,251   | 53.79  | -.03  | 53.82   | -.10  | 53.72   | 1                   |
|  |  | 84,350   | -87  | 84,263   |  |   | 54.68   | -.07  | 54.61   | 2                   |
| 81,135   | -151   | 81,286   |  | 80,629   | 52.69  | .00   | 52.69   |   | 51.97   | 6                   |
|  |  | 80,924   | -295   |  |  |   | 51.92   | +0.05   |   | 7                   |
| 79,812   | -152   | 79,964   |  | 79,510   | 48.53  | +0.01   | 48.52   |   | 47.68   | 11                  |
|  |  | 79,780   | -270   |  |  |   | 47.63   | +0.05   |   | 12                  |
| 78,796   | -154   | 78,950   |  | 78,405   | 44.12  | +0.01   | 44.11   |   | 43.31   | 16                  |
|  |  | 78,684   | -279   |  |  |   | 43.26   | +0.05   |   | 17                  |
| 77,170   | -134   | 77,304   |  | 76,641   | 40.00  | +0.01   | 39.99   |   | 39.25   | 21                  |
|  |  | 76,885   | -244   |  |  |   | 39.21   | +0.04   |   | 22                  |
| 74,988   | -119   | 75,107   |  | 74,416   | 36.09  | .00   | 36.09   |   | 35.34   | 26                  |
|  |  | 74,639   | -223   |  |  |   | 35.31   | +0.03   |   | 27                  |
| 72,444   | -132   | 72,576   |  | 71,766   | 32.26  | .00   | 32.26   |   | 31.55   | 31                  |
|  |  | 71,999   | -233   |  |  |   | 31.51   | +0.04   |   | 32                  |
| 69,232   | -119   | 69,351   |  | 68,408   | 28.64  | .00   | 28.64   |   | 27.98   | 36                  |
|  |  | 68,607   | -109   |  |  |   | 27.94   | +0.04   |   | 37                  |
| 65,314   | -106   | 65,420   |  | 64,396   | 25.21  | +0.01   | 25.20   |   | 24.56   | 41                  |
|  |  | 64,572   | -176   |  |  |   | 24.53   | +0.03   |   | 42                  |
| 60,833   | -104   | 60,938   |  | 59,824   | 21.87  | .00   | 21.87   |   | 21.24   | 46                  |
|  |  | 59,964   | -140   |  |  |   | 21.22   | +0.02   |   | 47                  |
| 55,781   | -73  | 55,804   |  | 54,572   | 18.64  | -.01  | 18.65   |   | 18.04   | 51                  |
|  |  | 54,698   | -126   |  |  |   | 18.01   | +0.03   |   | 52                  |
| 49,720   | -102   | 49,822   |  | 48,370   | 15.58  | +0.01   | 15.57   |   | 15.02   | 56                  |
|  |  | 48,458   | -88  |  |  |   | 15.00   | +0.02   |   | 57                  |
| 42,400   | -67  | 42,467   |  | 40,815   | 12.83  | .00   | 12.83   |   | 12.33   | 61                  |
|  |  | 40,849   | -34  |  |  |   | 12.31   | +0.02   |   | 62                  |
| 34,015   | -38  | 34,053   |  | 32,288   | 10.37  | .00   | 10.37   |   | 9.91  | 66                  |
|  |  | 32,301   | -13  |  |  |   | 9.90  | +0.01   |   | 67                  |
| 25,085   | -33  | 25,118   |  | 23,367   | 8.17   | +0.01   | 8.16  |   | 7.74  | 71                  |
|  |  | 23,307   | +60  |  |  |   | 7.76  | -.02  |   | 72                  |
| 16,220   | -19  | 16,239   |  | 14,595   | 6.28   | +0.01   | 6.27  |   | 5.92  | 76                  |
|  |  | 14,557   | +33  |  |  |   | 5.94  | -.02  |   | 77                  |
| 8,565  | -10  | 8,575  |  | 7,317  | 4.74   | +0.01   | 4.73  |   | 4.43  | 81                  |
|  |  | 7,296  | +21  |  |  |   | 4.47  | -.04  |   | 82                  |
| 3,299  | -4   | 3,303  |  | 2,674  | 3.64   | -.01  | 3.65  |   | 3.17  | 86                  |
|  |  | 2,608  | +66  |  |  |   | 3.48  | -.31  |   | 87                  |
| 878  | -4   | 882  |  | 576  | 2.84   | -.07  | 2.91  |   | 2.03  | 91                  |
|  |  | 650  | -74  |  |  |   | 2.78  | -.75  |   | 92                  |