

## United States Life Tables, 2006

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### Abstract

**Objectives**—This report presents complete period life tables by age, race, and sex for the United States based on age-specific death rates in 2006.

**Methods**—Data used to prepare the 2006 life tables are 2006 final mortality statistics, July 1, 2006 population estimates based on the 2000 decennial census, and 2006 Medicare data for ages 66–100. The 2006 life tables were estimated using a recently revised methodology first applied to the final annual U.S. life tables series with the 2005 edition (1). For comparability, all life tables for the years 2000–2004 were reestimated using the revised methodology and were published in an appendix of the United States Life Tables, 2005 report (1). These revised tables replace all previously published life tables for years 2000–2004.

**Results**—In 2006, the overall expectation of life at birth was 77.7 years, representing an increase of 0.3 years from life expectancy in 2005. From 2005 to 2006, life expectancy at birth increased for all groups considered. It increased for males (from 74.9 to 75.1) and females (from 79.9 to 80.2), the white (from 77.9 to 78.2) and black populations (from 72.8 to 73.2), black males (from 69.3 to 69.7) and females (from 76.1 to 76.5), and white males (from 75.4 to 75.7) and females (from 80.4 to 80.6).

**Keywords:** life expectancy • survival • death rates • race

### Introduction

There are two types of life tables—the cohort (or generation) and the period (or current). The cohort life table presents the mortality experience of a particular birth cohort, all persons born in the year 1900, for example, from the moment of birth through consecutive ages in successive calendar years. Based on age-specific death rates observed through consecutive calendar years, the cohort life table reflects the mortality experience of an actual cohort from birth until no lives remain in the group. To prepare a single complete cohort life table requires data over many years. It is usually not feasible to construct cohort life tables entirely on the basis of

observed data for real cohorts due to data unavailability or incompleteness (2). For example, a life table representation of the mortality experience of a cohort of persons born in 1970 would require the use of data projection techniques to estimate deaths into the future (3,4).

Unlike the cohort life table, the period life table does not represent the mortality experience of an actual birth cohort. Rather, the period life table presents what would happen to a hypothetical (or synthetic) cohort if it experienced throughout its entire life the mortality conditions of a particular time period. Thus, for example, a period life table for 2006 assumes a hypothetical cohort subject throughout its lifetime to the age-specific death rates prevailing for the actual population in 2006. The period life table may thus be characterized as rendering a “snapshot” of current mortality experience, and shows the long-range implications of a set of age-specific death rates that prevailed in a given year. In this report the term “life table” refers only to the period life table and not to the cohort life table.

### Data and Methods

The data used to prepare the U.S. life tables for 2006 are final numbers of deaths for the year 2006, postcensal population estimates for the year 2006, and age-specific death and population counts for Medicare beneficiaries aged 66–100 for the year 2006 from the Centers for Medicare & Medicaid Services.

The populations used to estimate the life tables shown in this report were produced under a collaborative agreement with the U.S. Census Bureau and are consistent with the postcensal estimates of the 2000 census. Reflecting the guidelines issued in 1997 by the Office of Management and Budget (OMB), the 2000 census included an option for individuals to report more than one race as appropriate for themselves and household members (5). The 1997 OMB guidelines also provided for the reporting of Asian persons separately from Native Hawaiian or other Pacific Islander persons. Under the prior OMB standards (issued in 1977), data for Asian or Pacific Islander persons were collected as a single group (6). Beginning with deaths occurring in 2003, some states implemented multiple-race categories on the death certificate. Approximately one-half of the states continue to collect only one race for the decedent in the same categories as



specified in the 1977 OMB guidelines (death certificate data do not report Asian persons separately from Native Hawaiian or other Pacific Islander persons). Death certificate data by race for these states (the numerators for death rates) are thus currently incompatible with the population data collected in the 2000 census (the denominators for the rates). To produce death rates for 2006 it was necessary to “bridge” the reported population data for multiple-race persons back to single-race categories. In addition, the 2000 census counts were modified to be consistent with the 1977 OMB race categories, that is, to report the data for Asian persons and Native Hawaiian or other Pacific Islander persons as a combined category, Asian or Pacific Islander, and to reflect age as of the census reference date (7). The procedures used to produce the “bridged” populations are described in a separate publication (8). Multiple-race data for those states that implemented the 1997 OMB guidelines are bridged back to single-race categories. Once all states are collecting data on race according to the 1997 OMB guidelines, it is expected that use of the bridged populations will be discontinued.

Readers should keep in mind that the population data used to compile death rates by race are based on special estimation procedures. They are not true counts. This is the case even for the 2000 populations that are based on the 2000 census. The estimation procedures used to develop these populations contain some errors (8). Over the next several years, additional information will be incorporated in the estimation procedures, possibly resulting in further revisions of the population estimates (see the “Technical Notes” section).

Data from the Medicare program are used to supplement vital statistics and census data for ages 66 years and over. Death rates based on Medicare data for the oldest ages are considered to be more accurate than death rates based solely on vital and census data because beneficiaries must prove their date of birth in order to qualify for benefits while there is no such requirement in the census form question about a respondent's age. The prevalence of age misreporting

at the oldest ages in census data has been found to be significant enough to lead to underestimated death rates at the oldest ages (see the “Technical Notes” section).

Life tables can be classified in two ways according to the length of the age interval in which data are presented. A complete life table contains data for every year of age. An abridged life table typically contains data by 5- or 10-year age intervals. A complete life table, of course, can be easily aggregated into 5- or 10-year age groups (see the “Technical Notes” section for instructions on how to do this). Other than the decennial life tables, U.S. life tables based on data prior to 1997 are abridged life tables constructed by reference to a standard table (9). The 2006 U.S. life tables are complete life tables calculated using a revised method that blends vital statistics and Medicare data at ages 66–100 (1). See the “Technical Notes” section for more information on the method used to construct the life tables in this report.

**Expectation of life**—The most frequently used life table statistic is life expectancy ( $e_x$ ), which is the average number of years of life remaining for persons who have attained a given age ( $x$ ). Life expectancy and other life table values for each age in 2006 are shown for the total population and by race and sex in [Tables 1–9](#). Life expectancy is summarized by age, race, and sex in [Table A](#).

Life expectancy at birth ( $e_0$ ) for 2006 for the total population was 77.7 years. This represents the average number of years that the members of the hypothetical life table cohort may expect to live at the time of birth ([Table A](#)).

**Survivors to specified ages**—Another way of assessing the longevity of the synthetic life table cohort is by determining the proportion who survive to specified ages. The  $l_x$  column of the life table provides the data for computing the proportion. [Table B](#) summarizes the number of survivors by age, race, and sex. To illustrate, 54,201 persons out of the original 2006 synthetic life table cohort of 100,000 (or 54.2 percent) were alive at exact age 80. In other words, the probability that a person will survive from birth to age 80, given 2006 age-specific mortality, is

**Table A. Expectation of life, by age, race, and sex: United States, 2006**

| Age           | All races |      |        | White |      |        | Black |      |        |
|---------------|-----------|------|--------|-------|------|--------|-------|------|--------|
|               | Total     | Male | Female | Total | Male | Female | Total | Male | Female |
| 0 . . . . .   | 77.7      | 75.1 | 80.2   | 78.2  | 75.7 | 80.6   | 73.2  | 69.7 | 76.5   |
| 1 . . . . .   | 77.2      | 74.7 | 79.7   | 77.6  | 75.1 | 80.0   | 73.2  | 69.7 | 76.5   |
| 5 . . . . .   | 73.3      | 70.8 | 75.8   | 73.7  | 71.2 | 76.1   | 69.4  | 65.8 | 72.6   |
| 10 . . . . .  | 68.4      | 65.8 | 70.8   | 68.7  | 66.3 | 71.1   | 64.4  | 60.9 | 67.7   |
| 15 . . . . .  | 63.4      | 60.9 | 65.9   | 63.8  | 61.3 | 66.1   | 59.5  | 56.0 | 62.7   |
| 20 . . . . .  | 58.6      | 56.1 | 61.0   | 59.0  | 56.6 | 61.3   | 54.7  | 51.3 | 57.8   |
| 25 . . . . .  | 53.9      | 51.5 | 56.1   | 54.2  | 51.9 | 56.4   | 50.1  | 46.8 | 53.0   |
| 30 . . . . .  | 49.2      | 46.9 | 51.3   | 49.5  | 47.3 | 51.5   | 45.5  | 42.4 | 48.2   |
| 35 . . . . .  | 44.4      | 42.2 | 46.4   | 44.7  | 42.6 | 46.7   | 40.9  | 37.9 | 43.5   |
| 40 . . . . .  | 39.7      | 37.6 | 41.7   | 40.0  | 37.9 | 41.9   | 36.4  | 33.5 | 38.9   |
| 45 . . . . .  | 35.2      | 33.1 | 37.0   | 35.4  | 33.4 | 37.2   | 32.0  | 29.2 | 34.5   |
| 50 . . . . .  | 30.7      | 28.8 | 32.5   | 30.9  | 29.0 | 32.6   | 27.9  | 25.2 | 30.2   |
| 55 . . . . .  | 26.5      | 24.7 | 28.0   | 26.6  | 24.9 | 28.2   | 24.1  | 21.6 | 26.1   |
| 60 . . . . .  | 22.4      | 20.7 | 23.8   | 22.5  | 20.9 | 23.8   | 20.4  | 18.2 | 22.2   |
| 65 . . . . .  | 18.5      | 17.0 | 19.7   | 18.6  | 17.1 | 19.8   | 17.1  | 15.1 | 18.6   |
| 70 . . . . .  | 14.9      | 13.6 | 15.9   | 14.9  | 13.6 | 15.9   | 13.9  | 12.3 | 15.1   |
| 75 . . . . .  | 11.6      | 10.4 | 12.3   | 11.5  | 10.5 | 12.3   | 11.1  | 9.8  | 12.0   |
| 80 . . . . .  | 8.7       | 7.8  | 9.3    | 8.7   | 7.8  | 9.3    | 8.7   | 7.7  | 9.3    |
| 85 . . . . .  | 6.4       | 5.7  | 6.8    | 6.3   | 5.7  | 6.7    | 6.7   | 5.9  | 7.1    |
| 90 . . . . .  | 4.6       | 4.1  | 4.8    | 4.5   | 4.0  | 4.7    | 5.1   | 4.5  | 5.3    |
| 95 . . . . .  | 3.2       | 2.9  | 3.3    | 3.2   | 2.8  | 3.3    | 3.8   | 3.5  | 3.9    |
| 100 . . . . . | 2.3       | 2.0  | 2.3    | 2.2   | 2.0  | 2.2    | 2.8   | 2.6  | 2.8    |

**Table B. Number of survivors by age, out of 100,000 born alive, by race and sex: United States, 2006**

| Age       | All races |         |         | White   |         |         | Black   |         |         |
|-----------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|
|           | Total     | Male    | Female  | Total   | Male    | Female  | Total   | Male    | Female  |
| 0. ....   | 100,000   | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 |
| 1. ....   | 99,329    | 99,266  | 99,395  | 99,442  | 99,388  | 99,499  | 98,663  | 98,552  | 98,777  |
| 5. ....   | 99,216    | 99,144  | 99,291  | 99,341  | 99,279  | 99,406  | 98,492  | 98,367  | 98,622  |
| 10. ....  | 99,147    | 99,068  | 99,229  | 99,277  | 99,208  | 99,349  | 98,394  | 98,254  | 98,539  |
| 15. ....  | 99,065    | 98,972  | 99,164  | 99,200  | 99,117  | 99,288  | 98,285  | 98,125  | 98,451  |
| 20. ....  | 98,747    | 98,524  | 98,982  | 98,898  | 98,702  | 99,105  | 97,868  | 97,484  | 98,266  |
| 25. ....  | 98,253    | 97,797  | 98,739  | 98,430  | 98,017  | 98,874  | 97,174  | 96,435  | 97,940  |
| 30. ....  | 97,759    | 97,099  | 98,461  | 97,970  | 97,370  | 98,616  | 96,380  | 95,274  | 97,500  |
| 35. ....  | 97,213    | 96,371  | 98,105  | 97,466  | 96,697  | 98,292  | 95,452  | 94,001  | 96,892  |
| 40. ....  | 96,495    | 95,466  | 97,579  | 96,799  | 95,851  | 97,813  | 94,256  | 92,489  | 95,987  |
| 45. ....  | 95,397    | 94,112  | 96,740  | 95,771  | 94,569  | 97,048  | 92,515  | 90,398  | 94,564  |
| 50. ....  | 93,750    | 92,082  | 95,478  | 94,231  | 92,655  | 95,893  | 89,877  | 87,206  | 92,430  |
| 55. ....  | 91,352    | 89,083  | 93,681  | 91,992  | 89,850  | 94,231  | 85,930  | 82,211  | 89,426  |
| 60. ....  | 88,057    | 85,054  | 91,119  | 88,870  | 86,041  | 91,806  | 80,756  | 75,746  | 85,423  |
| 65. ....  | 83,251    | 79,346  | 87,200  | 84,216  | 80,526  | 88,012  | 73,917  | 67,414  | 79,910  |
| 70. ....  | 76,661    | 71,652  | 81,662  | 77,739  | 72,970  | 82,584  | 65,507  | 57,534  | 72,760  |
| 75. ....  | 67,331    | 61,057  | 73,449  | 68,440  | 62,425  | 74,416  | 55,000  | 45,743  | 63,292  |
| 80. ....  | 54,201    | 46,859  | 61,175  | 55,215  | 48,070  | 62,094  | 42,229  | 32,641  | 50,822  |
| 85. ....  | 37,805    | 30,371  | 44,685  | 38,526  | 31,170  | 45,373  | 28,469  | 20,043  | 36,141  |
| 90. ....  | 20,898    | 15,034  | 26,183  | 21,196  | 15,318  | 26,479  | 15,864  | 9,952   | 21,357  |
| 95. ....  | 7,991     | 4,895   | 10,685  | 7,979   | 4,873   | 10,656  | 6,716   | 3,675   | 9,558   |
| 100. .... | 1,737     | 850     | 2,460   | 1,672   | 804     | 2,373   | 1,928   | 905     | 2,845   |

54 percent. Probabilities of survival can be calculated at any age by simply dividing the number of survivors at the terminal age by the number at the beginning age. For example, to calculate the probability of surviving from age 20 to age 85, one would divide the number of survivors at age 85 (37,805) by the number of survivors at age 20 (98,747), which results in a 38.3 percent probability of survival.

## Explanation of the columns of the life table

**Column 1—Age ( $x$  to  $x + 1$ )**—Shows the age interval between the two exact ages indicated. For instance, “20–21” means the 1-year interval between the 20th and 21st birthdays.

**Column 2—Probability of dying ( $q_x$ )**—Shows the probability of dying between ages  $x$  to  $x + 1$ . For example, for males in the age interval 20–21 years, the probability of dying is 0.001329 (Table 2). The “probability of dying” column forms the basis of the life table; all subsequent columns are derived from it.

**Column 3—Number surviving ( $l_x$ )**—Shows the number of persons from the original synthetic cohort of 100,000 live births, who survive to the beginning of each age interval. The  $l_x$  values are computed from the  $q_x$  values, which are successively applied to the remainder of the original 100,000 persons still alive at the beginning of each age interval. Thus, out of 100,000 female babies born alive, 99,395 will complete the first year of life and enter the second; 99,229 will reach age 10; 98,982 will reach age 20; and 44,685 will live to age 85 (Table 3).

**Column 4—Number dying ( $d_x$ )**—Shows the number dying in each successive age interval out of the original 100,000 live births. For example, out of 100,000 males born alive, 734 will die in the first year of life; 131 between ages 20 and 21; and 850 will die after reaching age 100 (Table 2). Each figure in column 4 is the difference between two successive figures in column 3.

**Column 5—Person-years lived ( $L_x$ )**—Shows the number of person-years lived by the synthetic life table cohort within an age interval  $x$  to  $x + 1$ . Each figure in column 5 represents the total time (in years) lived between two indicated birthdays by all those reaching

the earlier birthday. Thus, the figure 98,459 for males in the age interval 20–21 is the total number of years lived between the 20th and 21st birthdays by the 98,524 (column 3) males who reached their 20th birthday out of 100,000 males born alive (Table 2).

**Column 6—Total number of person-years lived ( $T_x$ )**—Shows the total number of person-years that would be lived after the beginning of the age interval  $x$  to  $x + 1$  by the synthetic life table cohort. For example, the figure 5,532,004 is the total number of years lived after attaining age 20 by the 98,524 males reaching that age (Table 2).

**Column 7—Expectation of life ( $e_x$ )**—Shows, at any given age, the average number of years remaining to be lived by those surviving to that age on the basis of a given set of age-specific rates of dying. It is derived by dividing the total person-years that would be lived above age  $x$  by the number of persons who survived to that age interval ( $T_x / l_x$ ). Thus, the average remaining lifetime for males who reach age 20 is 56.1 years (5,532,004 divided by 98,524) (Table 2).

## Results

### Life expectancy in the United States

Tables 1–9 show complete life tables by race (white and black) and sex for 2006. Tables A and B summarize life expectancy and survival by age, race, and sex. Life expectancy at birth for 2006 represents the average number of years that a group of infants would live if the infants were to experience throughout life the age-specific death rates prevailing in 2006. In 2006, life expectancy at birth was 77.7 years, increasing by 0.3 years from 77.4 years in 2005. This increase is typical of the average annual changes that have occurred during the last 30 years. Throughout the past century, the trend in U.S. life expectancy was one of gradual improvement and this trend has continued into the new century (10).

Changes in mortality levels by age and cause of death have an important effect on changes in life expectancy. Life expectancy at birth

increased from 2005 to 2006, to 75.1 for males and 80.2 for females. Increases in life expectancy for both males and females were a function of decreases in mortality from heart disease, cancer, chronic lower respiratory diseases, and stroke. The increase in life expectancy for the entire population from 2005 to 2006 could have been greater if it was not for the increase in mortality from unintentional injuries, viral hepatitis, homicide, and kidney disease (11).

The difference in life expectancy between the sexes was 5.1 years in 2006, increasing from 5.0 in 2005. From 1900 to 1975, the difference in life expectancy between the sexes increased from 2.0 years to 7.8 years. The increasing gap during these years is attributed to increases in male mortality due to ischemic heart disease and lung cancer, both of which increased largely as the result of men's early and widespread adoption of cigarette smoking (12,13). Between 1979 and 2004, the difference in life expectancy between the sexes narrowed from 7.8 years to 5.0 years and then increased slightly to 5.1 from 2005 to 2006. The general decline in the difference between males and females since 1979 reflects proportionately greater increases in lung cancer mortality for women than for men and proportionately larger decreases in heart disease mortality among men (12,13).

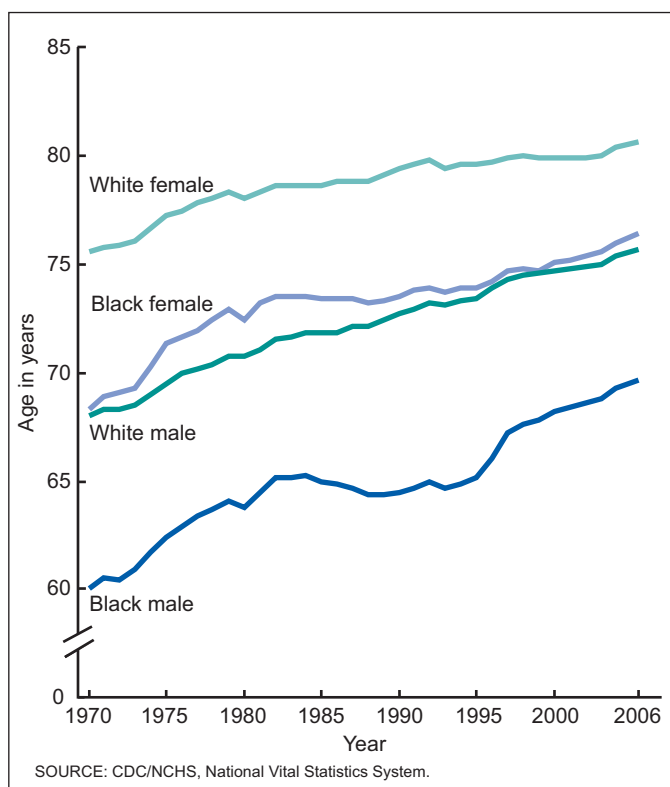
From 2005 to 2006, life expectancy increased by 0.4 years to 73.2 years for the black population, and by 0.3 years to 78.2 years for the white population. The difference in life expectancy between the white and black populations was 5.0 years in 2006, a historical low. The difference in life expectancy between the black and white populations narrowed from 14.6 years in 1900 to 5.7 years in 1982, but increased to 7.1 years in 1993 before beginning to decline again in 1994 (7.0 years). The increase in the gap from 1983 to 1993 was largely the result of increases in mortality among the black male population due to HIV infection and homicide (12,13).

Among the four groups shown in [Figure 1](#), white females continued to have the highest life expectancy at birth (80.6 years), followed by black females (76.5 years), white males (75.7 years), and black males (69.7 years). From 2005 to 2006, life expectancy increased 0.4 years for black females (from 76.1 to 76.5) as well as for black males (from 69.3 to 69.7). Black males experienced an unprecedented decline in life expectancy every year for the period 1984–1989 (14), but annual increases in the years 1990–1992, 1994–2004, and 2005–2006. From 2005 to 2006, life expectancy increased by 0.3 years for white males (from 75.4 to 75.7) and by 0.2 years for white females (from 80.4 to 80.6). Overall, gains in life expectancy between 1980 and 2006 were 5.9 years for black males, 5.0 years for white males, 4.0 years for black females, and 2.5 years for white females ([Table 12](#)).

The 2006 life table may be used to compare life expectancy at any age from birth onward. On the basis of mortality experienced in 2006, a person aged 65 could expect to live an average of 18.5 more years for a total of 83.5 years, and a person aged 100 could expect to live an additional 2.3 years on average ([Table A](#)). Life expectancy at age 100, particularly for the black population, should be interpreted with caution as these figures may be affected somewhat by age misreporting (15,16,17).

## Survivorship in the United States

[Table B](#) summarizes the number of survivors out of 100,000 persons born alive ( $l_x$ ) by age, race, and sex. [Table 10](#) shows trends in survivorship from 1900 through 2006. In 2006, 99.3 percent of all infants born in the United States survived the first year of life. In

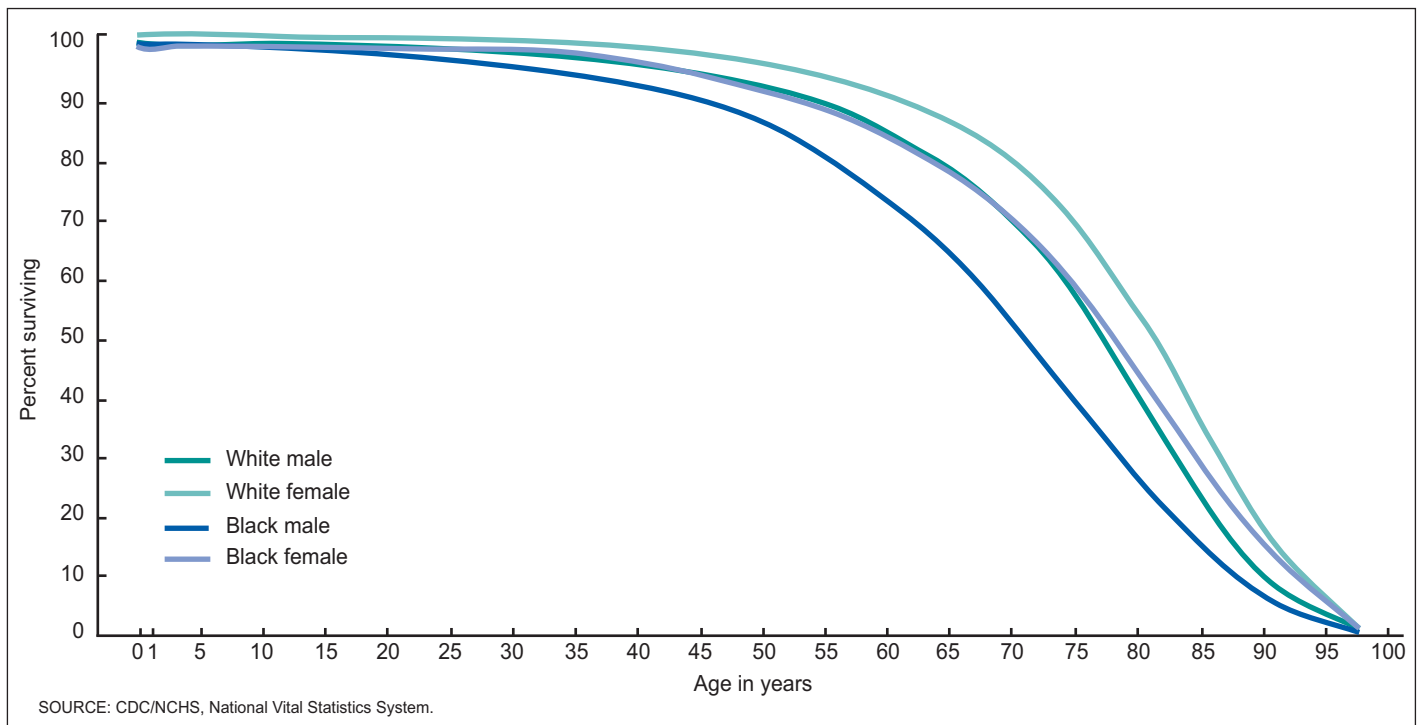


**Figure 1. Life expectancy at birth, by race and sex: United States, 1970–2006**

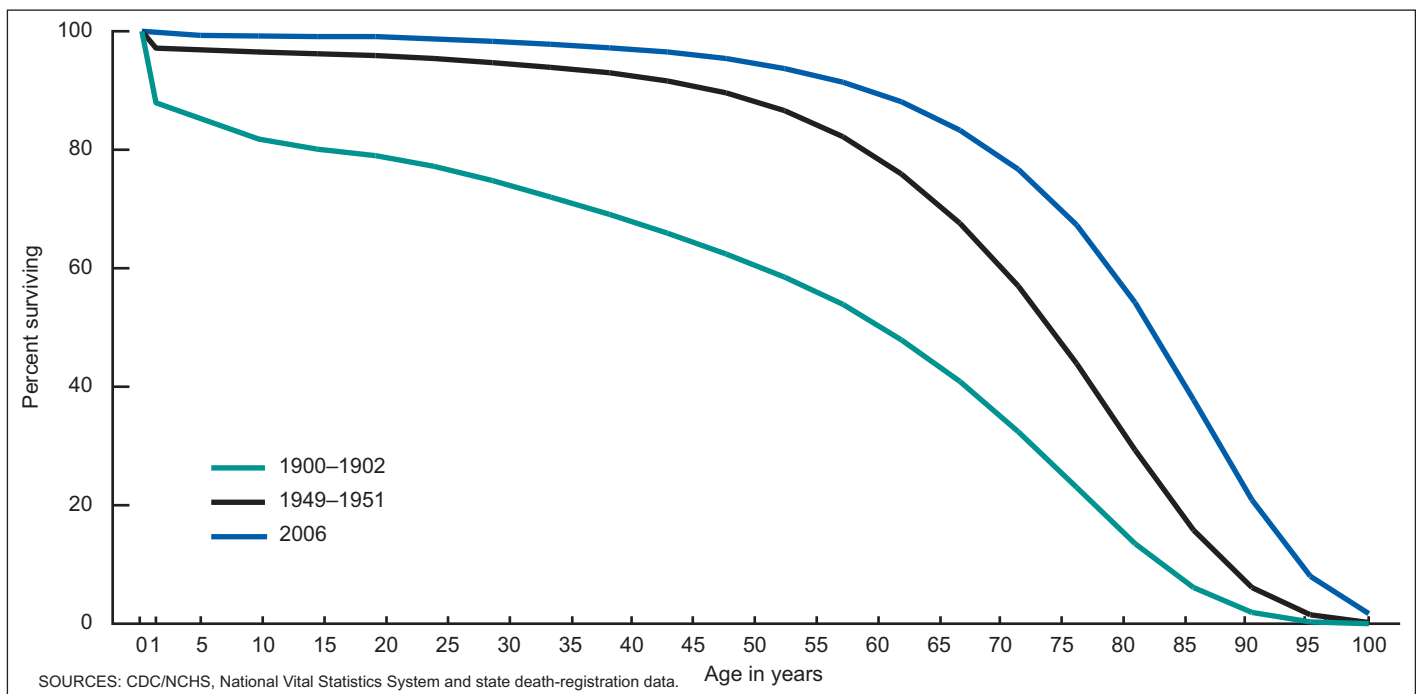
contrast, only 87.6 percent of infants born in 1900 survived the first year. Fifty-four percent of the 2006 synthetic life table cohort survived to age 80 and about 1.7 percent survived to age 100. In 1900, the median age at death was 58 and only 0.03 percent survived to age 100.

Among the four groups shown in [Figure 2](#) and [Table B](#), white females have the highest median age at death with about 49 percent surviving to age 84. Of the original hypothetical cohort of 100,000 infant white females, 99.1 percent survive to age 20, 88 percent to age 65, and 45.4 percent to age 85. For white males and black females, the pattern of survival by age is similar. White males have slightly higher survival rates than black females at the younger ages with 98.7 percent surviving to age 20 and 80.5 percent surviving to age 65 compared with 98.3 percent and 79.9 percent, respectively, for black females. At the older ages, in contrast, black female survival surpasses white male survival. At age 85, white male survival is 31.2 percent compared with 36.1 percent for black females. This crossover, which occurs at age 75, is clearly shown in [Figure 2](#). The median age at death for black males is 73 years, which is 11 years less than that of white females. For black males, 97.5 percent survive to age 20, 67.4 percent to age 65, and 20 percent to age 85. By age 100, there is very little difference between the white and black populations in terms of survival. Less than 1 percent of white and black males and slightly over 2 percent of white and black females, respectively, survive to age 100.

Plotting the percentage surviving by age for the periods 1900–1902, 1949–1951, and 2006 shows an increasingly rectangular survival curve ([Figure 3](#)). That is, the survival curve has become increasingly flat in response to progressively lower mortality, particularly at the younger ages, and increasingly vertical at the older ages. The



**Figure 2. Percentage surviving, by age, race, and sex: United States, 2006**



**Figure 3. Percentage surviving, by age: Death-registration states, 1900–1902, and United States, 1949–1951 and 2006**

survival curve for the period 1900–1902 shows a rapid decline in survival in the first few years of life and a relatively steady decline thereafter. In contrast, the survival curve for 2006 is nearly flat until about age 50 after which the decline in survival becomes more rapid. Improvements in survival between the periods 1900–1902 and 1949–1951 occurred at all ages, although the largest improvements were among the younger population. Between 1949–1951 and 2006, improvements occurred primarily for the older population.

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Table 1. Life table for the total population: United States, 2006

|       | Probability<br>of dying<br>between<br>ages $x$ to $x + 1$ | Number<br>surviving to<br>age $x$ | Number<br>dying<br>between<br>ages $x$ to $x + 1$ | Person-years<br>lived<br>between<br>ages $x$ to $x + 1$ | Total<br>number of<br>person-years<br>lived above<br>age $x$ | Expectation<br>of life<br>at age $x$ |
|-------|-----------------------------------------------------------|-----------------------------------|---------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------|--------------------------------------|
| Age   | $q_x$                                                     | $l_x$                             | $d_x$                                             | $L_x$                                                   | $T_x$                                                        | $e_x$                                |
| 0-1   | 0.006713                                                  | 100,000                           | 671                                               | 99,409                                                  | 7,770,850                                                    | 77.7                                 |
| 1-2   | 0.000444                                                  | 99,329                            | 44                                                | 99,307                                                  | 7,671,441                                                    | 77.2                                 |
| 2-3   | 0.000300                                                  | 99,285                            | 30                                                | 99,270                                                  | 7,572,134                                                    | 76.3                                 |
| 3-4   | 0.000216                                                  | 99,255                            | 21                                                | 99,244                                                  | 7,472,864                                                    | 75.3                                 |
| 4-5   | 0.000179                                                  | 99,233                            | 18                                                | 99,225                                                  | 7,373,620                                                    | 74.3                                 |
| 5-6   | 0.000168                                                  | 99,216                            | 17                                                | 99,207                                                  | 7,274,396                                                    | 73.3                                 |
| 6-7   | 0.000156                                                  | 99,199                            | 15                                                | 99,191                                                  | 7,175,188                                                    | 72.3                                 |
| 7-8   | 0.000143                                                  | 99,184                            | 14                                                | 99,177                                                  | 7,075,997                                                    | 71.3                                 |
| 8-9   | 0.000125                                                  | 99,169                            | 12                                                | 99,163                                                  | 6,976,820                                                    | 70.4                                 |
| 9-10  | 0.000103                                                  | 99,157                            | 10                                                | 99,152                                                  | 6,877,657                                                    | 69.4                                 |
| 10-11 | 0.000086                                                  | 99,147                            | 9                                                 | 99,143                                                  | 6,778,505                                                    | 68.4                                 |
| 11-12 | 0.000088                                                  | 99,138                            | 9                                                 | 99,134                                                  | 6,679,363                                                    | 67.4                                 |
| 12-13 | 0.000125                                                  | 99,130                            | 12                                                | 99,123                                                  | 6,580,229                                                    | 66.4                                 |
| 13-14 | 0.000206                                                  | 99,117                            | 20                                                | 99,107                                                  | 6,481,105                                                    | 65.4                                 |
| 14-15 | 0.000317                                                  | 99,097                            | 31                                                | 99,081                                                  | 6,381,999                                                    | 64.4                                 |
| 15-16 | 0.000438                                                  | 99,065                            | 43                                                | 99,044                                                  | 6,282,918                                                    | 63.4                                 |
| 16-17 | 0.000552                                                  | 99,022                            | 55                                                | 98,995                                                  | 6,183,874                                                    | 62.4                                 |
| 17-18 | 0.000657                                                  | 98,967                            | 65                                                | 98,935                                                  | 6,084,879                                                    | 61.5                                 |
| 18-19 | 0.000747                                                  | 98,902                            | 74                                                | 98,865                                                  | 5,985,945                                                    | 60.5                                 |
| 19-20 | 0.000825                                                  | 98,828                            | 82                                                | 98,788                                                  | 5,887,079                                                    | 59.6                                 |
| 20-21 | 0.000905                                                  | 98,747                            | 89                                                | 98,702                                                  | 5,788,291                                                    | 58.6                                 |
| 21-22 | 0.000983                                                  | 98,658                            | 97                                                | 98,609                                                  | 5,689,589                                                    | 57.7                                 |
| 22-23 | 0.001033                                                  | 98,561                            | 102                                               | 98,510                                                  | 5,590,980                                                    | 56.7                                 |
| 23-24 | 0.001049                                                  | 98,459                            | 103                                               | 98,407                                                  | 5,492,471                                                    | 55.8                                 |
| 24-25 | 0.001038                                                  | 98,355                            | 102                                               | 98,304                                                  | 5,394,063                                                    | 54.8                                 |
| 25-26 | 0.001019                                                  | 98,253                            | 100                                               | 98,203                                                  | 5,295,759                                                    | 53.9                                 |
| 26-27 | 0.001006                                                  | 98,153                            | 99                                                | 98,104                                                  | 5,197,556                                                    | 53.0                                 |
| 27-28 | 0.000998                                                  | 98,055                            | 98                                                | 98,006                                                  | 5,099,452                                                    | 52.0                                 |
| 28-29 | 0.001002                                                  | 97,957                            | 98                                                | 97,908                                                  | 5,001,446                                                    | 51.1                                 |
| 29-30 | 0.001018                                                  | 97,859                            | 100                                               | 97,809                                                  | 4,903,539                                                    | 50.1                                 |
| 30-31 | 0.001042                                                  | 97,759                            | 102                                               | 97,708                                                  | 4,805,730                                                    | 49.2                                 |
| 31-32 | 0.001072                                                  | 97,657                            | 105                                               | 97,605                                                  | 4,708,022                                                    | 48.2                                 |
| 32-33 | 0.001113                                                  | 97,552                            | 109                                               | 97,498                                                  | 4,610,417                                                    | 47.3                                 |
| 33-34 | 0.001156                                                  | 97,444                            | 113                                               | 97,387                                                  | 4,512,919                                                    | 46.3                                 |
| 34-35 | 0.001212                                                  | 97,331                            | 118                                               | 97,272                                                  | 4,415,532                                                    | 45.4                                 |
| 35-36 | 0.001276                                                  | 97,213                            | 124                                               | 97,151                                                  | 4,318,260                                                    | 44.4                                 |
| 36-37 | 0.001355                                                  | 97,089                            | 132                                               | 97,023                                                  | 4,221,109                                                    | 43.5                                 |
| 37-38 | 0.001456                                                  | 96,958                            | 141                                               | 96,887                                                  | 4,124,085                                                    | 42.5                                 |
| 38-39 | 0.001585                                                  | 96,816                            | 153                                               | 96,740                                                  | 4,027,198                                                    | 41.6                                 |
| 39-40 | 0.001739                                                  | 96,663                            | 168                                               | 96,579                                                  | 3,930,459                                                    | 40.7                                 |
| 40-41 | 0.001903                                                  | 96,495                            | 184                                               | 96,403                                                  | 3,833,880                                                    | 39.7                                 |
| 41-42 | 0.002077                                                  | 96,311                            | 200                                               | 96,211                                                  | 3,737,477                                                    | 38.8                                 |
| 42-43 | 0.002268                                                  | 96,111                            | 218                                               | 96,002                                                  | 3,641,266                                                    | 37.9                                 |
| 43-44 | 0.002479                                                  | 95,893                            | 238                                               | 95,774                                                  | 3,545,264                                                    | 37.0                                 |
| 44-45 | 0.002706                                                  | 95,655                            | 259                                               | 95,526                                                  | 3,449,490                                                    | 36.1                                 |
| 45-46 | 0.002943                                                  | 95,397                            | 281                                               | 95,256                                                  | 3,353,964                                                    | 35.2                                 |
| 46-47 | 0.003190                                                  | 95,116                            | 303                                               | 94,964                                                  | 3,258,707                                                    | 34.3                                 |
| 47-48 | 0.003453                                                  | 94,812                            | 327                                               | 94,649                                                  | 3,163,743                                                    | 33.4                                 |
| 48-49 | 0.003741                                                  | 94,485                            | 353                                               | 94,308                                                  | 3,069,095                                                    | 32.5                                 |
| 49-50 | 0.004057                                                  | 94,132                            | 382                                               | 93,941                                                  | 2,974,786                                                    | 31.6                                 |
| 50-51 | 0.004405                                                  | 93,750                            | 413                                               | 93,543                                                  | 2,880,846                                                    | 30.7                                 |
| 51-52 | 0.004778                                                  | 93,337                            | 446                                               | 93,114                                                  | 2,787,302                                                    | 29.9                                 |
| 52-53 | 0.005166                                                  | 92,891                            | 480                                               | 92,651                                                  | 2,694,189                                                    | 29.0                                 |
| 53-54 | 0.005554                                                  | 92,411                            | 513                                               | 92,154                                                  | 2,601,538                                                    | 28.2                                 |
| 54-55 | 0.005939                                                  | 91,898                            | 546                                               | 91,625                                                  | 2,509,383                                                    | 27.3                                 |
| 55-56 | 0.006335                                                  | 91,352                            | 579                                               | 91,063                                                  | 2,417,759                                                    | 26.5                                 |
| 56-57 | 0.006760                                                  | 90,773                            | 614                                               | 90,466                                                  | 2,326,696                                                    | 25.6                                 |
| 57-58 | 0.007234                                                  | 90,160                            | 652                                               | 89,834                                                  | 2,236,230                                                    | 24.8                                 |
| 58-59 | 0.007796                                                  | 89,507                            | 698                                               | 89,158                                                  | 2,146,396                                                    | 24.0                                 |
| 59-60 | 0.008470                                                  | 88,810                            | 752                                               | 88,433                                                  | 2,057,238                                                    | 23.2                                 |
| 60-61 | 0.009282                                                  | 88,057                            | 817                                               | 87,649                                                  | 1,968,804                                                    | 22.4                                 |
| 61-62 | 0.010204                                                  | 87,240                            | 890                                               | 86,795                                                  | 1,881,155                                                    | 21.6                                 |
| 62-63 | 0.011178                                                  | 86,350                            | 965                                               | 85,867                                                  | 1,794,360                                                    | 20.8                                 |
| 63-64 | 0.012118                                                  | 85,385                            | 1,035                                             | 84,867                                                  | 1,708,493                                                    | 20.0                                 |
| 64-65 | 0.013024                                                  | 84,350                            | 1,099                                             | 83,801                                                  | 1,623,626                                                    | 19.2                                 |
| 65-66 | 0.013999                                                  | 83,251                            | 1,165                                             | 82,669                                                  | 1,539,825                                                    | 18.5                                 |
| 66-67 | 0.014995                                                  | 82,086                            | 1,231                                             | 81,471                                                  | 1,457,156                                                    | 17.8                                 |

**Table 1. Life table for the total population: United States, 2006—Con.**

|                        | Probability<br>of dying<br>between<br>ages $x$ to $x + 1$ | Number<br>surviving to<br>age $x$ | Number<br>dying<br>between<br>ages $x$ to $x + 1$ | Person-years<br>lived<br>between<br>ages $x$ to $x + 1$ | Total<br>number of<br>person-years<br>lived above<br>age $x$ | Expectation<br>of life<br>at age $x$ |
|------------------------|-----------------------------------------------------------|-----------------------------------|---------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------|--------------------------------------|
| Age                    | $q_x$                                                     | $l_x$                             | $d_x$                                             | $L_x$                                                   | $T_x$                                                        | $e_x$                                |
| 67-68 . . . . .        | 0.016161                                                  | 80,855                            | 1,307                                             | 80,202                                                  | 1,375,686                                                    | 17.0                                 |
| 68-69 . . . . .        | 0.017527                                                  | 79,548                            | 1,394                                             | 78,851                                                  | 1,295,484                                                    | 16.3                                 |
| 69-70 . . . . .        | 0.019109                                                  | 78,154                            | 1,493                                             | 77,408                                                  | 1,216,633                                                    | 15.6                                 |
| 70-71 . . . . .        | 0.020890                                                  | 76,661                            | 1,601                                             | 75,860                                                  | 1,139,225                                                    | 14.9                                 |
| 71-72 . . . . .        | 0.022925                                                  | 75,059                            | 1,721                                             | 74,199                                                  | 1,063,365                                                    | 14.2                                 |
| 72-73 . . . . .        | 0.025280                                                  | 73,339                            | 1,854                                             | 72,412                                                  | 989,166                                                      | 13.5                                 |
| 73-74 . . . . .        | 0.027972                                                  | 71,485                            | 2,000                                             | 70,485                                                  | 916,755                                                      | 12.8                                 |
| 74-75 . . . . .        | 0.030997                                                  | 69,485                            | 2,154                                             | 68,408                                                  | 846,270                                                      | 12.2                                 |
| 75-76 . . . . .        | 0.034386                                                  | 67,331                            | 2,315                                             | 66,174                                                  | 777,862                                                      | 11.6                                 |
| 76-77 . . . . .        | 0.038027                                                  | 65,016                            | 2,472                                             | 63,780                                                  | 711,688                                                      | 10.9                                 |
| 77-78 . . . . .        | 0.042036                                                  | 62,544                            | 2,629                                             | 61,229                                                  | 647,908                                                      | 10.4                                 |
| 78-79 . . . . .        | 0.046447                                                  | 59,915                            | 2,783                                             | 58,523                                                  | 586,679                                                      | 9.8                                  |
| 79-80 . . . . .        | 0.051297                                                  | 57,132                            | 2,931                                             | 55,666                                                  | 528,156                                                      | 9.2                                  |
| 80-81 . . . . .        | 0.056623                                                  | 54,201                            | 3,069                                             | 52,667                                                  | 472,489                                                      | 8.7                                  |
| 81-82 . . . . .        | 0.062465                                                  | 51,132                            | 3,194                                             | 49,535                                                  | 419,823                                                      | 8.2                                  |
| 82-83 . . . . .        | 0.068867                                                  | 47,938                            | 3,301                                             | 46,287                                                  | 370,288                                                      | 7.7                                  |
| 83-84 . . . . .        | 0.075871                                                  | 44,637                            | 3,387                                             | 42,943                                                  | 324,000                                                      | 7.3                                  |
| 84-85 . . . . .        | 0.083524                                                  | 41,250                            | 3,445                                             | 39,527                                                  | 281,057                                                      | 6.8                                  |
| 85-86 . . . . .        | 0.091872                                                  | 37,805                            | 3,473                                             | 36,068                                                  | 241,530                                                      | 6.4                                  |
| 86-87 . . . . .        | 0.100962                                                  | 34,332                            | 3,466                                             | 32,598                                                  | 205,461                                                      | 6.0                                  |
| 87-88 . . . . .        | 0.110842                                                  | 30,865                            | 3,421                                             | 29,155                                                  | 172,863                                                      | 5.6                                  |
| 88-89 . . . . .        | 0.121558                                                  | 27,444                            | 3,336                                             | 25,776                                                  | 143,708                                                      | 5.2                                  |
| 89-90 . . . . .        | 0.133155                                                  | 24,108                            | 3,210                                             | 22,503                                                  | 117,932                                                      | 4.9                                  |
| 90-91 . . . . .        | 0.145675                                                  | 20,898                            | 3,044                                             | 19,376                                                  | 95,429                                                       | 4.6                                  |
| 91-92 . . . . .        | 0.159156                                                  | 17,854                            | 2,842                                             | 16,433                                                  | 76,053                                                       | 4.3                                  |
| 92-93 . . . . .        | 0.173631                                                  | 15,012                            | 2,607                                             | 13,709                                                  | 59,620                                                       | 4.0                                  |
| 93-94 . . . . .        | 0.189127                                                  | 12,406                            | 2,346                                             | 11,232                                                  | 45,911                                                       | 3.7                                  |
| 94-95 . . . . .        | 0.205661                                                  | 10,059                            | 2,069                                             | 9,025                                                   | 34,679                                                       | 3.4                                  |
| 95-96 . . . . .        | 0.223242                                                  | 7,991                             | 1,784                                             | 7,099                                                   | 25,654                                                       | 3.2                                  |
| 96-97 . . . . .        | 0.241869                                                  | 6,207                             | 1,501                                             | 5,456                                                   | 18,555                                                       | 3.0                                  |
| 97-98 . . . . .        | 0.261527                                                  | 4,706                             | 1,231                                             | 4,090                                                   | 13,099                                                       | 2.8                                  |
| 98-99 . . . . .        | 0.282188                                                  | 3,475                             | 981                                               | 2,985                                                   | 9,009                                                        | 2.6                                  |
| 99-100 . . . . .       | 0.303810                                                  | 2,494                             | 758                                               | 2,115                                                   | 6,024                                                        | 2.4                                  |
| 100 and over . . . . . | 1.00000                                                   | 1,737                             | 1,737                                             | 3,909                                                   | 3,909                                                        | 2.3                                  |

Table 2. Life table for males: United States, 2006

|       | Probability<br>of dying<br>between<br>ages $x$ to $x + 1$ | Number<br>surviving to<br>age $x$ | Number<br>dying<br>between<br>ages $x$ to $x + 1$ | Person-years<br>lived<br>between<br>ages $x$ to $x + 1$ | Total<br>number of<br>person-years<br>lived above<br>age $x$ | Expectation<br>of life<br>at age $x$ |
|-------|-----------------------------------------------------------|-----------------------------------|---------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------|--------------------------------------|
| Age   | $q_x$                                                     | $l_x$                             | $d_x$                                             | $L_x$                                                   | $T_x$                                                        | $e_x$                                |
| 0-1   | 0.007344                                                  | 100,000                           | 734                                               | 99,354                                                  | 7,512,716                                                    | 75.1                                 |
| 1-2   | 0.000460                                                  | 99,266                            | 46                                                | 99,243                                                  | 7,413,362                                                    | 74.7                                 |
| 2-3   | 0.000322                                                  | 99,220                            | 32                                                | 99,204                                                  | 7,314,119                                                    | 73.7                                 |
| 3-4   | 0.000245                                                  | 99,188                            | 24                                                | 99,176                                                  | 7,214,915                                                    | 72.7                                 |
| 4-5   | 0.000195                                                  | 99,164                            | 19                                                | 99,154                                                  | 7,115,739                                                    | 71.8                                 |
| 5-6   | 0.000186                                                  | 99,144                            | 18                                                | 99,135                                                  | 7,016,585                                                    | 70.8                                 |
| 6-7   | 0.000176                                                  | 99,126                            | 17                                                | 99,117                                                  | 6,917,450                                                    | 69.8                                 |
| 7-8   | 0.000163                                                  | 99,108                            | 16                                                | 99,100                                                  | 6,818,333                                                    | 68.8                                 |
| 8-9   | 0.000139                                                  | 99,092                            | 14                                                | 99,085                                                  | 6,719,233                                                    | 67.8                                 |
| 9-10  | 0.000107                                                  | 99,079                            | 11                                                | 99,073                                                  | 6,620,147                                                    | 66.8                                 |
| 10-11 | 0.000081                                                  | 99,068                            | 8                                                 | 99,064                                                  | 6,521,074                                                    | 65.8                                 |
| 11-12 | 0.000083                                                  | 99,060                            | 8                                                 | 99,056                                                  | 6,422,010                                                    | 64.8                                 |
| 12-13 | 0.000136                                                  | 99,052                            | 14                                                | 99,045                                                  | 6,322,954                                                    | 63.8                                 |
| 13-14 | 0.000254                                                  | 99,038                            | 25                                                | 99,026                                                  | 6,223,909                                                    | 62.8                                 |
| 14-15 | 0.000418                                                  | 99,013                            | 41                                                | 98,992                                                  | 6,124,884                                                    | 61.9                                 |
| 15-16 | 0.000594                                                  | 98,972                            | 59                                                | 98,942                                                  | 6,025,891                                                    | 60.9                                 |
| 16-17 | 0.000759                                                  | 98,913                            | 75                                                | 98,875                                                  | 5,926,949                                                    | 59.9                                 |
| 17-18 | 0.000918                                                  | 98,838                            | 91                                                | 98,792                                                  | 5,828,074                                                    | 59.0                                 |
| 18-19 | 0.001063                                                  | 98,747                            | 105                                               | 98,694                                                  | 5,729,282                                                    | 58.0                                 |
| 19-20 | 0.001193                                                  | 98,642                            | 118                                               | 98,583                                                  | 5,630,587                                                    | 57.1                                 |
| 20-21 | 0.001329                                                  | 98,524                            | 131                                               | 98,459                                                  | 5,532,004                                                    | 56.1                                 |
| 21-22 | 0.001456                                                  | 98,393                            | 143                                               | 98,322                                                  | 5,433,546                                                    | 55.2                                 |
| 22-23 | 0.001536                                                  | 98,250                            | 151                                               | 98,175                                                  | 5,335,224                                                    | 54.3                                 |
| 23-24 | 0.001554                                                  | 98,099                            | 152                                               | 98,023                                                  | 5,237,049                                                    | 53.4                                 |
| 24-25 | 0.001526                                                  | 97,947                            | 149                                               | 97,872                                                  | 5,139,026                                                    | 52.5                                 |
| 25-26 | 0.001480                                                  | 97,797                            | 145                                               | 97,725                                                  | 5,041,154                                                    | 51.5                                 |
| 26-27 | 0.001443                                                  | 97,653                            | 141                                               | 97,582                                                  | 4,943,430                                                    | 50.6                                 |
| 27-28 | 0.001416                                                  | 97,512                            | 138                                               | 97,443                                                  | 4,845,847                                                    | 49.7                                 |
| 28-29 | 0.001408                                                  | 97,374                            | 137                                               | 97,305                                                  | 4,748,405                                                    | 48.8                                 |
| 29-30 | 0.001418                                                  | 97,236                            | 138                                               | 97,168                                                  | 4,651,100                                                    | 47.8                                 |
| 30-31 | 0.001437                                                  | 97,099                            | 140                                               | 97,029                                                  | 4,553,932                                                    | 46.9                                 |
| 31-32 | 0.001460                                                  | 96,959                            | 142                                               | 96,888                                                  | 4,456,904                                                    | 46.0                                 |
| 32-33 | 0.001500                                                  | 96,817                            | 145                                               | 96,745                                                  | 4,360,015                                                    | 45.0                                 |
| 33-34 | 0.001535                                                  | 96,672                            | 148                                               | 96,598                                                  | 4,263,271                                                    | 44.1                                 |
| 34-35 | 0.001589                                                  | 96,524                            | 153                                               | 96,447                                                  | 4,166,672                                                    | 43.2                                 |
| 35-36 | 0.001653                                                  | 96,371                            | 159                                               | 96,291                                                  | 4,070,225                                                    | 42.2                                 |
| 36-37 | 0.001737                                                  | 96,211                            | 167                                               | 96,128                                                  | 3,973,934                                                    | 41.3                                 |
| 37-38 | 0.001851                                                  | 96,044                            | 178                                               | 95,955                                                  | 3,877,807                                                    | 40.4                                 |
| 38-39 | 0.002001                                                  | 95,866                            | 192                                               | 95,770                                                  | 3,781,851                                                    | 39.4                                 |
| 39-40 | 0.002183                                                  | 95,675                            | 209                                               | 95,570                                                  | 3,686,081                                                    | 38.5                                 |
| 40-41 | 0.002381                                                  | 95,466                            | 227                                               | 95,352                                                  | 3,590,511                                                    | 37.6                                 |
| 41-42 | 0.002592                                                  | 95,238                            | 247                                               | 95,115                                                  | 3,495,159                                                    | 36.7                                 |
| 42-43 | 0.002827                                                  | 94,991                            | 269                                               | 94,857                                                  | 3,400,044                                                    | 35.8                                 |
| 43-44 | 0.003087                                                  | 94,723                            | 292                                               | 94,577                                                  | 3,305,187                                                    | 34.9                                 |
| 44-45 | 0.003369                                                  | 94,430                            | 318                                               | 94,271                                                  | 3,210,610                                                    | 34.0                                 |
| 45-46 | 0.003662                                                  | 94,112                            | 345                                               | 93,940                                                  | 3,116,339                                                    | 33.1                                 |
| 46-47 | 0.003970                                                  | 93,768                            | 372                                               | 93,582                                                  | 3,022,398                                                    | 32.2                                 |
| 47-48 | 0.004309                                                  | 93,395                            | 402                                               | 93,194                                                  | 2,928,817                                                    | 31.4                                 |
| 48-49 | 0.004694                                                  | 92,993                            | 436                                               | 92,775                                                  | 2,835,623                                                    | 30.5                                 |
| 49-50 | 0.005125                                                  | 92,556                            | 474                                               | 92,319                                                  | 2,742,848                                                    | 29.6                                 |
| 50-51 | 0.005602                                                  | 92,082                            | 516                                               | 91,824                                                  | 2,650,529                                                    | 28.8                                 |
| 51-52 | 0.006107                                                  | 91,566                            | 559                                               | 91,287                                                  | 2,558,705                                                    | 27.9                                 |
| 52-53 | 0.006617                                                  | 91,007                            | 602                                               | 90,706                                                  | 2,467,418                                                    | 27.1                                 |
| 53-54 | 0.007104                                                  | 90,405                            | 642                                               | 90,084                                                  | 2,376,712                                                    | 26.3                                 |
| 54-55 | 0.007570                                                  | 89,763                            | 680                                               | 89,423                                                  | 2,286,628                                                    | 25.5                                 |
| 55-56 | 0.008042                                                  | 89,083                            | 716                                               | 88,725                                                  | 2,197,205                                                    | 24.7                                 |
| 56-57 | 0.008550                                                  | 88,367                            | 756                                               | 87,989                                                  | 2,108,480                                                    | 23.9                                 |
| 57-58 | 0.009114                                                  | 87,611                            | 798                                               | 87,212                                                  | 2,020,491                                                    | 23.1                                 |
| 58-59 | 0.009781                                                  | 86,813                            | 849                                               | 86,388                                                  | 1,933,279                                                    | 22.3                                 |
| 59-60 | 0.010582                                                  | 85,964                            | 910                                               | 85,509                                                  | 1,846,891                                                    | 21.5                                 |
| 60-61 | 0.011543                                                  | 85,054                            | 982                                               | 84,563                                                  | 1,761,382                                                    | 20.7                                 |
| 61-62 | 0.012632                                                  | 84,072                            | 1,062                                             | 83,541                                                  | 1,676,819                                                    | 19.9                                 |
| 62-63 | 0.013798                                                  | 83,010                            | 1,145                                             | 82,438                                                  | 1,593,278                                                    | 19.2                                 |
| 63-64 | 0.014946                                                  | 81,865                            | 1,224                                             | 81,253                                                  | 1,510,840                                                    | 18.5                                 |
| 64-65 | 0.016067                                                  | 80,641                            | 1,296                                             | 79,993                                                  | 1,429,587                                                    | 17.7                                 |
| 65-66 | 0.017272                                                  | 79,346                            | 1,370                                             | 78,660                                                  | 1,349,594                                                    | 17.0                                 |
| 66-67 | 0.018518                                                  | 77,975                            | 1,444                                             | 77,253                                                  | 1,270,933                                                    | 16.3                                 |

**Table 2. Life table for males: United States, 2006—Con.**

|                        | Probability<br>of dying<br>between<br>ages $x$ to $x + 1$ | Number<br>surviving to<br>age $x$ | Number<br>dying<br>between<br>ages $x$ to $x + 1$ | Person-years<br>lived<br>between<br>ages $x$ to $x + 1$ | Total<br>number of<br>person-years<br>lived above<br>age $x$ | Expectation<br>of life<br>at age $x$ |
|------------------------|-----------------------------------------------------------|-----------------------------------|---------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------|--------------------------------------|
| Age                    | $q_x$                                                     | $l_x$                             | $d_x$                                             | $L_x$                                                   | $T_x$                                                        | $e_x$                                |
| 67-68 . . . . .        | 0.019974                                                  | 76,531                            | 1,529                                             | 75,767                                                  | 1,193,680                                                    | 15.6                                 |
| 68-69 . . . . .        | 0.021630                                                  | 75,003                            | 1,622                                             | 74,191                                                  | 1,117,913                                                    | 14.9                                 |
| 69-70 . . . . .        | 0.023559                                                  | 73,380                            | 1,729                                             | 72,516                                                  | 1,043,722                                                    | 14.2                                 |
| 70-71 . . . . .        | 0.025737                                                  | 71,652                            | 1,844                                             | 70,729                                                  | 971,206                                                      | 13.6                                 |
| 71-72 . . . . .        | 0.028223                                                  | 69,807                            | 1,970                                             | 68,822                                                  | 900,477                                                      | 12.9                                 |
| 72-73 . . . . .        | 0.031103                                                  | 67,837                            | 2,110                                             | 66,782                                                  | 831,654                                                      | 12.3                                 |
| 73-74 . . . . .        | 0.034372                                                  | 65,727                            | 2,259                                             | 64,598                                                  | 764,872                                                      | 11.6                                 |
| 74-75 . . . . .        | 0.037995                                                  | 63,468                            | 2,411                                             | 62,262                                                  | 700,274                                                      | 11.0                                 |
| 75-76 . . . . .        | 0.042023                                                  | 61,057                            | 2,566                                             | 59,774                                                  | 638,012                                                      | 10.4                                 |
| 76-77 . . . . .        | 0.046338                                                  | 58,491                            | 2,710                                             | 57,136                                                  | 578,238                                                      | 9.9                                  |
| 77-78 . . . . .        | 0.051072                                                  | 55,780                            | 2,849                                             | 54,356                                                  | 521,103                                                      | 9.3                                  |
| 78-79 . . . . .        | 0.056262                                                  | 52,932                            | 2,978                                             | 51,443                                                  | 466,747                                                      | 8.8                                  |
| 79-80 . . . . .        | 0.061944                                                  | 49,954                            | 3,094                                             | 48,406                                                  | 415,304                                                      | 8.3                                  |
| 80-81 . . . . .        | 0.068159                                                  | 46,859                            | 3,194                                             | 45,262                                                  | 366,898                                                      | 7.8                                  |
| 81-82 . . . . .        | 0.074947                                                  | 43,665                            | 3,273                                             | 42,029                                                  | 321,636                                                      | 7.4                                  |
| 82-83 . . . . .        | 0.082352                                                  | 40,393                            | 3,326                                             | 38,730                                                  | 279,606                                                      | 6.9                                  |
| 83-84 . . . . .        | 0.090417                                                  | 37,066                            | 3,351                                             | 35,391                                                  | 240,877                                                      | 6.5                                  |
| 84-85 . . . . .        | 0.099186                                                  | 33,715                            | 3,344                                             | 32,043                                                  | 205,486                                                      | 6.1                                  |
| 85-86 . . . . .        | 0.108704                                                  | 30,371                            | 3,301                                             | 28,720                                                  | 173,443                                                      | 5.7                                  |
| 86-87 . . . . .        | 0.119015                                                  | 27,069                            | 3,222                                             | 25,459                                                  | 144,723                                                      | 5.3                                  |
| 87-88 . . . . .        | 0.130161                                                  | 23,848                            | 3,104                                             | 22,296                                                  | 119,265                                                      | 5.0                                  |
| 88-89 . . . . .        | 0.142182                                                  | 20,744                            | 2,949                                             | 19,269                                                  | 96,969                                                       | 4.7                                  |
| 89-90 . . . . .        | 0.155116                                                  | 17,794                            | 2,760                                             | 16,414                                                  | 77,700                                                       | 4.4                                  |
| 90-91 . . . . .        | 0.168995                                                  | 15,034                            | 2,541                                             | 13,764                                                  | 61,286                                                       | 4.1                                  |
| 91-92 . . . . .        | 0.183844                                                  | 12,493                            | 2,297                                             | 11,345                                                  | 47,522                                                       | 3.8                                  |
| 92-93 . . . . .        | 0.199686                                                  | 10,197                            | 2,036                                             | 9,179                                                   | 36,177                                                       | 3.5                                  |
| 93-94 . . . . .        | 0.216530                                                  | 8,160                             | 1,767                                             | 7,277                                                   | 26,998                                                       | 3.3                                  |
| 94-95 . . . . .        | 0.234379                                                  | 6,394                             | 1,499                                             | 5,644                                                   | 19,721                                                       | 3.1                                  |
| 95-96 . . . . .        | 0.253223                                                  | 4,895                             | 1,240                                             | 4,275                                                   | 14,077                                                       | 2.9                                  |
| 96-97 . . . . .        | 0.273043                                                  | 3,655                             | 998                                               | 3,156                                                   | 9,802                                                        | 2.7                                  |
| 97-98 . . . . .        | 0.293803                                                  | 2,657                             | 781                                               | 2,267                                                   | 6,645                                                        | 2.5                                  |
| 98-99 . . . . .        | 0.315457                                                  | 1,877                             | 592                                               | 1,581                                                   | 4,378                                                        | 2.3                                  |
| 99-100 . . . . .       | 0.337943                                                  | 1,285                             | 434                                               | 1,068                                                   | 2,798                                                        | 2.2                                  |
| 100 and over . . . . . | 1.00000                                                   | 850                               | 850                                               | 1,730                                                   | 1,730                                                        | 2.0                                  |

Table 3. Life table for females: United States, 2006

|       | Probability<br>of dying<br>between<br>ages $x$ to $x + 1$ | Number<br>surviving to<br>age $x$ | Number<br>dying<br>between<br>ages $x$ to $x + 1$ | Person-years<br>lived<br>between<br>ages $x$ to $x + 1$ | Total<br>number of<br>person-years<br>lived above<br>age $x$ | Expectation<br>of life<br>at age $x$ |
|-------|-----------------------------------------------------------|-----------------------------------|---------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------|--------------------------------------|
| Age   | $q_x$                                                     | $l_x$                             | $d_x$                                             | $L_x$                                                   | $T_x$                                                        | $e_x$                                |
| 0-1   | 0.006051                                                  | 100,000                           | 605                                               | 99,467                                                  | 8,020,082                                                    | 80.2                                 |
| 1-2   | 0.000427                                                  | 99,395                            | 42                                                | 99,374                                                  | 7,920,615                                                    | 79.7                                 |
| 2-3   | 0.000276                                                  | 99,352                            | 27                                                | 99,339                                                  | 7,821,242                                                    | 78.7                                 |
| 3-4   | 0.000185                                                  | 99,325                            | 18                                                | 99,316                                                  | 7,721,903                                                    | 77.7                                 |
| 4-5   | 0.000162                                                  | 99,307                            | 16                                                | 99,299                                                  | 7,622,587                                                    | 76.8                                 |
| 5-6   | 0.000149                                                  | 99,291                            | 15                                                | 99,283                                                  | 7,523,288                                                    | 75.8                                 |
| 6-7   | 0.000134                                                  | 99,276                            | 13                                                | 99,269                                                  | 7,424,005                                                    | 74.8                                 |
| 7-8   | 0.000123                                                  | 99,262                            | 12                                                | 99,256                                                  | 7,324,736                                                    | 73.8                                 |
| 8-9   | 0.000111                                                  | 99,250                            | 11                                                | 99,245                                                  | 7,225,480                                                    | 72.8                                 |
| 9-10  | 0.000099                                                  | 99,239                            | 10                                                | 99,234                                                  | 7,126,235                                                    | 71.8                                 |
| 10-11 | 0.000091                                                  | 99,229                            | 9                                                 | 99,225                                                  | 7,027,001                                                    | 70.8                                 |
| 11-12 | 0.000093                                                  | 99,220                            | 9                                                 | 99,216                                                  | 6,927,776                                                    | 69.8                                 |
| 12-13 | 0.000113                                                  | 99,211                            | 11                                                | 99,206                                                  | 6,828,560                                                    | 68.8                                 |
| 13-14 | 0.000155                                                  | 99,200                            | 15                                                | 99,192                                                  | 6,729,354                                                    | 67.8                                 |
| 14-15 | 0.000211                                                  | 99,185                            | 21                                                | 99,174                                                  | 6,630,162                                                    | 66.8                                 |
| 15-16 | 0.000275                                                  | 99,164                            | 27                                                | 99,150                                                  | 6,530,988                                                    | 65.9                                 |
| 16-17 | 0.000334                                                  | 99,137                            | 33                                                | 99,120                                                  | 6,431,838                                                    | 64.9                                 |
| 17-18 | 0.000382                                                  | 99,103                            | 38                                                | 99,085                                                  | 6,332,718                                                    | 63.9                                 |
| 18-19 | 0.000414                                                  | 99,066                            | 41                                                | 99,045                                                  | 6,233,633                                                    | 62.9                                 |
| 19-20 | 0.000434                                                  | 99,025                            | 43                                                | 99,003                                                  | 6,134,588                                                    | 62.0                                 |
| 20-21 | 0.000453                                                  | 98,982                            | 45                                                | 98,959                                                  | 6,035,585                                                    | 61.0                                 |
| 21-22 | 0.000475                                                  | 98,937                            | 47                                                | 98,913                                                  | 5,936,626                                                    | 60.0                                 |
| 22-23 | 0.000494                                                  | 98,890                            | 49                                                | 98,865                                                  | 5,837,712                                                    | 59.0                                 |
| 23-24 | 0.000508                                                  | 98,841                            | 50                                                | 98,816                                                  | 5,738,847                                                    | 58.1                                 |
| 24-25 | 0.000519                                                  | 98,791                            | 51                                                | 98,765                                                  | 5,640,031                                                    | 57.1                                 |
| 25-26 | 0.000532                                                  | 98,739                            | 52                                                | 98,713                                                  | 5,541,266                                                    | 56.1                                 |
| 26-27 | 0.000546                                                  | 98,687                            | 54                                                | 98,660                                                  | 5,442,553                                                    | 55.1                                 |
| 27-28 | 0.000562                                                  | 98,633                            | 55                                                | 98,605                                                  | 5,343,893                                                    | 54.2                                 |
| 28-29 | 0.000580                                                  | 98,578                            | 57                                                | 98,549                                                  | 5,245,288                                                    | 53.2                                 |
| 29-30 | 0.000604                                                  | 98,520                            | 59                                                | 98,491                                                  | 5,146,738                                                    | 52.2                                 |
| 30-31 | 0.000634                                                  | 98,461                            | 62                                                | 98,430                                                  | 5,048,248                                                    | 51.3                                 |
| 31-32 | 0.000671                                                  | 98,399                            | 66                                                | 98,366                                                  | 4,949,818                                                    | 50.3                                 |
| 32-33 | 0.000718                                                  | 98,333                            | 71                                                | 98,297                                                  | 4,851,452                                                    | 49.3                                 |
| 33-34 | 0.000769                                                  | 98,262                            | 76                                                | 98,224                                                  | 4,753,155                                                    | 48.4                                 |
| 34-35 | 0.000829                                                  | 98,186                            | 81                                                | 98,146                                                  | 4,654,931                                                    | 47.4                                 |
| 35-36 | 0.000893                                                  | 98,105                            | 88                                                | 98,061                                                  | 4,556,785                                                    | 46.4                                 |
| 36-37 | 0.000967                                                  | 98,017                            | 95                                                | 97,970                                                  | 4,458,724                                                    | 45.5                                 |
| 37-38 | 0.001057                                                  | 97,923                            | 103                                               | 97,871                                                  | 4,360,754                                                    | 44.5                                 |
| 38-39 | 0.001166                                                  | 97,819                            | 114                                               | 97,762                                                  | 4,262,883                                                    | 43.6                                 |
| 39-40 | 0.001293                                                  | 97,705                            | 126                                               | 97,642                                                  | 4,165,120                                                    | 42.6                                 |
| 40-41 | 0.001425                                                  | 97,579                            | 139                                               | 97,509                                                  | 4,067,478                                                    | 41.7                                 |
| 41-42 | 0.001563                                                  | 97,440                            | 152                                               | 97,364                                                  | 3,969,969                                                    | 40.7                                 |
| 42-43 | 0.001713                                                  | 97,288                            | 167                                               | 97,204                                                  | 3,872,605                                                    | 39.8                                 |
| 43-44 | 0.001877                                                  | 97,121                            | 182                                               | 97,030                                                  | 3,775,401                                                    | 38.9                                 |
| 44-45 | 0.002052                                                  | 96,939                            | 199                                               | 96,839                                                  | 3,678,371                                                    | 37.9                                 |
| 45-46 | 0.002236                                                  | 96,740                            | 216                                               | 96,632                                                  | 3,581,532                                                    | 37.0                                 |
| 46-47 | 0.002425                                                  | 96,523                            | 234                                               | 96,406                                                  | 3,484,901                                                    | 36.1                                 |
| 47-48 | 0.002617                                                  | 96,289                            | 252                                               | 96,163                                                  | 3,388,494                                                    | 35.2                                 |
| 48-49 | 0.002812                                                  | 96,037                            | 270                                               | 95,902                                                  | 3,292,331                                                    | 34.3                                 |
| 49-50 | 0.003020                                                  | 95,767                            | 289                                               | 95,623                                                  | 3,196,429                                                    | 33.4                                 |
| 50-51 | 0.003247                                                  | 95,478                            | 310                                               | 95,323                                                  | 3,100,806                                                    | 32.5                                 |
| 51-52 | 0.003497                                                  | 95,168                            | 333                                               | 95,002                                                  | 3,005,483                                                    | 31.6                                 |
| 52-53 | 0.003773                                                  | 94,835                            | 358                                               | 94,656                                                  | 2,910,482                                                    | 30.7                                 |
| 53-54 | 0.004070                                                  | 94,477                            | 384                                               | 94,285                                                  | 2,815,825                                                    | 29.8                                 |
| 54-55 | 0.004383                                                  | 94,093                            | 412                                               | 93,887                                                  | 2,721,540                                                    | 28.9                                 |
| 55-56 | 0.004710                                                  | 93,681                            | 441                                               | 93,460                                                  | 2,627,653                                                    | 28.0                                 |
| 56-57 | 0.005061                                                  | 93,239                            | 472                                               | 93,003                                                  | 2,534,193                                                    | 27.2                                 |
| 57-58 | 0.005457                                                  | 92,767                            | 506                                               | 92,514                                                  | 2,441,190                                                    | 26.3                                 |
| 58-59 | 0.005928                                                  | 92,261                            | 547                                               | 91,988                                                  | 2,348,676                                                    | 25.5                                 |
| 59-60 | 0.006494                                                  | 91,714                            | 596                                               | 91,416                                                  | 2,256,688                                                    | 24.6                                 |
| 60-61 | 0.007183                                                  | 91,119                            | 654                                               | 90,791                                                  | 2,165,272                                                    | 23.8                                 |
| 61-62 | 0.007966                                                  | 90,464                            | 721                                               | 90,104                                                  | 2,074,481                                                    | 22.9                                 |
| 62-63 | 0.008781                                                  | 89,743                            | 788                                               | 89,349                                                  | 1,984,377                                                    | 22.1                                 |
| 63-64 | 0.009551                                                  | 88,955                            | 850                                               | 88,531                                                  | 1,895,027                                                    | 21.3                                 |
| 64-65 | 0.010282                                                  | 88,106                            | 906                                               | 87,653                                                  | 1,806,497                                                    | 20.5                                 |
| 65-66 | 0.011073                                                  | 87,200                            | 966                                               | 86,717                                                  | 1,718,844                                                    | 19.7                                 |
| 66-67 | 0.011885                                                  | 86,234                            | 1,025                                             | 85,722                                                  | 1,632,127                                                    | 18.9                                 |

**Table 3. Life table for females: United States, 2006—Con.**

|                        | Probability<br>of dying<br>between<br>ages $x$ to $x + 1$ | Number<br>surviving to<br>age $x$ | Number<br>dying<br>between<br>ages $x$ to $x + 1$ | Person-years<br>lived<br>between<br>ages $x$ to $x + 1$ | Total<br>number of<br>person-years<br>lived above<br>age $x$ | Expectation<br>of life<br>at age $x$ |
|------------------------|-----------------------------------------------------------|-----------------------------------|---------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------|--------------------------------------|
| Age                    | $q_x$                                                     | $l_x$                             | $d_x$                                             | $L_x$                                                   | $T_x$                                                        | $e_x$                                |
| 67-68 . . . . .        | 0.012855                                                  | 85,209                            | 1,095                                             | 84,662                                                  | 1,546,405                                                    | 18.1                                 |
| 68-69 . . . . .        | 0.014010                                                  | 84,114                            | 1,178                                             | 83,525                                                  | 1,461,743                                                    | 17.4                                 |
| 69-70 . . . . .        | 0.015359                                                  | 82,936                            | 1,274                                             | 82,299                                                  | 1,378,218                                                    | 16.6                                 |
| 70-71 . . . . .        | 0.016895                                                  | 81,662                            | 1,380                                             | 80,972                                                  | 1,295,919                                                    | 15.9                                 |
| 71-72 . . . . .        | 0.018652                                                  | 80,282                            | 1,497                                             | 79,534                                                  | 1,214,947                                                    | 15.1                                 |
| 72-73 . . . . .        | 0.020679                                                  | 78,785                            | 1,629                                             | 77,970                                                  | 1,135,414                                                    | 14.4                                 |
| 73-74 . . . . .        | 0.022999                                                  | 77,156                            | 1,774                                             | 76,268                                                  | 1,057,444                                                    | 13.7                                 |
| 74-75 . . . . .        | 0.025637                                                  | 75,381                            | 1,933                                             | 74,415                                                  | 981,175                                                      | 13.0                                 |
| 75-76 . . . . .        | 0.028641                                                  | 73,449                            | 2,104                                             | 72,397                                                  | 906,760                                                      | 12.3                                 |
| 76-77 . . . . .        | 0.031894                                                  | 71,345                            | 2,275                                             | 70,207                                                  | 834,363                                                      | 11.7                                 |
| 77-78 . . . . .        | 0.035502                                                  | 69,070                            | 2,452                                             | 67,844                                                  | 764,156                                                      | 11.1                                 |
| 78-79 . . . . .        | 0.039502                                                  | 66,617                            | 2,631                                             | 65,302                                                  | 696,313                                                      | 10.5                                 |
| 79-80 . . . . .        | 0.043932                                                  | 63,986                            | 2,811                                             | 62,580                                                  | 631,011                                                      | 9.9                                  |
| 80-81 . . . . .        | 0.048833                                                  | 61,175                            | 2,987                                             | 59,681                                                  | 568,430                                                      | 9.3                                  |
| 81-82 . . . . .        | 0.054251                                                  | 58,188                            | 3,157                                             | 56,609                                                  | 508,749                                                      | 8.7                                  |
| 82-83 . . . . .        | 0.060231                                                  | 55,031                            | 3,315                                             | 53,374                                                  | 452,140                                                      | 8.2                                  |
| 83-84 . . . . .        | 0.066824                                                  | 51,716                            | 3,456                                             | 49,988                                                  | 398,766                                                      | 7.7                                  |
| 84-85 . . . . .        | 0.074082                                                  | 48,260                            | 3,575                                             | 46,473                                                  | 348,778                                                      | 7.2                                  |
| 85-86 . . . . .        | 0.082058                                                  | 44,685                            | 3,667                                             | 42,852                                                  | 302,305                                                      | 6.8                                  |
| 86-87 . . . . .        | 0.090810                                                  | 41,018                            | 3,725                                             | 39,156                                                  | 259,453                                                      | 6.3                                  |
| 87-88 . . . . .        | 0.100392                                                  | 37,294                            | 3,744                                             | 35,422                                                  | 220,297                                                      | 5.9                                  |
| 88-89 . . . . .        | 0.110863                                                  | 33,550                            | 3,719                                             | 31,690                                                  | 184,876                                                      | 5.5                                  |
| 89-90 . . . . .        | 0.122277                                                  | 29,830                            | 3,648                                             | 28,006                                                  | 153,186                                                      | 5.1                                  |
| 90-91 . . . . .        | 0.134688                                                  | 26,183                            | 3,526                                             | 24,419                                                  | 125,179                                                      | 4.8                                  |
| 91-92 . . . . .        | 0.148146                                                  | 22,656                            | 3,356                                             | 20,978                                                  | 100,760                                                      | 4.4                                  |
| 92-93 . . . . .        | 0.162697                                                  | 19,300                            | 3,140                                             | 17,730                                                  | 79,782                                                       | 4.1                                  |
| 93-94 . . . . .        | 0.178377                                                  | 16,160                            | 2,883                                             | 14,718                                                  | 62,052                                                       | 3.8                                  |
| 94-95 . . . . .        | 0.195216                                                  | 13,277                            | 2,592                                             | 11,981                                                  | 47,334                                                       | 3.6                                  |
| 95-96 . . . . .        | 0.213232                                                  | 10,685                            | 2,278                                             | 9,546                                                   | 35,352                                                       | 3.3                                  |
| 96-97 . . . . .        | 0.232430                                                  | 8,407                             | 1,954                                             | 7,430                                                   | 25,806                                                       | 3.1                                  |
| 97-98 . . . . .        | 0.252802                                                  | 6,453                             | 1,631                                             | 5,637                                                   | 18,376                                                       | 2.8                                  |
| 98-99 . . . . .        | 0.274321                                                  | 4,822                             | 1,323                                             | 4,160                                                   | 12,739                                                       | 2.6                                  |
| 99-100 . . . . .       | 0.296944                                                  | 3,499                             | 1,039                                             | 2,979                                                   | 8,579                                                        | 2.5                                  |
| 100 and over . . . . . | 1.00000                                                   | 2,460                             | 2,460                                             | 5,600                                                   | 5,600                                                        | 2.3                                  |

Table 4. Life table for the white population: United States, 2006

|       | Probability<br>of dying<br>between<br>ages $x$ to $x + 1$ | Number<br>surviving to<br>age $x$ | Number<br>dying<br>between<br>ages $x$ to $x + 1$ | Person-years<br>lived<br>between<br>ages $x$ to $x + 1$ | Total<br>number of<br>person-years<br>lived above<br>age $x$ | Expectation<br>of life<br>at age $x$ |
|-------|-----------------------------------------------------------|-----------------------------------|---------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------|--------------------------------------|
| Age   | $q_x$                                                     | $l_x$                             | $d_x$                                             | $L_x$                                                   | $T_x$                                                        | $e_x$                                |
| 0-1   | 0.005577                                                  | 100,000                           | 558                                               | 99,510                                                  | 7,815,546                                                    | 78.2                                 |
| 1-2   | 0.000394                                                  | 99,442                            | 39                                                | 99,423                                                  | 7,716,036                                                    | 77.6                                 |
| 2-3   | 0.000265                                                  | 99,403                            | 26                                                | 99,390                                                  | 7,616,613                                                    | 76.6                                 |
| 3-4   | 0.000199                                                  | 99,377                            | 20                                                | 99,367                                                  | 7,517,223                                                    | 75.6                                 |
| 4-5   | 0.000165                                                  | 99,357                            | 16                                                | 99,349                                                  | 7,417,856                                                    | 74.7                                 |
| 5-6   | 0.000153                                                  | 99,341                            | 15                                                | 99,333                                                  | 7,318,507                                                    | 73.7                                 |
| 6-7   | 0.000143                                                  | 99,325                            | 14                                                | 99,318                                                  | 7,219,174                                                    | 72.7                                 |
| 7-8   | 0.000132                                                  | 99,311                            | 13                                                | 99,305                                                  | 7,119,856                                                    | 71.7                                 |
| 8-9   | 0.000116                                                  | 99,298                            | 12                                                | 99,292                                                  | 7,020,551                                                    | 70.7                                 |
| 9-10  | 0.000096                                                  | 99,287                            | 10                                                | 99,282                                                  | 6,921,259                                                    | 69.7                                 |
| 10-11 | 0.000080                                                  | 99,277                            | 8                                                 | 99,273                                                  | 6,821,977                                                    | 68.7                                 |
| 11-12 | 0.000082                                                  | 99,269                            | 8                                                 | 99,265                                                  | 6,722,704                                                    | 67.7                                 |
| 12-13 | 0.000118                                                  | 99,261                            | 12                                                | 99,255                                                  | 6,623,439                                                    | 66.7                                 |
| 13-14 | 0.000195                                                  | 99,249                            | 19                                                | 99,240                                                  | 6,524,184                                                    | 65.7                                 |
| 14-15 | 0.000301                                                  | 99,230                            | 30                                                | 99,215                                                  | 6,424,944                                                    | 64.7                                 |
| 15-16 | 0.000416                                                  | 99,200                            | 41                                                | 99,179                                                  | 6,325,730                                                    | 63.8                                 |
| 16-17 | 0.000523                                                  | 99,159                            | 52                                                | 99,133                                                  | 6,226,550                                                    | 62.8                                 |
| 17-18 | 0.000622                                                  | 99,107                            | 62                                                | 99,076                                                  | 6,127,417                                                    | 61.8                                 |
| 18-19 | 0.000709                                                  | 99,045                            | 70                                                | 99,010                                                  | 6,028,341                                                    | 60.9                                 |
| 19-20 | 0.000783                                                  | 98,975                            | 77                                                | 98,936                                                  | 5,929,331                                                    | 59.9                                 |
| 20-21 | 0.000860                                                  | 98,898                            | 85                                                | 98,855                                                  | 5,830,395                                                    | 59.0                                 |
| 21-22 | 0.000933                                                  | 98,813                            | 92                                                | 98,766                                                  | 5,731,540                                                    | 58.0                                 |
| 22-23 | 0.000979                                                  | 98,720                            | 97                                                | 98,672                                                  | 5,632,773                                                    | 57.1                                 |
| 23-24 | 0.000990                                                  | 98,624                            | 98                                                | 98,575                                                  | 5,534,101                                                    | 56.1                                 |
| 24-25 | 0.000976                                                  | 98,526                            | 96                                                | 98,478                                                  | 5,435,526                                                    | 55.2                                 |
| 25-26 | 0.000953                                                  | 98,430                            | 94                                                | 98,383                                                  | 5,337,048                                                    | 54.2                                 |
| 26-27 | 0.000935                                                  | 98,336                            | 92                                                | 98,290                                                  | 5,238,665                                                    | 53.3                                 |
| 27-28 | 0.000924                                                  | 98,244                            | 91                                                | 98,199                                                  | 5,140,374                                                    | 52.3                                 |
| 28-29 | 0.000926                                                  | 98,153                            | 91                                                | 98,108                                                  | 5,042,176                                                    | 51.4                                 |
| 29-30 | 0.000940                                                  | 98,063                            | 92                                                | 98,017                                                  | 4,944,068                                                    | 50.4                                 |
| 30-31 | 0.000961                                                  | 97,970                            | 94                                                | 97,923                                                  | 4,846,051                                                    | 49.5                                 |
| 31-32 | 0.000988                                                  | 97,876                            | 97                                                | 97,828                                                  | 4,748,128                                                    | 48.5                                 |
| 32-33 | 0.001027                                                  | 97,780                            | 100                                               | 97,729                                                  | 4,650,300                                                    | 47.6                                 |
| 33-34 | 0.001067                                                  | 97,679                            | 104                                               | 97,627                                                  | 4,552,570                                                    | 46.6                                 |
| 34-35 | 0.001119                                                  | 97,575                            | 109                                               | 97,520                                                  | 4,454,943                                                    | 45.7                                 |
| 35-36 | 0.001178                                                  | 97,466                            | 115                                               | 97,408                                                  | 4,357,423                                                    | 44.7                                 |
| 36-37 | 0.001252                                                  | 97,351                            | 122                                               | 97,290                                                  | 4,260,015                                                    | 43.8                                 |
| 37-38 | 0.001347                                                  | 97,229                            | 131                                               | 97,164                                                  | 4,162,724                                                    | 42.8                                 |
| 38-39 | 0.001470                                                  | 97,098                            | 143                                               | 97,027                                                  | 4,065,561                                                    | 41.9                                 |
| 39-40 | 0.001616                                                  | 96,955                            | 157                                               | 96,877                                                  | 3,968,534                                                    | 40.9                                 |
| 40-41 | 0.001773                                                  | 96,799                            | 172                                               | 96,713                                                  | 3,871,657                                                    | 40.0                                 |
| 41-42 | 0.001937                                                  | 96,627                            | 187                                               | 96,534                                                  | 3,774,944                                                    | 39.1                                 |
| 42-43 | 0.002117                                                  | 96,440                            | 204                                               | 96,338                                                  | 3,678,411                                                    | 38.1                                 |
| 43-44 | 0.002314                                                  | 96,236                            | 223                                               | 96,124                                                  | 3,582,073                                                    | 37.2                                 |
| 44-45 | 0.002524                                                  | 96,013                            | 242                                               | 95,892                                                  | 3,485,948                                                    | 36.3                                 |
| 45-46 | 0.002745                                                  | 95,771                            | 263                                               | 95,639                                                  | 3,390,057                                                    | 35.4                                 |
| 46-47 | 0.002974                                                  | 95,508                            | 284                                               | 95,366                                                  | 3,294,417                                                    | 34.5                                 |
| 47-48 | 0.003216                                                  | 95,224                            | 306                                               | 95,071                                                  | 3,199,052                                                    | 33.6                                 |
| 48-49 | 0.003478                                                  | 94,918                            | 330                                               | 94,753                                                  | 3,103,981                                                    | 32.7                                 |
| 49-50 | 0.003766                                                  | 94,587                            | 356                                               | 94,409                                                  | 3,009,228                                                    | 31.8                                 |
| 50-51 | 0.004083                                                  | 94,231                            | 385                                               | 94,039                                                  | 2,914,819                                                    | 30.9                                 |
| 51-52 | 0.004427                                                  | 93,846                            | 415                                               | 93,639                                                  | 2,820,780                                                    | 30.1                                 |
| 52-53 | 0.004789                                                  | 93,431                            | 447                                               | 93,207                                                  | 2,727,141                                                    | 29.2                                 |
| 53-54 | 0.005159                                                  | 92,984                            | 480                                               | 92,744                                                  | 2,633,934                                                    | 28.3                                 |
| 54-55 | 0.005532                                                  | 92,504                            | 512                                               | 92,248                                                  | 2,541,190                                                    | 27.5                                 |
| 55-56 | 0.005915                                                  | 91,992                            | 544                                               | 91,720                                                  | 2,448,942                                                    | 26.6                                 |
| 56-57 | 0.006327                                                  | 91,448                            | 579                                               | 91,159                                                  | 2,357,222                                                    | 25.8                                 |
| 57-58 | 0.006793                                                  | 90,869                            | 617                                               | 90,561                                                  | 2,266,064                                                    | 24.9                                 |
| 58-59 | 0.007351                                                  | 90,252                            | 663                                               | 89,920                                                  | 2,175,503                                                    | 24.1                                 |
| 59-60 | 0.008024                                                  | 89,589                            | 719                                               | 89,229                                                  | 2,085,583                                                    | 23.3                                 |
| 60-61 | 0.008838                                                  | 88,870                            | 785                                               | 88,477                                                  | 1,996,353                                                    | 22.5                                 |
| 61-62 | 0.009758                                                  | 88,084                            | 860                                               | 87,655                                                  | 1,907,876                                                    | 21.7                                 |
| 62-63 | 0.010721                                                  | 87,225                            | 935                                               | 86,757                                                  | 1,820,222                                                    | 20.9                                 |
| 63-64 | 0.011644                                                  | 86,290                            | 1,005                                             | 85,787                                                  | 1,733,464                                                    | 20.1                                 |
| 64-65 | 0.012532                                                  | 85,285                            | 1,069                                             | 84,751                                                  | 1,647,677                                                    | 19.3                                 |
| 65-66 | 0.013499                                                  | 84,216                            | 1,137                                             | 83,648                                                  | 1,562,926                                                    | 18.6                                 |
| 66-67 | 0.014505                                                  | 83,079                            | 1,205                                             | 82,477                                                  | 1,479,279                                                    | 17.8                                 |

**Table 4. Life table for the white population: United States, 2006—Con.**

|                        | Probability<br>of dying<br>between<br>ages $x$ to $x + 1$ | Number<br>surviving to<br>age $x$ | Number<br>dying<br>between<br>ages $x$ to $x + 1$ | Person-years<br>lived<br>between<br>ages $x$ to $x + 1$ | Total<br>number of<br>person-years<br>lived above<br>age $x$ | Expectation<br>of life<br>at age $x$ |
|------------------------|-----------------------------------------------------------|-----------------------------------|---------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------|--------------------------------------|
| Age                    | $q_x$                                                     | $l_x$                             | $d_x$                                             | $L_x$                                                   | $T_x$                                                        | $e_x$                                |
| 67-68 . . . . .        | 0.015683                                                  | 81,874                            | 1,284                                             | 81,232                                                  | 1,396,802                                                    | 17.1                                 |
| 68-69 . . . . .        | 0.017058                                                  | 80,590                            | 1,375                                             | 79,903                                                  | 1,315,570                                                    | 16.3                                 |
| 69-70 . . . . .        | 0.018645                                                  | 79,215                            | 1,477                                             | 78,477                                                  | 1,235,667                                                    | 15.6                                 |
| 70-71 . . . . .        | 0.020428                                                  | 77,739                            | 1,588                                             | 76,944                                                  | 1,157,190                                                    | 14.9                                 |
| 71-72 . . . . .        | 0.022466                                                  | 76,150                            | 1,711                                             | 75,295                                                  | 1,080,245                                                    | 14.2                                 |
| 72-73 . . . . .        | 0.024824                                                  | 74,440                            | 1,848                                             | 73,516                                                  | 1,004,950                                                    | 13.5                                 |
| 73-74 . . . . .        | 0.027512                                                  | 72,592                            | 1,997                                             | 71,593                                                  | 931,435                                                      | 12.8                                 |
| 74-75 . . . . .        | 0.030528                                                  | 70,595                            | 2,155                                             | 69,517                                                  | 859,841                                                      | 12.2                                 |
| 75-76 . . . . .        | 0.033904                                                  | 68,440                            | 2,320                                             | 67,279                                                  | 790,324                                                      | 11.5                                 |
| 76-77 . . . . .        | 0.037564                                                  | 66,119                            | 2,484                                             | 64,877                                                  | 723,045                                                      | 10.9                                 |
| 77-78 . . . . .        | 0.041602                                                  | 63,635                            | 2,647                                             | 62,312                                                  | 658,168                                                      | 10.3                                 |
| 78-79 . . . . .        | 0.046053                                                  | 60,988                            | 2,809                                             | 59,584                                                  | 595,856                                                      | 9.8                                  |
| 79-80 . . . . .        | 0.050955                                                  | 58,179                            | 2,965                                             | 56,697                                                  | 536,272                                                      | 9.2                                  |
| 80-81 . . . . .        | 0.056348                                                  | 55,215                            | 3,111                                             | 53,659                                                  | 479,575                                                      | 8.7                                  |
| 81-82 . . . . .        | 0.062274                                                  | 52,104                            | 3,245                                             | 50,481                                                  | 425,915                                                      | 8.2                                  |
| 82-83 . . . . .        | 0.068778                                                  | 48,859                            | 3,360                                             | 47,179                                                  | 375,434                                                      | 7.7                                  |
| 83-84 . . . . .        | 0.075906                                                  | 45,499                            | 3,454                                             | 43,772                                                  | 328,255                                                      | 7.2                                  |
| 84-85 . . . . .        | 0.083707                                                  | 42,045                            | 3,519                                             | 40,285                                                  | 284,483                                                      | 6.8                                  |
| 85-86 . . . . .        | 0.092229                                                  | 38,526                            | 3,553                                             | 36,749                                                  | 244,198                                                      | 6.3                                  |
| 86-87 . . . . .        | 0.101523                                                  | 34,972                            | 3,551                                             | 33,197                                                  | 207,449                                                      | 5.9                                  |
| 87-88 . . . . .        | 0.111639                                                  | 31,422                            | 3,508                                             | 29,668                                                  | 174,252                                                      | 5.5                                  |
| 88-89 . . . . .        | 0.122624                                                  | 27,914                            | 3,423                                             | 26,203                                                  | 144,584                                                      | 5.2                                  |
| 89-90 . . . . .        | 0.134527                                                  | 24,491                            | 3,295                                             | 22,844                                                  | 118,381                                                      | 4.8                                  |
| 90-91 . . . . .        | 0.147391                                                  | 21,196                            | 3,124                                             | 19,634                                                  | 95,538                                                       | 4.5                                  |
| 91-92 . . . . .        | 0.161257                                                  | 18,072                            | 2,914                                             | 16,615                                                  | 75,903                                                       | 4.2                                  |
| 92-93 . . . . .        | 0.176157                                                  | 15,158                            | 2,670                                             | 13,823                                                  | 59,288                                                       | 3.9                                  |
| 93-94 . . . . .        | 0.192118                                                  | 12,488                            | 2,399                                             | 11,288                                                  | 45,466                                                       | 3.6                                  |
| 94-95 . . . . .        | 0.209159                                                  | 10,089                            | 2,110                                             | 9,034                                                   | 34,177                                                       | 3.4                                  |
| 95-96 . . . . .        | 0.227285                                                  | 7,979                             | 1,813                                             | 7,072                                                   | 25,144                                                       | 3.2                                  |
| 96-97 . . . . .        | 0.246493                                                  | 6,165                             | 1,520                                             | 5,405                                                   | 18,072                                                       | 2.9                                  |
| 97-98 . . . . .        | 0.266764                                                  | 4,645                             | 1,239                                             | 4,026                                                   | 12,667                                                       | 2.7                                  |
| 98-99 . . . . .        | 0.288065                                                  | 3,406                             | 981                                               | 2,916                                                   | 8,641                                                        | 2.5                                  |
| 99-100 . . . . .       | 0.310347                                                  | 2,425                             | 753                                               | 2,049                                                   | 5,725                                                        | 2.4                                  |
| 100 and over . . . . . | 1.00000                                                   | 1,672                             | 1,672                                             | 3,677                                                   | 3,677                                                        | 2.2                                  |

Table 5. Life table for white males: United States, 2006

| Age   | Probability<br>of dying<br>between<br>ages $x$ to $x + 1$ | Number<br>surviving to<br>age $x$ | Number<br>dying<br>between<br>ages $x$ to $x + 1$ | Person-years<br>lived<br>between<br>ages $x$ to $x + 1$ | Total<br>number of<br>person-years<br>lived above<br>age $x$ | Expectation<br>of life<br>at age $x$ |
|-------|-----------------------------------------------------------|-----------------------------------|---------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------|--------------------------------------|
|       | $q_x$                                                     | $l_x$                             | $d_x$                                             | $L_x$                                                   | $T_x$                                                        | $e_x$                                |
| 0-1   | 0.006119                                                  | 100,000                           | 612                                               | 99,462                                                  | 7,566,361                                                    | 75.7                                 |
| 1-2   | 0.000398                                                  | 99,388                            | 40                                                | 99,368                                                  | 7,466,899                                                    | 75.1                                 |
| 2-3   | 0.000296                                                  | 99,349                            | 29                                                | 99,334                                                  | 7,367,531                                                    | 74.2                                 |
| 3-4   | 0.000227                                                  | 99,319                            | 22                                                | 99,308                                                  | 7,268,197                                                    | 73.2                                 |
| 4-5   | 0.000182                                                  | 99,297                            | 18                                                | 99,288                                                  | 7,168,889                                                    | 72.2                                 |
| 5-6   | 0.000171                                                  | 99,279                            | 17                                                | 99,270                                                  | 7,069,601                                                    | 71.2                                 |
| 6-7   | 0.000161                                                  | 99,262                            | 16                                                | 99,254                                                  | 6,970,331                                                    | 70.2                                 |
| 7-8   | 0.000148                                                  | 99,246                            | 15                                                | 99,238                                                  | 6,871,078                                                    | 69.2                                 |
| 8-9   | 0.000127                                                  | 99,231                            | 13                                                | 99,225                                                  | 6,771,839                                                    | 68.2                                 |
| 9-10  | 0.000100                                                  | 99,218                            | 10                                                | 99,213                                                  | 6,672,615                                                    | 67.3                                 |
| 10-11 | 0.000079                                                  | 99,208                            | 8                                                 | 99,205                                                  | 6,573,401                                                    | 66.3                                 |
| 11-12 | 0.000082                                                  | 99,201                            | 8                                                 | 99,197                                                  | 6,474,197                                                    | 65.3                                 |
| 12-13 | 0.000132                                                  | 99,192                            | 13                                                | 99,186                                                  | 6,375,000                                                    | 64.3                                 |
| 13-14 | 0.000240                                                  | 99,179                            | 24                                                | 99,167                                                  | 6,275,814                                                    | 63.3                                 |
| 14-15 | 0.000390                                                  | 99,155                            | 39                                                | 99,136                                                  | 6,176,647                                                    | 62.3                                 |
| 15-16 | 0.000549                                                  | 99,117                            | 54                                                | 99,090                                                  | 6,077,511                                                    | 61.3                                 |
| 16-17 | 0.000699                                                  | 99,062                            | 69                                                | 99,028                                                  | 5,978,421                                                    | 60.4                                 |
| 17-18 | 0.000846                                                  | 98,993                            | 84                                                | 98,951                                                  | 5,879,393                                                    | 59.4                                 |
| 18-19 | 0.000986                                                  | 98,909                            | 98                                                | 98,861                                                  | 5,780,442                                                    | 58.4                                 |
| 19-20 | 0.001115                                                  | 98,812                            | 110                                               | 98,757                                                  | 5,681,581                                                    | 57.5                                 |
| 20-21 | 0.001250                                                  | 98,702                            | 123                                               | 98,640                                                  | 5,582,824                                                    | 56.6                                 |
| 21-22 | 0.001374                                                  | 98,578                            | 135                                               | 98,511                                                  | 5,484,184                                                    | 55.6                                 |
| 22-23 | 0.001449                                                  | 98,443                            | 143                                               | 98,372                                                  | 5,385,674                                                    | 54.7                                 |
| 23-24 | 0.001462                                                  | 98,300                            | 144                                               | 98,229                                                  | 5,287,302                                                    | 53.8                                 |
| 24-25 | 0.001428                                                  | 98,157                            | 140                                               | 98,087                                                  | 5,189,073                                                    | 52.9                                 |
| 25-26 | 0.001377                                                  | 98,017                            | 135                                               | 97,949                                                  | 5,090,987                                                    | 51.9                                 |
| 26-27 | 0.001335                                                  | 97,882                            | 131                                               | 97,816                                                  | 4,993,038                                                    | 51.0                                 |
| 27-28 | 0.001304                                                  | 97,751                            | 127                                               | 97,687                                                  | 4,895,221                                                    | 50.1                                 |
| 28-29 | 0.001294                                                  | 97,624                            | 126                                               | 97,560                                                  | 4,797,534                                                    | 49.1                                 |
| 29-30 | 0.001303                                                  | 97,497                            | 127                                               | 97,434                                                  | 4,699,974                                                    | 48.2                                 |
| 30-31 | 0.001322                                                  | 97,370                            | 129                                               | 97,306                                                  | 4,602,540                                                    | 47.3                                 |
| 31-32 | 0.001345                                                  | 97,241                            | 131                                               | 97,176                                                  | 4,505,234                                                    | 46.3                                 |
| 32-33 | 0.001382                                                  | 97,111                            | 134                                               | 97,044                                                  | 4,408,058                                                    | 45.4                                 |
| 33-34 | 0.001417                                                  | 96,976                            | 137                                               | 96,908                                                  | 4,311,015                                                    | 44.5                                 |
| 34-35 | 0.001469                                                  | 96,839                            | 142                                               | 96,768                                                  | 4,214,107                                                    | 43.5                                 |
| 35-36 | 0.001530                                                  | 96,697                            | 148                                               | 96,623                                                  | 4,117,339                                                    | 42.6                                 |
| 36-37 | 0.001610                                                  | 96,549                            | 155                                               | 96,471                                                  | 4,020,716                                                    | 41.6                                 |
| 37-38 | 0.001721                                                  | 96,393                            | 166                                               | 96,311                                                  | 3,924,245                                                    | 40.7                                 |
| 38-39 | 0.001868                                                  | 96,228                            | 180                                               | 96,138                                                  | 3,827,934                                                    | 39.8                                 |
| 39-40 | 0.002046                                                  | 96,048                            | 197                                               | 95,950                                                  | 3,731,796                                                    | 38.9                                 |
| 40-41 | 0.002241                                                  | 95,851                            | 215                                               | 95,744                                                  | 3,635,847                                                    | 37.9                                 |
| 41-42 | 0.002445                                                  | 95,637                            | 234                                               | 95,520                                                  | 3,540,103                                                    | 37.0                                 |
| 42-43 | 0.002670                                                  | 95,403                            | 255                                               | 95,275                                                  | 3,444,583                                                    | 36.1                                 |
| 43-44 | 0.002915                                                  | 95,148                            | 277                                               | 95,009                                                  | 3,349,308                                                    | 35.2                                 |
| 44-45 | 0.003177                                                  | 94,871                            | 301                                               | 94,720                                                  | 3,254,298                                                    | 34.3                                 |
| 45-46 | 0.003449                                                  | 94,569                            | 326                                               | 94,406                                                  | 3,159,578                                                    | 33.4                                 |
| 46-47 | 0.003735                                                  | 94,243                            | 352                                               | 94,067                                                  | 3,065,172                                                    | 32.5                                 |
| 47-48 | 0.004045                                                  | 93,891                            | 380                                               | 93,701                                                  | 2,971,105                                                    | 31.6                                 |
| 48-49 | 0.004393                                                  | 93,511                            | 411                                               | 93,306                                                  | 2,877,404                                                    | 30.8                                 |
| 49-50 | 0.004782                                                  | 93,101                            | 445                                               | 92,878                                                  | 2,784,098                                                    | 29.9                                 |
| 50-51 | 0.005211                                                  | 92,655                            | 483                                               | 92,414                                                  | 2,691,220                                                    | 29.0                                 |
| 51-52 | 0.005668                                                  | 92,173                            | 522                                               | 91,911                                                  | 2,598,806                                                    | 28.2                                 |
| 52-53 | 0.006137                                                  | 91,650                            | 562                                               | 91,369                                                  | 2,506,895                                                    | 27.4                                 |
| 53-54 | 0.006593                                                  | 91,088                            | 601                                               | 90,787                                                  | 2,415,526                                                    | 26.5                                 |
| 54-55 | 0.007037                                                  | 90,487                            | 637                                               | 90,169                                                  | 2,324,738                                                    | 25.7                                 |
| 55-56 | 0.007487                                                  | 89,850                            | 673                                               | 89,514                                                  | 2,234,569                                                    | 24.9                                 |
| 56-57 | 0.007974                                                  | 89,178                            | 711                                               | 88,822                                                  | 2,145,055                                                    | 24.1                                 |
| 57-58 | 0.008521                                                  | 88,467                            | 754                                               | 88,090                                                  | 2,056,233                                                    | 23.2                                 |
| 58-59 | 0.009179                                                  | 87,713                            | 805                                               | 87,310                                                  | 1,968,143                                                    | 22.4                                 |
| 59-60 | 0.009973                                                  | 86,908                            | 867                                               | 86,474                                                  | 1,880,833                                                    | 21.6                                 |
| 60-61 | 0.010930                                                  | 86,041                            | 940                                               | 85,571                                                  | 1,794,359                                                    | 20.9                                 |
| 61-62 | 0.012013                                                  | 85,100                            | 1,022                                             | 84,589                                                  | 1,708,788                                                    | 20.1                                 |
| 62-63 | 0.013165                                                  | 84,078                            | 1,107                                             | 83,525                                                  | 1,624,199                                                    | 19.3                                 |
| 63-64 | 0.014293                                                  | 82,971                            | 1,186                                             | 82,378                                                  | 1,540,674                                                    | 18.6                                 |
| 64-65 | 0.015396                                                  | 81,785                            | 1,259                                             | 81,156                                                  | 1,458,296                                                    | 17.8                                 |
| 65-66 | 0.016596                                                  | 80,526                            | 1,336                                             | 79,858                                                  | 1,377,140                                                    | 17.1                                 |
| 66-67 | 0.017847                                                  | 79,190                            | 1,413                                             | 78,483                                                  | 1,297,282                                                    | 16.4                                 |

**Table 5. Life table for white males: United States, 2006—Con.**

|                        | Probability<br>of dying<br>between<br>ages $x$ to $x + 1$ | Number<br>surviving to<br>age $x$ | Number<br>dying<br>between<br>ages $x$ to $x + 1$ | Person-years<br>lived<br>between<br>ages $x$ to $x + 1$ | Total<br>number of<br>person-years<br>lived above<br>age $x$ | Expectation<br>of life<br>at age $x$ |
|------------------------|-----------------------------------------------------------|-----------------------------------|---------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------|--------------------------------------|
| Age                    | $q_x$                                                     | $l_x$                             | $d_x$                                             | $L_x$                                                   | $T_x$                                                        | $e_x$                                |
| 67-68 . . . . .        | 0.019290                                                  | 77,777                            | 1,500                                             | 77,026                                                  | 1,218,799                                                    | 15.7                                 |
| 68-69 . . . . .        | 0.020954                                                  | 76,276                            | 1,598                                             | 75,477                                                  | 1,141,772                                                    | 15.0                                 |
| 69-70 . . . . .        | 0.022866                                                  | 74,678                            | 1,708                                             | 73,824                                                  | 1,066,295                                                    | 14.3                                 |
| 70-71 . . . . .        | 0.025004                                                  | 72,970                            | 1,825                                             | 72,058                                                  | 992,471                                                      | 13.6                                 |
| 71-72 . . . . .        | 0.027456                                                  | 71,146                            | 1,953                                             | 70,169                                                  | 920,413                                                      | 12.9                                 |
| 72-73 . . . . .        | 0.030320                                                  | 69,192                            | 2,098                                             | 68,143                                                  | 850,244                                                      | 12.3                                 |
| 73-74 . . . . .        | 0.033597                                                  | 67,095                            | 2,254                                             | 65,967                                                  | 782,101                                                      | 11.7                                 |
| 74-75 . . . . .        | 0.037249                                                  | 64,840                            | 2,415                                             | 63,633                                                  | 716,133                                                      | 11.0                                 |
| 75-76 . . . . .        | 0.041289                                                  | 62,425                            | 2,577                                             | 61,136                                                  | 652,501                                                      | 10.5                                 |
| 76-77 . . . . .        | 0.045637                                                  | 59,848                            | 2,731                                             | 58,482                                                  | 591,364                                                      | 9.9                                  |
| 77-78 . . . . .        | 0.050419                                                  | 57,116                            | 2,880                                             | 55,676                                                  | 532,882                                                      | 9.3                                  |
| 78-79 . . . . .        | 0.055672                                                  | 54,237                            | 3,019                                             | 52,727                                                  | 477,206                                                      | 8.8                                  |
| 79-80 . . . . .        | 0.061438                                                  | 51,217                            | 3,147                                             | 49,644                                                  | 424,479                                                      | 8.3                                  |
| 80-81 . . . . .        | 0.067757                                                  | 48,070                            | 3,257                                             | 46,442                                                  | 374,835                                                      | 7.8                                  |
| 81-82 . . . . .        | 0.074675                                                  | 44,813                            | 3,346                                             | 43,140                                                  | 328,393                                                      | 7.3                                  |
| 82-83 . . . . .        | 0.082238                                                  | 41,467                            | 3,410                                             | 39,762                                                  | 285,253                                                      | 6.9                                  |
| 83-84 . . . . .        | 0.090491                                                  | 38,057                            | 3,444                                             | 36,335                                                  | 245,491                                                      | 6.5                                  |
| 84-85 . . . . .        | 0.099482                                                  | 34,613                            | 3,443                                             | 32,891                                                  | 209,156                                                      | 6.0                                  |
| 85-86 . . . . .        | 0.109259                                                  | 31,170                            | 3,406                                             | 29,467                                                  | 176,265                                                      | 5.7                                  |
| 86-87 . . . . .        | 0.119870                                                  | 27,764                            | 3,328                                             | 26,100                                                  | 146,798                                                      | 5.3                                  |
| 87-88 . . . . .        | 0.131359                                                  | 24,436                            | 3,210                                             | 22,831                                                  | 120,698                                                      | 4.9                                  |
| 88-89 . . . . .        | 0.143769                                                  | 21,226                            | 3,052                                             | 19,700                                                  | 97,867                                                       | 4.6                                  |
| 89-90 . . . . .        | 0.157140                                                  | 18,174                            | 2,856                                             | 16,746                                                  | 78,167                                                       | 4.3                                  |
| 90-91 . . . . .        | 0.171505                                                  | 15,318                            | 2,627                                             | 14,005                                                  | 61,421                                                       | 4.0                                  |
| 91-92 . . . . .        | 0.186892                                                  | 12,691                            | 2,372                                             | 11,505                                                  | 47,416                                                       | 3.7                                  |
| 92-93 . . . . .        | 0.203321                                                  | 10,319                            | 2,098                                             | 9,270                                                   | 35,910                                                       | 3.5                                  |
| 93-94 . . . . .        | 0.220802                                                  | 8,221                             | 1,815                                             | 7,314                                                   | 26,640                                                       | 3.2                                  |
| 94-95 . . . . .        | 0.239334                                                  | 6,406                             | 1,533                                             | 5,639                                                   | 19,326                                                       | 3.0                                  |
| 95-96 . . . . .        | 0.258905                                                  | 4,873                             | 1,262                                             | 4,242                                                   | 13,687                                                       | 2.8                                  |
| 96-97 . . . . .        | 0.279489                                                  | 3,611                             | 1,009                                             | 3,107                                                   | 9,445                                                        | 2.6                                  |
| 97-98 . . . . .        | 0.301044                                                  | 2,602                             | 783                                               | 2,210                                                   | 6,338                                                        | 2.4                                  |
| 98-99 . . . . .        | 0.323515                                                  | 1,819                             | 588                                               | 1,524                                                   | 4,128                                                        | 2.3                                  |
| 99-100 . . . . .       | 0.346831                                                  | 1,230                             | 427                                               | 1,017                                                   | 2,604                                                        | 2.1                                  |
| 100 and over . . . . . | 1.00000                                                   | 804                               | 804                                               | 1,587                                                   | 1,587                                                        | 2.0                                  |

Table 6. Life table for white females: United States, 2006

| Age   | Probability<br>of dying<br>between<br>ages $x$ to $x + 1$ | Number<br>surviving to<br>age $x$ | Number<br>dying<br>between<br>ages $x$ to $x + 1$ | Person-years<br>lived<br>between<br>ages $x$ to $x + 1$ | Total<br>number of<br>person-years<br>lived above<br>age $x$ | Expectation<br>of life<br>at age $x$ |
|-------|-----------------------------------------------------------|-----------------------------------|---------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------|--------------------------------------|
|       | $q_x$                                                     | $l_x$                             | $d_x$                                             | $L_x$                                                   | $T_x$                                                        | $e_x$                                |
| 0-1   | 0.005007                                                  | 100,000                           | 501                                               | 99,560                                                  | 8,058,411                                                    | 80.6                                 |
| 1-2   | 0.000390                                                  | 99,499                            | 39                                                | 99,480                                                  | 7,958,851                                                    | 80.0                                 |
| 2-3   | 0.000234                                                  | 99,461                            | 23                                                | 99,449                                                  | 7,859,371                                                    | 79.0                                 |
| 3-4   | 0.000170                                                  | 99,437                            | 17                                                | 99,429                                                  | 7,759,922                                                    | 78.0                                 |
| 4-5   | 0.000148                                                  | 99,420                            | 15                                                | 99,413                                                  | 7,660,493                                                    | 77.1                                 |
| 5-6   | 0.000134                                                  | 99,406                            | 13                                                | 99,399                                                  | 7,561,080                                                    | 76.1                                 |
| 6-7   | 0.000124                                                  | 99,392                            | 12                                                | 99,386                                                  | 7,461,681                                                    | 75.1                                 |
| 7-8   | 0.000115                                                  | 99,380                            | 11                                                | 99,374                                                  | 7,362,295                                                    | 74.1                                 |
| 8-9   | 0.000104                                                  | 99,369                            | 10                                                | 99,363                                                  | 7,262,921                                                    | 73.1                                 |
| 9-10  | 0.000091                                                  | 99,358                            | 9                                                 | 99,354                                                  | 7,163,558                                                    | 72.1                                 |
| 10-11 | 0.000081                                                  | 99,349                            | 8                                                 | 99,345                                                  | 7,064,204                                                    | 71.1                                 |
| 11-12 | 0.000082                                                  | 99,341                            | 8                                                 | 99,337                                                  | 6,964,859                                                    | 70.1                                 |
| 12-13 | 0.000103                                                  | 99,333                            | 10                                                | 99,328                                                  | 6,865,522                                                    | 69.1                                 |
| 13-14 | 0.000147                                                  | 99,323                            | 15                                                | 99,315                                                  | 6,766,194                                                    | 68.1                                 |
| 14-15 | 0.000208                                                  | 99,308                            | 21                                                | 99,298                                                  | 6,666,878                                                    | 67.1                                 |
| 15-16 | 0.000276                                                  | 99,288                            | 27                                                | 99,274                                                  | 6,567,581                                                    | 66.1                                 |
| 16-17 | 0.000338                                                  | 99,260                            | 33                                                | 99,243                                                  | 6,468,307                                                    | 65.2                                 |
| 17-18 | 0.000386                                                  | 99,227                            | 38                                                | 99,208                                                  | 6,369,063                                                    | 64.2                                 |
| 18-19 | 0.000415                                                  | 99,188                            | 41                                                | 99,168                                                  | 6,269,856                                                    | 63.2                                 |
| 19-20 | 0.000429                                                  | 99,147                            | 43                                                | 99,126                                                  | 6,170,688                                                    | 62.2                                 |
| 20-21 | 0.000441                                                  | 99,105                            | 44                                                | 99,083                                                  | 6,071,562                                                    | 61.3                                 |
| 21-22 | 0.000456                                                  | 99,061                            | 45                                                | 99,038                                                  | 5,972,479                                                    | 60.3                                 |
| 22-23 | 0.000469                                                  | 99,016                            | 46                                                | 98,993                                                  | 5,873,441                                                    | 59.3                                 |
| 23-24 | 0.000479                                                  | 98,969                            | 47                                                | 98,946                                                  | 5,774,449                                                    | 58.3                                 |
| 24-25 | 0.000487                                                  | 98,922                            | 48                                                | 98,898                                                  | 5,675,503                                                    | 57.4                                 |
| 25-26 | 0.000497                                                  | 98,874                            | 49                                                | 98,849                                                  | 5,576,605                                                    | 56.4                                 |
| 26-27 | 0.000507                                                  | 98,825                            | 50                                                | 98,800                                                  | 5,477,756                                                    | 55.4                                 |
| 27-28 | 0.000519                                                  | 98,775                            | 51                                                | 98,749                                                  | 5,378,956                                                    | 54.5                                 |
| 28-29 | 0.000534                                                  | 98,723                            | 53                                                | 98,697                                                  | 5,280,207                                                    | 53.5                                 |
| 29-30 | 0.000553                                                  | 98,671                            | 55                                                | 98,643                                                  | 5,181,510                                                    | 52.5                                 |
| 30-31 | 0.000578                                                  | 98,616                            | 57                                                | 98,588                                                  | 5,082,867                                                    | 51.5                                 |
| 31-32 | 0.000611                                                  | 98,559                            | 60                                                | 98,529                                                  | 4,984,280                                                    | 50.6                                 |
| 32-33 | 0.000653                                                  | 98,499                            | 64                                                | 98,467                                                  | 4,885,751                                                    | 49.6                                 |
| 33-34 | 0.000699                                                  | 98,434                            | 69                                                | 98,400                                                  | 4,787,284                                                    | 48.6                                 |
| 34-35 | 0.000753                                                  | 98,366                            | 74                                                | 98,329                                                  | 4,688,884                                                    | 47.7                                 |
| 35-36 | 0.000811                                                  | 98,292                            | 80                                                | 98,252                                                  | 4,590,555                                                    | 46.7                                 |
| 36-37 | 0.000878                                                  | 98,212                            | 86                                                | 98,169                                                  | 4,492,303                                                    | 45.7                                 |
| 37-38 | 0.000960                                                  | 98,126                            | 94                                                | 98,079                                                  | 4,394,135                                                    | 44.8                                 |
| 38-39 | 0.001059                                                  | 98,031                            | 104                                               | 97,980                                                  | 4,296,056                                                    | 43.8                                 |
| 39-40 | 0.001174                                                  | 97,928                            | 115                                               | 97,870                                                  | 4,198,077                                                    | 42.9                                 |
| 40-41 | 0.001294                                                  | 97,813                            | 127                                               | 97,749                                                  | 4,100,206                                                    | 41.9                                 |
| 41-42 | 0.001419                                                  | 97,686                            | 139                                               | 97,617                                                  | 4,002,457                                                    | 41.0                                 |
| 42-43 | 0.001556                                                  | 97,548                            | 152                                               | 97,472                                                  | 3,904,840                                                    | 40.0                                 |
| 43-44 | 0.001706                                                  | 97,396                            | 166                                               | 97,313                                                  | 3,807,368                                                    | 39.1                                 |
| 44-45 | 0.001867                                                  | 97,230                            | 181                                               | 97,139                                                  | 3,710,056                                                    | 38.2                                 |
| 45-46 | 0.002037                                                  | 97,048                            | 198                                               | 96,949                                                  | 3,612,917                                                    | 37.2                                 |
| 46-47 | 0.002211                                                  | 96,850                            | 214                                               | 96,743                                                  | 3,515,967                                                    | 36.3                                 |
| 47-48 | 0.002388                                                  | 96,636                            | 231                                               | 96,521                                                  | 3,419,224                                                    | 35.4                                 |
| 48-49 | 0.002567                                                  | 96,406                            | 248                                               | 96,282                                                  | 3,322,703                                                    | 34.5                                 |
| 49-50 | 0.002759                                                  | 96,158                            | 265                                               | 96,025                                                  | 3,226,421                                                    | 33.6                                 |
| 50-51 | 0.002968                                                  | 95,893                            | 285                                               | 95,751                                                  | 3,130,396                                                    | 32.6                                 |
| 51-52 | 0.003203                                                  | 95,608                            | 306                                               | 95,455                                                  | 3,034,645                                                    | 31.7                                 |
| 52-53 | 0.003466                                                  | 95,302                            | 330                                               | 95,137                                                  | 2,939,190                                                    | 30.8                                 |
| 53-54 | 0.003754                                                  | 94,972                            | 357                                               | 94,793                                                  | 2,844,053                                                    | 29.9                                 |
| 54-55 | 0.004063                                                  | 94,615                            | 384                                               | 94,423                                                  | 2,749,260                                                    | 29.1                                 |
| 55-56 | 0.004386                                                  | 94,231                            | 413                                               | 94,024                                                  | 2,654,837                                                    | 28.2                                 |
| 56-57 | 0.004731                                                  | 93,817                            | 444                                               | 93,596                                                  | 2,560,813                                                    | 27.3                                 |
| 57-58 | 0.005124                                                  | 93,374                            | 478                                               | 93,134                                                  | 2,467,217                                                    | 26.4                                 |
| 58-59 | 0.005595                                                  | 92,895                            | 520                                               | 92,635                                                  | 2,374,083                                                    | 25.6                                 |
| 59-60 | 0.006162                                                  | 92,376                            | 569                                               | 92,091                                                  | 2,281,447                                                    | 24.7                                 |
| 60-61 | 0.006854                                                  | 91,806                            | 629                                               | 91,492                                                  | 2,189,357                                                    | 23.8                                 |
| 61-62 | 0.007637                                                  | 91,177                            | 696                                               | 90,829                                                  | 2,097,865                                                    | 23.0                                 |
| 62-63 | 0.008442                                                  | 90,481                            | 764                                               | 90,099                                                  | 2,007,036                                                    | 22.2                                 |
| 63-64 | 0.009192                                                  | 89,717                            | 825                                               | 89,305                                                  | 1,916,937                                                    | 21.4                                 |
| 64-65 | 0.009901                                                  | 88,892                            | 880                                               | 88,452                                                  | 1,827,632                                                    | 20.6                                 |
| 65-66 | 0.010676                                                  | 88,012                            | 940                                               | 87,542                                                  | 1,739,180                                                    | 19.8                                 |
| 66-67 | 0.011489                                                  | 87,073                            | 1,000                                             | 86,572                                                  | 1,651,637                                                    | 19.0                                 |

**Table 6. Life table for white females: United States, 2006—Con.**

|                        | Probability<br>of dying<br>between<br>ages $x$ to $x + 1$ | Number<br>surviving to<br>age $x$ | Number<br>dying<br>between<br>ages $x$ to $x + 1$ | Person-years<br>lived<br>between<br>ages $x$ to $x + 1$ | Total<br>number of<br>person-years<br>lived above<br>age $x$ | Expectation<br>of life<br>at age $x$ |
|------------------------|-----------------------------------------------------------|-----------------------------------|---------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------|--------------------------------------|
| Age                    | $q_x$                                                     | $l_x$                             | $d_x$                                             | $L_x$                                                   | $T_x$                                                        | $e_x$                                |
| 67-68 . . . . .        | 0.012467                                                  | 86,072                            | 1,073                                             | 85,536                                                  | 1,565,065                                                    | 18.2                                 |
| 68-69 . . . . .        | 0.013631                                                  | 84,999                            | 1,159                                             | 84,420                                                  | 1,479,529                                                    | 17.4                                 |
| 69-70 . . . . .        | 0.014990                                                  | 83,841                            | 1,257                                             | 83,212                                                  | 1,395,109                                                    | 16.6                                 |
| 70-71 . . . . .        | 0.016534                                                  | 82,584                            | 1,365                                             | 81,901                                                  | 1,311,897                                                    | 15.9                                 |
| 71-72 . . . . .        | 0.018297                                                  | 81,218                            | 1,486                                             | 80,475                                                  | 1,229,996                                                    | 15.1                                 |
| 72-73 . . . . .        | 0.020323                                                  | 79,732                            | 1,620                                             | 78,922                                                  | 1,149,521                                                    | 14.4                                 |
| 73-74 . . . . .        | 0.022634                                                  | 78,112                            | 1,768                                             | 77,228                                                  | 1,070,599                                                    | 13.7                                 |
| 74-75 . . . . .        | 0.025257                                                  | 76,344                            | 1,928                                             | 75,380                                                  | 993,371                                                      | 13.0                                 |
| 75-76 . . . . .        | 0.028246                                                  | 74,416                            | 2,102                                             | 73,365                                                  | 917,991                                                      | 12.3                                 |
| 76-77 . . . . .        | 0.031511                                                  | 72,314                            | 2,279                                             | 71,174                                                  | 844,626                                                      | 11.7                                 |
| 77-78 . . . . .        | 0.035139                                                  | 70,035                            | 2,461                                             | 68,805                                                  | 773,451                                                      | 11.0                                 |
| 78-79 . . . . .        | 0.039168                                                  | 67,574                            | 2,647                                             | 66,251                                                  | 704,647                                                      | 10.4                                 |
| 79-80 . . . . .        | 0.043638                                                  | 64,927                            | 2,833                                             | 63,511                                                  | 638,396                                                      | 9.8                                  |
| 80-81 . . . . .        | 0.048593                                                  | 62,094                            | 3,017                                             | 60,585                                                  | 574,885                                                      | 9.3                                  |
| 81-82 . . . . .        | 0.054078                                                  | 59,077                            | 3,195                                             | 57,479                                                  | 514,300                                                      | 8.7                                  |
| 82-83 . . . . .        | 0.060144                                                  | 55,882                            | 3,361                                             | 54,202                                                  | 456,821                                                      | 8.2                                  |
| 83-84 . . . . .        | 0.066841                                                  | 52,521                            | 3,511                                             | 50,766                                                  | 402,619                                                      | 7.7                                  |
| 84-85 . . . . .        | 0.074225                                                  | 49,010                            | 3,638                                             | 47,192                                                  | 351,853                                                      | 7.2                                  |
| 85-86 . . . . .        | 0.082354                                                  | 45,373                            | 3,737                                             | 43,504                                                  | 304,662                                                      | 6.7                                  |
| 86-87 . . . . .        | 0.091284                                                  | 41,636                            | 3,801                                             | 39,736                                                  | 261,157                                                      | 6.3                                  |
| 87-88 . . . . .        | 0.101077                                                  | 37,835                            | 3,824                                             | 35,923                                                  | 221,422                                                      | 5.9                                  |
| 88-89 . . . . .        | 0.111790                                                  | 34,011                            | 3,802                                             | 32,110                                                  | 185,499                                                      | 5.5                                  |
| 89-90 . . . . .        | 0.123483                                                  | 30,209                            | 3,730                                             | 28,344                                                  | 153,389                                                      | 5.1                                  |
| 90-91 . . . . .        | 0.136212                                                  | 26,479                            | 3,607                                             | 24,675                                                  | 125,045                                                      | 4.7                                  |
| 91-92 . . . . .        | 0.150028                                                  | 22,872                            | 3,431                                             | 21,156                                                  | 100,369                                                      | 4.4                                  |
| 92-93 . . . . .        | 0.164978                                                  | 19,441                            | 3,207                                             | 17,837                                                  | 79,213                                                       | 4.1                                  |
| 93-94 . . . . .        | 0.181100                                                  | 16,233                            | 2,940                                             | 14,763                                                  | 61,376                                                       | 3.8                                  |
| 94-95 . . . . .        | 0.198424                                                  | 13,293                            | 2,638                                             | 11,975                                                  | 46,613                                                       | 3.5                                  |
| 95-96 . . . . .        | 0.216965                                                  | 10,656                            | 2,312                                             | 9,500                                                   | 34,639                                                       | 3.3                                  |
| 96-97 . . . . .        | 0.236728                                                  | 8,344                             | 1,975                                             | 7,356                                                   | 25,139                                                       | 3.0                                  |
| 97-98 . . . . .        | 0.257698                                                  | 6,369                             | 1,641                                             | 5,548                                                   | 17,783                                                       | 2.8                                  |
| 98-99 . . . . .        | 0.279844                                                  | 4,727                             | 1,323                                             | 4,066                                                   | 12,235                                                       | 2.6                                  |
| 99-100 . . . . .       | 0.303117                                                  | 3,404                             | 1,032                                             | 2,888                                                   | 8,169                                                        | 2.4                                  |
| 100 and over . . . . . | 1.00000                                                   | 2,373                             | 2,373                                             | 5,280                                                   | 5,280                                                        | 2.2                                  |

Table 7. Life table for the black population: United States, 2006

| Age   | Probability<br>of dying<br>between<br>ages $x$ to $x + 1$ | Number<br>surviving to<br>age $x$ | Number<br>dying<br>between<br>ages $x$ to $x + 1$ | Person-years<br>lived<br>between<br>ages $x$ to $x + 1$ | Total<br>number of<br>person-years<br>lived above<br>age $x$ | Expectation<br>of life<br>at age $x$ |
|-------|-----------------------------------------------------------|-----------------------------------|---------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------|--------------------------------------|
|       | $q_x$                                                     | $l_x$                             | $d_x$                                             | $L_x$                                                   | $T_x$                                                        | $e_x$                                |
| 0-1   | 0.013373                                                  | 100,000                           | 1,337                                             | 98,818                                                  | 7,323,582                                                    | 73.2                                 |
| 1-2   | 0.000691                                                  | 98,663                            | 68                                                | 98,629                                                  | 7,224,764                                                    | 73.2                                 |
| 2-3   | 0.000473                                                  | 98,595                            | 47                                                | 98,571                                                  | 7,126,136                                                    | 72.3                                 |
| 3-4   | 0.000307                                                  | 98,548                            | 30                                                | 98,533                                                  | 7,027,565                                                    | 71.3                                 |
| 4-5   | 0.000260                                                  | 98,518                            | 26                                                | 98,505                                                  | 6,929,032                                                    | 70.3                                 |
| 5-6   | 0.000248                                                  | 98,492                            | 24                                                | 98,480                                                  | 6,830,527                                                    | 69.4                                 |
| 6-7   | 0.000225                                                  | 98,468                            | 22                                                | 98,457                                                  | 6,732,047                                                    | 68.4                                 |
| 7-8   | 0.000203                                                  | 98,445                            | 20                                                | 98,435                                                  | 6,633,591                                                    | 67.4                                 |
| 8-9   | 0.000176                                                  | 98,425                            | 17                                                | 98,417                                                  | 6,535,155                                                    | 66.4                                 |
| 9-10  | 0.000145                                                  | 98,408                            | 14                                                | 98,401                                                  | 6,436,738                                                    | 65.4                                 |
| 10-11 | 0.000122                                                  | 98,394                            | 12                                                | 98,388                                                  | 6,338,337                                                    | 64.4                                 |
| 11-12 | 0.000125                                                  | 98,382                            | 12                                                | 98,376                                                  | 6,239,949                                                    | 63.4                                 |
| 12-13 | 0.000172                                                  | 98,370                            | 17                                                | 98,361                                                  | 6,141,574                                                    | 62.4                                 |
| 13-14 | 0.000274                                                  | 98,353                            | 27                                                | 98,339                                                  | 6,043,212                                                    | 61.4                                 |
| 14-15 | 0.000417                                                  | 98,326                            | 41                                                | 98,305                                                  | 5,944,873                                                    | 60.5                                 |
| 15-16 | 0.000573                                                  | 98,285                            | 56                                                | 98,257                                                  | 5,846,568                                                    | 59.5                                 |
| 16-17 | 0.000721                                                  | 98,228                            | 71                                                | 98,193                                                  | 5,748,311                                                    | 58.5                                 |
| 17-18 | 0.000861                                                  | 98,158                            | 85                                                | 98,115                                                  | 5,650,118                                                    | 57.6                                 |
| 18-19 | 0.000987                                                  | 98,073                            | 97                                                | 98,025                                                  | 5,552,003                                                    | 56.6                                 |
| 19-20 | 0.001103                                                  | 97,976                            | 108                                               | 97,922                                                  | 5,453,978                                                    | 55.7                                 |
| 20-21 | 0.001228                                                  | 97,868                            | 120                                               | 97,808                                                  | 5,356,056                                                    | 54.7                                 |
| 21-22 | 0.001355                                                  | 97,748                            | 132                                               | 97,682                                                  | 5,258,248                                                    | 53.8                                 |
| 22-23 | 0.001458                                                  | 97,616                            | 142                                               | 97,544                                                  | 5,160,566                                                    | 52.9                                 |
| 23-24 | 0.001520                                                  | 97,473                            | 148                                               | 97,399                                                  | 5,063,021                                                    | 51.9                                 |
| 24-25 | 0.001552                                                  | 97,325                            | 151                                               | 97,250                                                  | 4,965,622                                                    | 51.0                                 |
| 25-26 | 0.001574                                                  | 97,174                            | 153                                               | 97,098                                                  | 4,868,373                                                    | 50.1                                 |
| 26-27 | 0.001602                                                  | 97,021                            | 155                                               | 96,943                                                  | 4,771,275                                                    | 49.2                                 |
| 27-28 | 0.001632                                                  | 96,866                            | 158                                               | 96,787                                                  | 4,674,332                                                    | 48.3                                 |
| 28-29 | 0.001670                                                  | 96,708                            | 162                                               | 96,627                                                  | 4,577,545                                                    | 47.3                                 |
| 29-30 | 0.001719                                                  | 96,546                            | 166                                               | 96,463                                                  | 4,480,918                                                    | 46.4                                 |
| 30-31 | 0.001776                                                  | 96,380                            | 171                                               | 96,294                                                  | 4,384,455                                                    | 45.5                                 |
| 31-32 | 0.001843                                                  | 96,209                            | 177                                               | 96,120                                                  | 4,288,161                                                    | 44.6                                 |
| 32-33 | 0.001941                                                  | 96,032                            | 186                                               | 95,938                                                  | 4,192,040                                                    | 43.7                                 |
| 33-34 | 0.002004                                                  | 95,845                            | 192                                               | 95,749                                                  | 4,096,102                                                    | 42.7                                 |
| 34-35 | 0.002099                                                  | 95,653                            | 201                                               | 95,553                                                  | 4,000,353                                                    | 41.8                                 |
| 35-36 | 0.002205                                                  | 95,452                            | 210                                               | 95,347                                                  | 3,904,800                                                    | 40.9                                 |
| 36-37 | 0.002330                                                  | 95,242                            | 222                                               | 95,131                                                  | 3,809,453                                                    | 40.0                                 |
| 37-38 | 0.002485                                                  | 95,020                            | 236                                               | 94,902                                                  | 3,714,322                                                    | 39.1                                 |
| 38-39 | 0.002675                                                  | 94,784                            | 254                                               | 94,657                                                  | 3,619,420                                                    | 38.2                                 |
| 39-40 | 0.002897                                                  | 94,530                            | 274                                               | 94,393                                                  | 3,524,763                                                    | 37.3                                 |
| 40-41 | 0.003132                                                  | 94,256                            | 295                                               | 94,109                                                  | 3,430,370                                                    | 36.4                                 |
| 41-42 | 0.003384                                                  | 93,961                            | 318                                               | 93,802                                                  | 3,336,261                                                    | 35.5                                 |
| 42-43 | 0.003676                                                  | 93,643                            | 344                                               | 93,471                                                  | 3,242,459                                                    | 34.6                                 |
| 43-44 | 0.004018                                                  | 93,299                            | 375                                               | 93,112                                                  | 3,148,988                                                    | 33.8                                 |
| 44-45 | 0.004404                                                  | 92,924                            | 409                                               | 92,719                                                  | 3,055,877                                                    | 32.9                                 |
| 45-46 | 0.004808                                                  | 92,515                            | 445                                               | 92,292                                                  | 2,963,157                                                    | 32.0                                 |
| 46-47 | 0.005229                                                  | 92,070                            | 481                                               | 91,829                                                  | 2,870,865                                                    | 31.2                                 |
| 47-48 | 0.005701                                                  | 91,589                            | 522                                               | 91,328                                                  | 2,779,036                                                    | 30.3                                 |
| 48-49 | 0.006245                                                  | 91,066                            | 569                                               | 90,782                                                  | 2,687,708                                                    | 29.5                                 |
| 49-50 | 0.006859                                                  | 90,498                            | 621                                               | 90,187                                                  | 2,596,926                                                    | 28.7                                 |
| 50-51 | 0.007544                                                  | 89,877                            | 678                                               | 89,538                                                  | 2,506,738                                                    | 27.9                                 |
| 51-52 | 0.008268                                                  | 89,199                            | 737                                               | 88,830                                                  | 2,417,200                                                    | 27.1                                 |
| 52-53 | 0.008987                                                  | 88,462                            | 795                                               | 88,064                                                  | 2,328,370                                                    | 26.3                                 |
| 53-54 | 0.009651                                                  | 87,667                            | 846                                               | 87,244                                                  | 2,240,306                                                    | 25.6                                 |
| 54-55 | 0.010264                                                  | 86,821                            | 891                                               | 86,375                                                  | 2,153,062                                                    | 24.8                                 |
| 55-56 | 0.010887                                                  | 85,930                            | 936                                               | 85,462                                                  | 2,066,687                                                    | 24.1                                 |
| 56-57 | 0.011559                                                  | 84,994                            | 982                                               | 84,503                                                  | 1,981,225                                                    | 23.3                                 |
| 57-58 | 0.012265                                                  | 84,012                            | 1,030                                             | 83,496                                                  | 1,896,723                                                    | 22.6                                 |
| 58-59 | 0.013049                                                  | 82,981                            | 1,083                                             | 82,440                                                  | 1,813,226                                                    | 21.9                                 |
| 59-60 | 0.013954                                                  | 81,898                            | 1,143                                             | 81,327                                                  | 1,730,786                                                    | 21.1                                 |
| 60-61 | 0.015026                                                  | 80,756                            | 1,213                                             | 80,149                                                  | 1,649,460                                                    | 20.4                                 |
| 61-62 | 0.016256                                                  | 79,542                            | 1,293                                             | 78,896                                                  | 1,569,311                                                    | 19.7                                 |
| 62-63 | 0.017576                                                  | 78,249                            | 1,375                                             | 77,561                                                  | 1,490,415                                                    | 19.0                                 |
| 63-64 | 0.018842                                                  | 76,874                            | 1,448                                             | 76,150                                                  | 1,412,854                                                    | 18.4                                 |
| 64-65 | 0.020003                                                  | 75,425                            | 1,509                                             | 74,671                                                  | 1,336,704                                                    | 17.7                                 |
| 65-66 | 0.021135                                                  | 73,917                            | 1,562                                             | 73,135                                                  | 1,262,033                                                    | 17.1                                 |
| 66-67 | 0.022261                                                  | 72,354                            | 1,611                                             | 71,549                                                  | 1,188,898                                                    | 16.4                                 |

**Table 7. Life table for the black population: United States, 2006—Con.**

|                        | Probability<br>of dying<br>between<br>ages $x$ to $x + 1$ | Number<br>surviving to<br>age $x$ | Number<br>dying<br>between<br>ages $x$ to $x + 1$ | Person-years<br>lived<br>between<br>ages $x$ to $x + 1$ | Total<br>number of<br>person-years<br>lived above<br>age $x$ | Expectation<br>of life<br>at age $x$ |
|------------------------|-----------------------------------------------------------|-----------------------------------|---------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------|--------------------------------------|
| Age                    | $q_x$                                                     | $l_x$                             | $d_x$                                             | $L_x$                                                   | $T_x$                                                        | $e_x$                                |
| 67-68 . . . . .        | 0.023598                                                  | 70,744                            | 1,669                                             | 69,909                                                  | 1,117,349                                                    | 15.8                                 |
| 68-69 . . . . .        | 0.025217                                                  | 69,074                            | 1,742                                             | 68,203                                                  | 1,047,440                                                    | 15.2                                 |
| 69-70 . . . . .        | 0.027104                                                  | 67,332                            | 1,825                                             | 66,420                                                  | 979,237                                                      | 14.5                                 |
| 70-71 . . . . .        | 0.029180                                                  | 65,507                            | 1,912                                             | 64,552                                                  | 912,817                                                      | 13.9                                 |
| 71-72 . . . . .        | 0.031457                                                  | 63,596                            | 2,001                                             | 62,596                                                  | 848,265                                                      | 13.3                                 |
| 72-73 . . . . .        | 0.034032                                                  | 61,595                            | 2,096                                             | 60,547                                                  | 785,669                                                      | 12.8                                 |
| 73-74 . . . . .        | 0.036934                                                  | 59,499                            | 2,198                                             | 58,400                                                  | 725,122                                                      | 12.2                                 |
| 74-75 . . . . .        | 0.040159                                                  | 57,302                            | 2,301                                             | 56,151                                                  | 666,722                                                      | 11.6                                 |
| 75-76 . . . . .        | 0.043698                                                  | 55,000                            | 2,403                                             | 53,799                                                  | 610,571                                                      | 11.1                                 |
| 76-77 . . . . .        | 0.047288                                                  | 52,597                            | 2,487                                             | 51,353                                                  | 556,772                                                      | 10.6                                 |
| 77-78 . . . . .        | 0.051158                                                  | 50,110                            | 2,564                                             | 48,828                                                  | 505,418                                                      | 10.1                                 |
| 78-79 . . . . .        | 0.055326                                                  | 47,546                            | 2,631                                             | 46,231                                                  | 456,590                                                      | 9.6                                  |
| 79-80 . . . . .        | 0.059812                                                  | 44,916                            | 2,687                                             | 43,573                                                  | 410,359                                                      | 9.1                                  |
| 80-81 . . . . .        | 0.064637                                                  | 42,229                            | 2,730                                             | 40,865                                                  | 366,786                                                      | 8.7                                  |
| 81-82 . . . . .        | 0.069823                                                  | 39,500                            | 2,758                                             | 38,121                                                  | 325,922                                                      | 8.3                                  |
| 82-83 . . . . .        | 0.075390                                                  | 36,742                            | 2,770                                             | 35,357                                                  | 287,801                                                      | 7.8                                  |
| 83-84 . . . . .        | 0.081363                                                  | 33,972                            | 2,764                                             | 32,590                                                  | 252,444                                                      | 7.4                                  |
| 84-85 . . . . .        | 0.087765                                                  | 31,208                            | 2,739                                             | 29,838                                                  | 219,855                                                      | 7.0                                  |
| 85-86 . . . . .        | 0.094618                                                  | 28,469                            | 2,694                                             | 27,122                                                  | 190,016                                                      | 6.7                                  |
| 86-87 . . . . .        | 0.101946                                                  | 25,775                            | 2,628                                             | 24,461                                                  | 162,894                                                      | 6.3                                  |
| 87-88 . . . . .        | 0.109774                                                  | 23,147                            | 2,541                                             | 21,877                                                  | 138,433                                                      | 6.0                                  |
| 88-89 . . . . .        | 0.118123                                                  | 20,606                            | 2,434                                             | 19,389                                                  | 116,556                                                      | 5.7                                  |
| 89-90 . . . . .        | 0.127017                                                  | 18,172                            | 2,308                                             | 17,018                                                  | 97,167                                                       | 5.3                                  |
| 90-91 . . . . .        | 0.136476                                                  | 15,864                            | 2,165                                             | 14,782                                                  | 80,148                                                       | 5.1                                  |
| 91-92 . . . . .        | 0.146522                                                  | 13,699                            | 2,007                                             | 12,695                                                  | 65,367                                                       | 4.8                                  |
| 92-93 . . . . .        | 0.157173                                                  | 11,692                            | 1,838                                             | 10,773                                                  | 52,671                                                       | 4.5                                  |
| 93-94 . . . . .        | 0.168445                                                  | 9,854                             | 1,660                                             | 9,024                                                   | 41,898                                                       | 4.3                                  |
| 94-95 . . . . .        | 0.180352                                                  | 8,194                             | 1,478                                             | 7,455                                                   | 32,874                                                       | 4.0                                  |
| 95-96 . . . . .        | 0.192906                                                  | 6,716                             | 1,296                                             | 6,069                                                   | 25,419                                                       | 3.8                                  |
| 96-97 . . . . .        | 0.206114                                                  | 5,421                             | 1,117                                             | 4,862                                                   | 19,350                                                       | 3.6                                  |
| 97-98 . . . . .        | 0.219980                                                  | 4,304                             | 947                                               | 3,830                                                   | 14,488                                                       | 3.4                                  |
| 98-99 . . . . .        | 0.234504                                                  | 3,357                             | 787                                               | 2,963                                                   | 10,658                                                       | 3.2                                  |
| 99-100 . . . . .       | 0.249679                                                  | 2,570                             | 642                                               | 2,249                                                   | 7,694                                                        | 3.0                                  |
| 100 and over . . . . . | 1.00000                                                   | 1,928                             | 1,928                                             | 5,445                                                   | 5,445                                                        | 2.8                                  |

Table 8. Life table for black males: United States, 2006

|       | Probability<br>of dying<br>between<br>ages $x$ to $x + 1$ | Number<br>surviving to<br>age $x$ | Number<br>dying<br>between<br>ages $x$ to $x + 1$ | Person-years<br>lived<br>between<br>ages $x$ to $x + 1$ | Total<br>number of<br>person-years<br>lived above<br>age $x$ | Expectation<br>of life<br>at age $x$ |
|-------|-----------------------------------------------------------|-----------------------------------|---------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------|--------------------------------------|
| Age   | $q_x$                                                     | $l_x$                             | $d_x$                                             | $L_x$                                                   | $T_x$                                                        | $e_x$                                |
| 0-1   | 0.014477                                                  | 100,000                           | 1,448                                             | 98,722                                                  | 6,966,719                                                    | 69.7                                 |
| 1-2   | 0.000772                                                  | 98,552                            | 76                                                | 98,514                                                  | 6,867,998                                                    | 69.7                                 |
| 2-3   | 0.000465                                                  | 98,476                            | 46                                                | 98,453                                                  | 6,769,483                                                    | 68.7                                 |
| 3-4   | 0.000372                                                  | 98,430                            | 37                                                | 98,412                                                  | 6,671,030                                                    | 67.8                                 |
| 4-5   | 0.000273                                                  | 98,394                            | 27                                                | 98,380                                                  | 6,572,618                                                    | 66.8                                 |
| 5-6   | 0.000276                                                  | 98,367                            | 27                                                | 98,353                                                  | 6,474,237                                                    | 65.8                                 |
| 6-7   | 0.000265                                                  | 98,340                            | 26                                                | 98,327                                                  | 6,375,884                                                    | 64.8                                 |
| 7-8   | 0.000246                                                  | 98,314                            | 24                                                | 98,302                                                  | 6,277,557                                                    | 63.9                                 |
| 8-9   | 0.000207                                                  | 98,290                            | 20                                                | 98,279                                                  | 6,179,255                                                    | 62.9                                 |
| 9-10  | 0.000153                                                  | 98,269                            | 15                                                | 98,262                                                  | 6,080,976                                                    | 61.9                                 |
| 10-11 | 0.000106                                                  | 98,254                            | 10                                                | 98,249                                                  | 5,982,714                                                    | 60.9                                 |
| 11-12 | 0.000100                                                  | 98,244                            | 10                                                | 98,239                                                  | 5,884,465                                                    | 59.9                                 |
| 12-13 | 0.000174                                                  | 98,234                            | 17                                                | 98,225                                                  | 5,786,226                                                    | 58.9                                 |
| 13-14 | 0.000348                                                  | 98,217                            | 34                                                | 98,200                                                  | 5,688,001                                                    | 57.9                                 |
| 14-15 | 0.000592                                                  | 98,183                            | 58                                                | 98,154                                                  | 5,589,801                                                    | 56.9                                 |
| 15-16 | 0.000860                                                  | 98,125                            | 84                                                | 98,083                                                  | 5,491,647                                                    | 56.0                                 |
| 16-17 | 0.001110                                                  | 98,040                            | 109                                               | 97,986                                                  | 5,393,565                                                    | 55.0                                 |
| 17-18 | 0.001339                                                  | 97,932                            | 131                                               | 97,866                                                  | 5,295,579                                                    | 54.1                                 |
| 18-19 | 0.001535                                                  | 97,800                            | 150                                               | 97,725                                                  | 5,197,713                                                    | 53.1                                 |
| 19-20 | 0.001706                                                  | 97,650                            | 167                                               | 97,567                                                  | 5,099,987                                                    | 52.2                                 |
| 20-21 | 0.001885                                                  | 97,484                            | 184                                               | 97,392                                                  | 5,002,420                                                    | 51.3                                 |
| 21-22 | 0.002068                                                  | 97,300                            | 201                                               | 97,199                                                  | 4,905,029                                                    | 50.4                                 |
| 22-23 | 0.002211                                                  | 97,099                            | 215                                               | 96,991                                                  | 4,807,829                                                    | 49.5                                 |
| 23-24 | 0.002297                                                  | 96,884                            | 223                                               | 96,773                                                  | 4,710,838                                                    | 48.6                                 |
| 24-25 | 0.002337                                                  | 96,661                            | 226                                               | 96,548                                                  | 4,614,065                                                    | 47.7                                 |
| 25-26 | 0.002360                                                  | 96,435                            | 228                                               | 96,322                                                  | 4,517,517                                                    | 46.8                                 |
| 26-27 | 0.002386                                                  | 96,208                            | 230                                               | 96,093                                                  | 4,421,195                                                    | 46.0                                 |
| 27-28 | 0.002412                                                  | 95,978                            | 231                                               | 95,863                                                  | 4,325,102                                                    | 45.1                                 |
| 28-29 | 0.002447                                                  | 95,747                            | 234                                               | 95,630                                                  | 4,229,239                                                    | 44.2                                 |
| 29-30 | 0.002493                                                  | 95,513                            | 238                                               | 95,394                                                  | 4,133,609                                                    | 43.3                                 |
| 30-31 | 0.002546                                                  | 95,274                            | 243                                               | 95,153                                                  | 4,038,216                                                    | 42.4                                 |
| 31-32 | 0.002604                                                  | 95,032                            | 247                                               | 94,908                                                  | 3,943,063                                                    | 41.5                                 |
| 32-33 | 0.002720                                                  | 94,784                            | 258                                               | 94,656                                                  | 3,848,155                                                    | 40.6                                 |
| 33-34 | 0.002743                                                  | 94,527                            | 259                                               | 94,397                                                  | 3,753,499                                                    | 39.7                                 |
| 34-35 | 0.002827                                                  | 94,267                            | 266                                               | 94,134                                                  | 3,659,102                                                    | 38.8                                 |
| 35-36 | 0.002925                                                  | 94,001                            | 275                                               | 93,863                                                  | 3,564,968                                                    | 37.9                                 |
| 36-37 | 0.003047                                                  | 93,726                            | 286                                               | 93,583                                                  | 3,471,105                                                    | 37.0                                 |
| 37-38 | 0.003201                                                  | 93,440                            | 299                                               | 93,291                                                  | 3,377,521                                                    | 36.1                                 |
| 38-39 | 0.003394                                                  | 93,141                            | 316                                               | 92,983                                                  | 3,284,231                                                    | 35.3                                 |
| 39-40 | 0.003625                                                  | 92,825                            | 336                                               | 92,657                                                  | 3,191,247                                                    | 34.4                                 |
| 40-41 | 0.003875                                                  | 92,489                            | 358                                               | 92,310                                                  | 3,098,591                                                    | 33.5                                 |
| 41-42 | 0.004155                                                  | 92,130                            | 383                                               | 91,939                                                  | 3,006,281                                                    | 32.6                                 |
| 42-43 | 0.004493                                                  | 91,748                            | 412                                               | 91,541                                                  | 2,914,342                                                    | 31.8                                 |
| 43-44 | 0.004904                                                  | 91,335                            | 448                                               | 91,111                                                  | 2,822,801                                                    | 30.9                                 |
| 44-45 | 0.005381                                                  | 90,887                            | 489                                               | 90,643                                                  | 2,731,689                                                    | 30.1                                 |
| 45-46 | 0.005879                                                  | 90,398                            | 531                                               | 90,133                                                  | 2,641,046                                                    | 29.2                                 |
| 46-47 | 0.006407                                                  | 89,867                            | 576                                               | 89,579                                                  | 2,550,914                                                    | 28.4                                 |
| 47-48 | 0.007035                                                  | 89,291                            | 628                                               | 88,977                                                  | 2,461,335                                                    | 27.6                                 |
| 48-49 | 0.007801                                                  | 88,663                            | 692                                               | 88,317                                                  | 2,372,358                                                    | 26.8                                 |
| 49-50 | 0.008699                                                  | 87,971                            | 765                                               | 87,589                                                  | 2,284,040                                                    | 26.0                                 |
| 50-51 | 0.009717                                                  | 87,206                            | 847                                               | 86,782                                                  | 2,196,452                                                    | 25.2                                 |
| 51-52 | 0.010787                                                  | 86,359                            | 932                                               | 85,893                                                  | 2,109,669                                                    | 24.4                                 |
| 52-53 | 0.011829                                                  | 85,427                            | 1,010                                             | 84,922                                                  | 2,023,776                                                    | 23.7                                 |
| 53-54 | 0.012747                                                  | 84,417                            | 1,076                                             | 83,879                                                  | 1,938,854                                                    | 23.0                                 |
| 54-55 | 0.013552                                                  | 83,341                            | 1,129                                             | 82,776                                                  | 1,854,975                                                    | 22.3                                 |
| 55-56 | 0.014354                                                  | 82,211                            | 1,180                                             | 81,621                                                  | 1,772,199                                                    | 21.6                                 |
| 56-57 | 0.015227                                                  | 81,031                            | 1,234                                             | 80,414                                                  | 1,690,578                                                    | 20.9                                 |
| 57-58 | 0.016141                                                  | 79,797                            | 1,288                                             | 79,153                                                  | 1,610,164                                                    | 20.2                                 |
| 58-59 | 0.017164                                                  | 78,509                            | 1,348                                             | 77,836                                                  | 1,531,010                                                    | 19.5                                 |
| 59-60 | 0.018354                                                  | 77,162                            | 1,416                                             | 76,454                                                  | 1,453,174                                                    | 18.8                                 |
| 60-61 | 0.019768                                                  | 75,746                            | 1,497                                             | 74,997                                                  | 1,376,721                                                    | 18.2                                 |
| 61-62 | 0.021384                                                  | 74,248                            | 1,588                                             | 73,454                                                  | 1,301,724                                                    | 17.5                                 |
| 62-63 | 0.023108                                                  | 72,661                            | 1,679                                             | 71,821                                                  | 1,228,269                                                    | 16.9                                 |
| 63-64 | 0.024730                                                  | 70,982                            | 1,755                                             | 70,104                                                  | 1,156,448                                                    | 16.3                                 |
| 64-65 | 0.026175                                                  | 69,226                            | 1,812                                             | 68,320                                                  | 1,086,344                                                    | 15.7                                 |
| 65-66 | 0.027540                                                  | 67,414                            | 1,857                                             | 66,486                                                  | 1,018,024                                                    | 15.1                                 |
| 66-67 | 0.029032                                                  | 65,558                            | 1,903                                             | 64,606                                                  | 951,538                                                      | 14.5                                 |

**Table 8. Life table for black males: United States, 2006—Con.**

|                        | Probability<br>of dying<br>between<br>ages $x$ to $x + 1$ | Number<br>surviving to<br>age $x$ | Number<br>dying<br>between<br>ages $x$ to $x + 1$ | Person-years<br>lived<br>between<br>ages $x$ to $x + 1$ | Total<br>number of<br>person-years<br>lived above<br>age $x$ | Expectation<br>of life<br>at age $x$ |
|------------------------|-----------------------------------------------------------|-----------------------------------|---------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------|--------------------------------------|
| Age                    | $q_x$                                                     | $l_x$                             | $d_x$                                             | $L_x$                                                   | $T_x$                                                        | $e_x$                                |
| 67-68 . . . . .        | 0.030825                                                  | 63,654                            | 1,962                                             | 62,673                                                  | 886,932                                                      | 13.9                                 |
| 68-69 . . . . .        | 0.033020                                                  | 61,692                            | 2,037                                             | 60,674                                                  | 824,259                                                      | 13.4                                 |
| 69-70 . . . . .        | 0.035563                                                  | 59,655                            | 2,122                                             | 58,594                                                  | 763,585                                                      | 12.8                                 |
| 70-71 . . . . .        | 0.038306                                                  | 57,534                            | 2,204                                             | 56,432                                                  | 704,991                                                      | 12.3                                 |
| 71-72 . . . . .        | 0.041232                                                  | 55,330                            | 2,281                                             | 54,189                                                  | 648,560                                                      | 11.7                                 |
| 72-73 . . . . .        | 0.044477                                                  | 53,048                            | 2,359                                             | 51,869                                                  | 594,371                                                      | 11.2                                 |
| 73-74 . . . . .        | 0.048071                                                  | 50,689                            | 2,437                                             | 49,471                                                  | 542,502                                                      | 10.7                                 |
| 74-75 . . . . .        | 0.051996                                                  | 48,252                            | 2,509                                             | 46,998                                                  | 493,031                                                      | 10.2                                 |
| 75-76 . . . . .        | 0.056220                                                  | 45,743                            | 2,572                                             | 44,457                                                  | 446,034                                                      | 9.8                                  |
| 76-77 . . . . .        | 0.060431                                                  | 43,172                            | 2,609                                             | 41,867                                                  | 401,576                                                      | 9.3                                  |
| 77-78 . . . . .        | 0.064935                                                  | 40,563                            | 2,634                                             | 39,246                                                  | 359,709                                                      | 8.9                                  |
| 78-79 . . . . .        | 0.069751                                                  | 37,929                            | 2,646                                             | 36,606                                                  | 320,463                                                      | 8.4                                  |
| 79-80 . . . . .        | 0.074894                                                  | 35,283                            | 2,643                                             | 33,962                                                  | 283,857                                                      | 8.0                                  |
| 80-81 . . . . .        | 0.080384                                                  | 32,641                            | 2,624                                             | 31,329                                                  | 249,895                                                      | 7.7                                  |
| 81-82 . . . . .        | 0.086240                                                  | 30,017                            | 2,589                                             | 28,723                                                  | 218,566                                                      | 7.3                                  |
| 82-83 . . . . .        | 0.092478                                                  | 27,428                            | 2,537                                             | 26,160                                                  | 189,844                                                      | 6.9                                  |
| 83-84 . . . . .        | 0.099119                                                  | 24,892                            | 2,467                                             | 23,658                                                  | 163,684                                                      | 6.6                                  |
| 84-85 . . . . .        | 0.106182                                                  | 22,424                            | 2,381                                             | 21,234                                                  | 140,026                                                      | 6.2                                  |
| 85-86 . . . . .        | 0.113684                                                  | 20,043                            | 2,279                                             | 18,904                                                  | 118,792                                                      | 5.9                                  |
| 86-87 . . . . .        | 0.121643                                                  | 17,765                            | 2,161                                             | 16,684                                                  | 99,888                                                       | 5.6                                  |
| 87-88 . . . . .        | 0.130079                                                  | 15,604                            | 2,030                                             | 14,589                                                  | 83,203                                                       | 5.3                                  |
| 88-89 . . . . .        | 0.139006                                                  | 13,574                            | 1,887                                             | 12,631                                                  | 68,614                                                       | 5.1                                  |
| 89-90 . . . . .        | 0.148442                                                  | 11,687                            | 1,735                                             | 10,820                                                  | 55,984                                                       | 4.8                                  |
| 90-91 . . . . .        | 0.158401                                                  | 9,952                             | 1,576                                             | 9,164                                                   | 45,164                                                       | 4.5                                  |
| 91-92 . . . . .        | 0.168895                                                  | 8,376                             | 1,415                                             | 7,669                                                   | 36,000                                                       | 4.3                                  |
| 92-93 . . . . .        | 0.179936                                                  | 6,961                             | 1,253                                             | 6,335                                                   | 28,331                                                       | 4.1                                  |
| 93-94 . . . . .        | 0.191532                                                  | 5,709                             | 1,093                                             | 5,162                                                   | 21,996                                                       | 3.9                                  |
| 94-95 . . . . .        | 0.203690                                                  | 4,615                             | 940                                               | 4,145                                                   | 16,834                                                       | 3.6                                  |
| 95-96 . . . . .        | 0.216413                                                  | 3,675                             | 795                                               | 3,278                                                   | 12,689                                                       | 3.5                                  |
| 96-97 . . . . .        | 0.229701                                                  | 2,880                             | 662                                               | 2,549                                                   | 9,411                                                        | 3.3                                  |
| 97-98 . . . . .        | 0.243552                                                  | 2,218                             | 540                                               | 1,948                                                   | 6,862                                                        | 3.1                                  |
| 98-99 . . . . .        | 0.257959                                                  | 1,678                             | 433                                               | 1,462                                                   | 4,914                                                        | 2.9                                  |
| 99-100 . . . . .       | 0.272910                                                  | 1,245                             | 340                                               | 1,075                                                   | 3,453                                                        | 2.8                                  |
| 100 and over . . . . . | 1.00000                                                   | 905                               | 905                                               | 2,377                                                   | 2,377                                                        | 2.6                                  |

Table 9. Life table for black females: United States, 2006

| Age   | Probability<br>of dying<br>between<br>ages $x$ to $x + 1$ | Number<br>surviving to<br>age $x$ | Number<br>dying<br>between<br>ages $x$ to $x + 1$ | Person-years<br>lived<br>between<br>ages $x$ to $x + 1$ | Total<br>number of<br>person-years<br>lived above<br>age $x$ | Expectation<br>of life<br>at age $x$ |
|-------|-----------------------------------------------------------|-----------------------------------|---------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------|--------------------------------------|
|       | $q_x$                                                     | $l_x$                             | $d_x$                                             | $L_x$                                                   | $T_x$                                                        | $e_x$                                |
| 0-1   | 0.012227                                                  | 100,000                           | 1,223                                             | 98,917                                                  | 7,653,214                                                    | 76.5                                 |
| 1-2   | 0.000606                                                  | 98,777                            | 60                                                | 98,747                                                  | 7,554,297                                                    | 76.5                                 |
| 2-3   | 0.000482                                                  | 98,717                            | 48                                                | 98,694                                                  | 7,455,549                                                    | 75.5                                 |
| 3-4   | 0.000240                                                  | 98,670                            | 24                                                | 98,658                                                  | 7,356,856                                                    | 74.6                                 |
| 4-5   | 0.000247                                                  | 98,646                            | 24                                                | 98,634                                                  | 7,258,198                                                    | 73.6                                 |
| 5-6   | 0.000218                                                  | 98,622                            | 21                                                | 98,611                                                  | 7,159,564                                                    | 72.6                                 |
| 6-7   | 0.000183                                                  | 98,600                            | 18                                                | 98,591                                                  | 7,060,953                                                    | 71.6                                 |
| 7-8   | 0.000159                                                  | 98,582                            | 16                                                | 98,574                                                  | 6,962,361                                                    | 70.6                                 |
| 8-9   | 0.000144                                                  | 98,567                            | 14                                                | 98,560                                                  | 6,863,787                                                    | 69.6                                 |
| 9-10  | 0.000137                                                  | 98,552                            | 13                                                | 98,546                                                  | 6,765,227                                                    | 68.6                                 |
| 10-11 | 0.000139                                                  | 98,539                            | 14                                                | 98,532                                                  | 6,666,681                                                    | 67.7                                 |
| 11-12 | 0.000150                                                  | 98,525                            | 15                                                | 98,518                                                  | 6,568,149                                                    | 66.7                                 |
| 12-13 | 0.000170                                                  | 98,511                            | 17                                                | 98,502                                                  | 6,469,631                                                    | 65.7                                 |
| 13-14 | 0.000199                                                  | 98,494                            | 20                                                | 98,484                                                  | 6,371,129                                                    | 64.7                                 |
| 14-15 | 0.000236                                                  | 98,474                            | 23                                                | 98,463                                                  | 6,272,645                                                    | 63.7                                 |
| 15-16 | 0.000278                                                  | 98,451                            | 27                                                | 98,437                                                  | 6,174,183                                                    | 62.7                                 |
| 16-17 | 0.000322                                                  | 98,424                            | 32                                                | 98,408                                                  | 6,075,745                                                    | 61.7                                 |
| 17-18 | 0.000371                                                  | 98,392                            | 36                                                | 98,374                                                  | 5,977,338                                                    | 60.8                                 |
| 18-19 | 0.000424                                                  | 98,355                            | 42                                                | 98,335                                                  | 5,878,964                                                    | 59.8                                 |
| 19-20 | 0.000481                                                  | 98,314                            | 47                                                | 98,290                                                  | 5,780,629                                                    | 58.8                                 |
| 20-21 | 0.000547                                                  | 98,266                            | 54                                                | 98,240                                                  | 5,682,339                                                    | 57.8                                 |
| 21-22 | 0.000616                                                  | 98,213                            | 60                                                | 98,183                                                  | 5,584,099                                                    | 56.9                                 |
| 22-23 | 0.000678                                                  | 98,152                            | 67                                                | 98,119                                                  | 5,485,917                                                    | 55.9                                 |
| 23-24 | 0.000727                                                  | 98,086                            | 71                                                | 98,050                                                  | 5,387,798                                                    | 54.9                                 |
| 24-25 | 0.000765                                                  | 98,014                            | 75                                                | 97,977                                                  | 5,289,748                                                    | 54.0                                 |
| 25-26 | 0.000804                                                  | 97,940                            | 79                                                | 97,900                                                  | 5,191,771                                                    | 53.0                                 |
| 26-27 | 0.000848                                                  | 97,861                            | 83                                                | 97,819                                                  | 5,093,871                                                    | 52.1                                 |
| 27-28 | 0.000895                                                  | 97,778                            | 87                                                | 97,734                                                  | 4,996,051                                                    | 51.1                                 |
| 28-29 | 0.000944                                                  | 97,690                            | 92                                                | 97,644                                                  | 4,898,317                                                    | 50.1                                 |
| 29-30 | 0.001001                                                  | 97,598                            | 98                                                | 97,549                                                  | 4,800,673                                                    | 49.2                                 |
| 30-31 | 0.001069                                                  | 97,500                            | 104                                               | 97,448                                                  | 4,703,124                                                    | 48.2                                 |
| 31-32 | 0.001150                                                  | 97,396                            | 112                                               | 97,340                                                  | 4,605,675                                                    | 47.3                                 |
| 32-33 | 0.001247                                                  | 97,284                            | 121                                               | 97,224                                                  | 4,508,335                                                    | 46.3                                 |
| 33-34 | 0.001340                                                  | 97,163                            | 130                                               | 97,098                                                  | 4,411,112                                                    | 45.4                                 |
| 34-35 | 0.001447                                                  | 97,033                            | 140                                               | 96,962                                                  | 4,314,014                                                    | 44.5                                 |
| 35-36 | 0.001560                                                  | 96,892                            | 151                                               | 96,817                                                  | 4,217,052                                                    | 43.5                                 |
| 36-37 | 0.001689                                                  | 96,741                            | 163                                               | 96,659                                                  | 4,120,235                                                    | 42.6                                 |
| 37-38 | 0.001845                                                  | 96,578                            | 178                                               | 96,489                                                  | 4,023,575                                                    | 41.7                                 |
| 38-39 | 0.002034                                                  | 96,400                            | 196                                               | 96,302                                                  | 3,927,087                                                    | 40.7                                 |
| 39-40 | 0.002251                                                  | 96,203                            | 217                                               | 96,095                                                  | 3,830,785                                                    | 39.8                                 |
| 40-41 | 0.002474                                                  | 95,987                            | 237                                               | 95,868                                                  | 3,734,690                                                    | 38.9                                 |
| 41-42 | 0.002702                                                  | 95,749                            | 259                                               | 95,620                                                  | 3,638,822                                                    | 38.0                                 |
| 42-43 | 0.002955                                                  | 95,491                            | 282                                               | 95,350                                                  | 3,543,202                                                    | 37.1                                 |
| 43-44 | 0.003237                                                  | 95,209                            | 308                                               | 95,054                                                  | 3,447,852                                                    | 36.2                                 |
| 44-45 | 0.003545                                                  | 94,900                            | 336                                               | 94,732                                                  | 3,352,797                                                    | 35.3                                 |
| 45-46 | 0.003869                                                  | 94,564                            | 366                                               | 94,381                                                  | 3,258,065                                                    | 34.5                                 |
| 46-47 | 0.004198                                                  | 94,198                            | 395                                               | 94,000                                                  | 3,163,684                                                    | 33.6                                 |
| 47-48 | 0.004538                                                  | 93,803                            | 426                                               | 93,590                                                  | 3,069,684                                                    | 32.7                                 |
| 48-49 | 0.004893                                                  | 93,377                            | 457                                               | 93,148                                                  | 2,976,094                                                    | 31.9                                 |
| 49-50 | 0.005271                                                  | 92,920                            | 490                                               | 92,675                                                  | 2,882,946                                                    | 31.0                                 |
| 50-51 | 0.005681                                                  | 92,430                            | 525                                               | 92,168                                                  | 2,790,271                                                    | 30.2                                 |
| 51-52 | 0.006122                                                  | 91,905                            | 563                                               | 91,624                                                  | 2,698,103                                                    | 29.4                                 |
| 52-53 | 0.006581                                                  | 91,343                            | 601                                               | 91,042                                                  | 2,606,479                                                    | 28.5                                 |
| 53-54 | 0.007043                                                  | 90,741                            | 639                                               | 90,422                                                  | 2,515,437                                                    | 27.7                                 |
| 54-55 | 0.007504                                                  | 90,102                            | 676                                               | 89,764                                                  | 2,425,015                                                    | 26.9                                 |
| 55-56 | 0.007988                                                  | 89,426                            | 714                                               | 89,069                                                  | 2,335,251                                                    | 26.1                                 |
| 56-57 | 0.008504                                                  | 88,712                            | 754                                               | 88,335                                                  | 2,246,182                                                    | 25.3                                 |
| 57-58 | 0.009054                                                  | 87,957                            | 796                                               | 87,559                                                  | 2,157,847                                                    | 24.5                                 |
| 58-59 | 0.009666                                                  | 87,161                            | 843                                               | 86,740                                                  | 2,070,288                                                    | 23.8                                 |
| 59-60 | 0.010375                                                  | 86,319                            | 896                                               | 85,871                                                  | 1,983,548                                                    | 23.0                                 |
| 60-61 | 0.011220                                                  | 85,423                            | 958                                               | 84,944                                                  | 1,897,677                                                    | 22.2                                 |
| 61-62 | 0.012199                                                  | 84,465                            | 1,030                                             | 83,949                                                  | 1,812,734                                                    | 21.5                                 |
| 62-63 | 0.013261                                                  | 83,434                            | 1,106                                             | 82,881                                                  | 1,728,784                                                    | 20.7                                 |
| 63-64 | 0.014304                                                  | 82,328                            | 1,178                                             | 81,739                                                  | 1,645,903                                                    | 20.0                                 |
| 64-65 | 0.015288                                                  | 81,150                            | 1,241                                             | 80,530                                                  | 1,564,164                                                    | 19.3                                 |
| 65-66 | 0.016280                                                  | 79,910                            | 1,301                                             | 79,259                                                  | 1,483,635                                                    | 18.6                                 |
| 66-67 | 0.017251                                                  | 78,609                            | 1,356                                             | 77,931                                                  | 1,404,375                                                    | 17.9                                 |

**Table 9. Life table for black females: United States, 2006—Con.**

|                        | Probability<br>of dying<br>between<br>ages $x$ to $x + 1$ | Number<br>surviving to<br>age $x$ | Number<br>dying<br>between<br>ages $x$ to $x + 1$ | Person-years<br>lived<br>between<br>ages $x$ to $x + 1$ | Total<br>number of<br>person-years<br>lived above<br>age $x$ | Expectation<br>of life<br>at age $x$ |
|------------------------|-----------------------------------------------------------|-----------------------------------|---------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------|--------------------------------------|
| Age                    | $q_x$                                                     | $l_x$                             | $d_x$                                             | $L_x$                                                   | $T_x$                                                        | $e_x$                                |
| 67-68 . . . . .        | 0.018373                                                  | 77,253                            | 1,419                                             | 76,543                                                  | 1,326,445                                                    | 17.2                                 |
| 68-69 . . . . .        | 0.019702                                                  | 75,833                            | 1,494                                             | 75,086                                                  | 1,249,902                                                    | 16.5                                 |
| 69-70 . . . . .        | 0.021248                                                  | 74,339                            | 1,580                                             | 73,549                                                  | 1,174,816                                                    | 15.8                                 |
| 70-71 . . . . .        | 0.022981                                                  | 72,760                            | 1,672                                             | 71,923                                                  | 1,101,267                                                    | 15.1                                 |
| 71-72 . . . . .        | 0.024930                                                  | 71,087                            | 1,772                                             | 70,201                                                  | 1,029,343                                                    | 14.5                                 |
| 72-73 . . . . .        | 0.027177                                                  | 69,315                            | 1,884                                             | 68,373                                                  | 959,142                                                      | 13.8                                 |
| 73-74 . . . . .        | 0.029742                                                  | 67,431                            | 2,006                                             | 66,429                                                  | 890,768                                                      | 13.2                                 |
| 74-75 . . . . .        | 0.032620                                                  | 65,426                            | 2,134                                             | 64,359                                                  | 824,340                                                      | 12.6                                 |
| 75-76 . . . . .        | 0.035807                                                  | 63,292                            | 2,266                                             | 62,159                                                  | 759,981                                                      | 12.0                                 |
| 76-77 . . . . .        | 0.039070                                                  | 61,025                            | 2,384                                             | 59,833                                                  | 697,822                                                      | 11.4                                 |
| 77-78 . . . . .        | 0.042616                                                  | 58,641                            | 2,499                                             | 57,392                                                  | 637,989                                                      | 10.9                                 |
| 78-79 . . . . .        | 0.046470                                                  | 56,142                            | 2,609                                             | 54,838                                                  | 580,597                                                      | 10.3                                 |
| 79-80 . . . . .        | 0.050653                                                  | 53,533                            | 2,712                                             | 52,177                                                  | 525,760                                                      | 9.8                                  |
| 80-81 . . . . .        | 0.055190                                                  | 50,822                            | 2,805                                             | 49,419                                                  | 473,582                                                      | 9.3                                  |
| 81-82 . . . . .        | 0.060109                                                  | 48,017                            | 2,886                                             | 46,574                                                  | 424,163                                                      | 8.8                                  |
| 82-83 . . . . .        | 0.065436                                                  | 45,131                            | 2,953                                             | 43,654                                                  | 377,589                                                      | 8.4                                  |
| 83-84 . . . . .        | 0.071199                                                  | 42,177                            | 3,003                                             | 40,676                                                  | 333,936                                                      | 7.9                                  |
| 84-85 . . . . .        | 0.077427                                                  | 39,174                            | 3,033                                             | 37,658                                                  | 293,260                                                      | 7.5                                  |
| 85-86 . . . . .        | 0.084151                                                  | 36,141                            | 3,041                                             | 34,621                                                  | 255,602                                                      | 7.1                                  |
| 86-87 . . . . .        | 0.091401                                                  | 33,100                            | 3,025                                             | 31,587                                                  | 220,981                                                      | 6.7                                  |
| 87-88 . . . . .        | 0.099208                                                  | 30,075                            | 2,984                                             | 28,583                                                  | 189,394                                                      | 6.3                                  |
| 88-89 . . . . .        | 0.107602                                                  | 27,091                            | 2,915                                             | 25,633                                                  | 160,811                                                      | 5.9                                  |
| 89-90 . . . . .        | 0.116616                                                  | 24,176                            | 2,819                                             | 22,766                                                  | 135,178                                                      | 5.6                                  |
| 90-91 . . . . .        | 0.126277                                                  | 21,357                            | 2,697                                             | 20,008                                                  | 112,412                                                      | 5.3                                  |
| 91-92 . . . . .        | 0.136615                                                  | 18,660                            | 2,549                                             | 17,385                                                  | 92,403                                                       | 5.0                                  |
| 92-93 . . . . .        | 0.147656                                                  | 16,111                            | 2,379                                             | 14,921                                                  | 75,018                                                       | 4.7                                  |
| 93-94 . . . . .        | 0.159425                                                  | 13,732                            | 2,189                                             | 12,637                                                  | 60,097                                                       | 4.4                                  |
| 94-95 . . . . .        | 0.171942                                                  | 11,543                            | 1,985                                             | 10,550                                                  | 47,460                                                       | 4.1                                  |
| 95-96 . . . . .        | 0.185226                                                  | 9,558                             | 1,770                                             | 8,673                                                   | 36,910                                                       | 3.9                                  |
| 96-97 . . . . .        | 0.199289                                                  | 7,788                             | 1,552                                             | 7,012                                                   | 28,237                                                       | 3.6                                  |
| 97-98 . . . . .        | 0.214140                                                  | 6,236                             | 1,335                                             | 5,568                                                   | 21,225                                                       | 3.4                                  |
| 98-99 . . . . .        | 0.229779                                                  | 4,900                             | 1,126                                             | 4,337                                                   | 15,657                                                       | 3.2                                  |
| 99-100 . . . . .       | 0.246202                                                  | 3,774                             | 929                                               | 3,310                                                   | 11,320                                                       | 3.0                                  |
| 100 and over . . . . . | 1.00000                                                   | 2,845                             | 2,845                                             | 8,010                                                   | 8,010                                                        | 2.8                                  |

**Table 10. Survivorship by age, race, and sex: Death-registration states, 1900–1902 to 1919–1921, and United States, 1929–1931 to 2006**

[Alaska and Hawaii included beginning in 1959. For decennial periods prior to 1929–1931, data are for groups of registration states as follows: 1900–1902 and 1909–1911, 10 states and the District of Columbia (D.C.); 1919–1921, 34 states and D.C. Beginning 1970 excludes deaths of nonresidents of the United States; see "Technical Notes" section]

| Age, race, and sex | Number of survivors out of 100,000 born alive ( $l_x$ ) |           |           |           |           |           |           |           |           |           |           |           |
|--------------------|---------------------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                    | 2006                                                    | 1999–2001 | 1989–1991 | 1979–1981 | 1969–1971 | 1959–1961 | 1949–1951 | 1939–1941 | 1929–1931 | 1919–1921 | 1909–1911 | 1900–1902 |
| <b>All races</b>   |                                                         |           |           |           |           |           |           |           |           |           |           |           |
| 0 . . . . .        | 100,000                                                 | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   |
| 1 . . . . .        | 99,329                                                  | 99,305    | 99,064    | 98,740    | 97,998    | 97,407    | 97,024    | 95,290    | 94,028    | 92,515    | 88,538    | 87,552    |
| 5 . . . . .        | 99,216                                                  | 99,176    | 98,877    | 98,495    | 97,668    | 96,998    | 96,482    | 94,220    | 91,978    | 83,389    | 83,887    | 81,804    |
| 10 . . . . .       | 99,147                                                  | 99,097    | 98,766    | 98,347    | 97,460    | 96,765    | 96,177    | 93,710    | 91,106    | 88,129    | 82,458    | 80,052    |
| 15 . . . . .       | 99,065                                                  | 98,998    | 98,635    | 98,196    | 97,261    | 96,551    | 95,885    | 93,235    | 90,385    | 87,144    | 81,506    | 78,963    |
| 20 . . . . .       | 98,747                                                  | 98,664    | 98,215    | 97,741    | 96,716    | 96,111    | 95,366    | 92,435    | 89,089    | 85,441    | 80,074    | 77,239    |
| 25 . . . . .       | 98,253                                                  | 98,202    | 97,671    | 97,110    | 96,000    | 95,517    | 94,676    | 91,335    | 87,269    | 83,146    | 78,046    | 74,768    |
| 30 . . . . .       | 97,759                                                  | 97,750    | 97,070    | 96,477    | 95,307    | 94,905    | 93,919    | 90,078    | 85,302    | 80,642    | 75,779    | 72,043    |
| 35 . . . . .       | 97,213                                                  | 97,199    | 96,322    | 95,808    | 94,482    | 94,144    | 92,976    | 88,573    | 83,118    | 77,961    | 73,127    | 69,078    |
| 40 . . . . .       | 96,495                                                  | 96,419    | 95,373    | 94,926    | 93,322    | 93,064    | 91,648    | 86,650    | 80,557    | 75,114    | 70,042    | 65,890    |
| 45 . . . . .       | 95,397                                                  | 95,268    | 94,154    | 93,599    | 91,587    | 91,378    | 89,634    | 84,069    | 77,343    | 72,036    | 66,561    | 62,436    |
| 50 . . . . .       | 93,750                                                  | 93,591    | 92,370    | 91,526    | 88,972    | 88,756    | 86,591    | 80,487    | 73,321    | 68,429    | 62,460    | 58,514    |
| 55 . . . . .       | 91,352                                                  | 91,211    | 89,658    | 88,348    | 85,110    | 84,711    | 82,176    | 75,557    | 68,182    | 63,947    | 57,555    | 53,852    |
| 60 . . . . .       | 88,057                                                  | 87,595    | 85,537    | 83,726    | 79,529    | 79,067    | 75,921    | 68,924    | 61,563    | 58,079    | 51,138    | 47,946    |
| 65 . . . . .       | 83,251                                                  | 82,224    | 79,519    | 77,107    | 71,933    | 71,147    | 67,555    | 60,366    | 53,195    | 50,560    | 43,194    | 40,911    |
| 70 . . . . .       | 76,661                                                  | 74,794    | 71,357    | 68,248    | 61,984    | 60,857    | 56,987    | 49,655    | 42,768    | 41,090    | 33,816    | 32,390    |
| 75 . . . . .       | 67,331                                                  | 64,561    | 60,449    | 56,799    | 49,705    | 48,170    | 43,903    | 36,735    | 30,789    | 29,729    | 23,552    | 22,960    |
| 80 . . . . .       | 54,201                                                  | 50,819    | 47,084    | 43,180    | 35,285    | 33,576    | 29,313    | 22,883    | 18,580    | 18,298    | 13,712    | 13,529    |
| 85 . . . . .       | 37,805                                                  | 34,471    | 31,770    | 27,960    | 20,908    | 18,542    | 15,785    | 11,073    | 8,542     | 8,683     | 6,001     | 6,053     |
| 90 . . . . .       | 20,898                                                  | 18,472    | 17,046    | 14,154    | 9,297     | 7,080     | 6,144     | 3,796     | 2,998     | 2,941     | 1,868     | 1,867     |
| 95 . . . . .       | 7,991                                                   | 6,871     | 6,282     | 5,043     | 2,786     | 1,524     | 1,511     | 857       | 636       | 646       | 361       | 344       |
| 100 . . . . .      | 1,737                                                   | 1,477     | 1,424     | 1,150     | 542       | 183       | 199       | 123       | 62        | 67        | 40        | 31        |
| <b>Male</b>        |                                                         |           |           |           |           |           |           |           |           |           |           |           |
| 0 . . . . .        | 100,000                                                 | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   |
| 1 . . . . .        | 99,266                                                  | 99,239    | 98,961    | 98,607    | 97,755    | 97,087    | 96,661    | 94,762    | 93,440    | 91,745    | 87,505    | 86,426    |
| 5 . . . . .        | 99,144                                                  | 99,095    | 98,754    | 98,333    | 97,395    | 96,643    | 96,077    | 93,624    | 91,294    | 88,505    | 82,718    | 80,548    |
| 10 . . . . .       | 99,068                                                  | 99,008    | 98,627    | 98,160    | 97,151    | 96,375    | 95,726    | 93,054    | 90,346    | 87,184    | 81,249    | 78,775    |
| 15 . . . . .       | 98,972                                                  | 98,890    | 98,464    | 97,972    | 96,904    | 96,107    | 95,366    | 92,508    | 89,561    | 86,156    | 80,261    | 77,681    |
| 20 . . . . .       | 98,524                                                  | 98,426    | 97,854    | 97,316    | 96,126    | 95,491    | 94,695    | 91,617    | 88,220    | 84,440    | 78,792    | 75,984    |
| 25 . . . . .       | 97,797                                                  | 97,746    | 97,049    | 96,361    | 95,040    | 94,631    | 93,791    | 90,385    | 86,359    | 82,252    | 76,675    | 73,472    |
| 30 . . . . .       | 97,099                                                  | 97,112    | 96,166    | 95,430    | 94,072    | 93,826    | 92,861    | 89,009    | 84,346    | 79,890    | 74,378    | 70,747    |
| 35 . . . . .       | 96,371                                                  | 96,382    | 95,091    | 94,501    | 92,997    | 92,889    | 91,760    | 87,371    | 82,075    | 77,514    | 71,614    | 67,752    |
| 40 . . . . .       | 95,466                                                  | 95,384    | 93,761    | 93,345    | 91,541    | 91,572    | 90,207    | 85,246    | 79,357    | 74,432    | 68,297    | 64,447    |
| 45 . . . . .       | 94,112                                                  | 93,931    | 92,139    | 91,649    | 89,369    | 89,492    | 87,819    | 82,336    | 75,882    | 71,244    | 64,518    | 60,849    |
| 50 . . . . .       | 92,082                                                  | 91,800    | 89,865    | 89,007    | 86,070    | 86,199    | 84,158    | 78,254    | 71,518    | 67,553    | 60,118    | 56,736    |
| 55 . . . . .       | 89,083                                                  | 88,862    | 86,492    | 84,936    | 81,139    | 81,039    | 78,781    | 72,627    | 65,981    | 62,965    | 54,970    | 51,939    |
| 60 . . . . .       | 85,054                                                  | 84,478    | 81,378    | 79,012    | 73,958    | 73,887    | 71,246    | 65,142    | 58,909    | 56,917    | 48,343    | 45,895    |
| 65 . . . . .       | 79,346                                                  | 78,083    | 73,971    | 70,646    | 64,318    | 64,177    | 61,566    | 55,776    | 50,154    | 49,218    | 40,264    | 38,736    |
| 70 . . . . .       | 71,652                                                  | 69,350    | 64,107    | 59,681    | 52,296    | 52,244    | 49,950    | 44,588    | 39,516    | 39,668    | 31,023    | 30,217    |
| 75 . . . . .       | 61,057                                                  | 57,572    | 51,385    | 46,272    | 38,797    | 38,950    | 36,756    | 31,864    | 27,718    | 28,316    | 21,213    | 21,076    |
| 80 . . . . .       | 46,859                                                  | 42,683    | 36,749    | 31,810    | 24,921    | 25,300    | 25,237    | 18,995    | 16,172    | 17,128    | 11,942    | 12,084    |
| 85 . . . . .       | 30,371                                                  | 26,473    | 21,815    | 18,020    | 13,168    | 12,845    | 11,750    | 8,693     | 7,107     | 7,920     | 5,059     | 5,179     |
| 90 . . . . .       | 15,034                                                  | 12,447    | 9,878     | 7,732     | 5,107     | 4,609     | 4,197     | 2,787     | 2,283     | 2,527     | 1,502     | 1,508     |
| 95 . . . . .       | 4,895                                                   | 3,847     | 2,927     | 2,279     | 1,326     | 970       | 955       | 586       | 451       | 556       | 289       | 262       |
| 100 . . . . .      | 850                                                     | 643       | 529       | 423       | 222       | 117       | 121       | 78        | 40        | 62        | 33        | 22        |
| <b>Female</b>      |                                                         |           |           |           |           |           |           |           |           |           |           |           |
| 0 . . . . .        | 100,000                                                 | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   |
| 1 . . . . .        | 99,395                                                  | 99,375    | 99,172    | 98,880    | 98,254    | 97,744    | 97,406    | 95,848    | 94,728    | 93,383    | 89,623    | 88,733    |
| 5 . . . . .        | 99,291                                                  | 99,261    | 99,006    | 98,666    | 97,955    | 97,371    | 96,908    | 94,848    | 92,789    | 90,380    | 85,117    | 83,119    |
| 10 . . . . .       | 99,229                                                  | 99,190    | 98,911    | 98,544    | 97,784    | 97,173    | 96,652    | 94,402    | 92,008    | 89,186    | 83,728    | 81,390    |
| 15 . . . . .       | 99,164                                                  | 99,111    | 98,814    | 98,432    | 97,636    | 97,016    | 96,431    | 94,000    | 91,364    | 88,247    | 82,813    | 80,307    |
| 20 . . . . .       | 98,982                                                  | 98,915    | 98,597    | 98,184    | 97,331    | 96,756    | 96,066    | 93,293    | 90,116    | 86,556    | 81,418    | 78,555    |
| 25 . . . . .       | 98,739                                                  | 98,682    | 98,325    | 97,883    | 96,966    | 96,418    | 95,583    | 92,322    | 88,328    | 84,135    | 79,481    | 76,119    |
| 30 . . . . .       | 98,461                                                  | 98,418    | 98,013    | 97,551    | 96,544    | 95,996    | 94,933    | 91,182    | 86,398    | 81,463    | 77,247    | 73,394    |
| 35 . . . . .       | 98,105                                                  | 98,052    | 97,596    | 97,140    | 95,966    | 95,409    | 94,206    | 89,810    | 84,304    | 78,713    | 74,719    | 70,463    |
| 40 . . . . .       | 97,579                                                  | 97,492    | 97,033    | 96,531    | 95,097    | 94,560    | 93,101    | 88,092    | 81,927    | 75,907    | 71,894    | 67,407    |
| 45 . . . . .       | 96,740                                                  | 96,645    | 96,222    | 95,570    | 93,793    | 93,265    | 91,469    | 85,856    | 79,041    | 72,954    | 68,755    | 64,121    |
| 50 . . . . .       | 95,478                                                  | 95,420    | 94,932    | 94,060    | 91,852    | 91,327    | 89,075    | 82,828    | 75,456    | 69,452    | 65,001    | 60,415    |
| 55 . . . . .       | 93,681                                                  | 93,597    | 92,881    | 91,760    | 89,066    | 88,451    | 85,694    | 78,708    | 70,832    | 65,099    | 60,392    | 55,908    |

See footnotes at end of table.

**Table 10. Survivorship by age, race, and sex: Death-registration states, 1900–1902 to 1919–1921, and United States, 1929–1931 to 2006—Con.**

[Alaska and Hawaii included beginning in 1959. For decennial periods prior to 1929–1931, data are for groups of registration states as follows: 1900–1902 and 1909–1911, 10 states and the District of Columbia (D.C.); 1919–1921, 34 states and D.C. Beginning 1970 excludes deaths of nonresidents of the United States; see "Technical Notes" section]

| Age, race, and sex | Number of survivors out of 100,000 born alive ( $l_x$ ) |           |           |           |           |           |           |           |           |           |           |           |
|--------------------|---------------------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                    | 2006                                                    | 1999–2001 | 1989–1991 | 1979–1981 | 1969–1971 | 1959–1961 | 1949–1951 | 1939–1941 | 1929–1931 | 1919–1921 | 1909–1911 | 1900–1902 |
| <b>Female—Con.</b> |                                                         |           |           |           |           |           |           |           |           |           |           |           |
| 60. . . . .        | 91,119                                                  | 90,739    | 89,742    | 88,414    | 85,139    | 84,430    | 80,890    | 73,093    | 64,795    | 59,438    | 54,226    | 50,155    |
| 65. . . . .        | 87,200                                                  | 86,367    | 85,075    | 83,520    | 79,698    | 78,462    | 74,119    | 65,523    | 56,924    | 52,126    | 46,438    | 43,246    |
| 70. . . . .        | 81,662                                                  | 80,158    | 78,522    | 76,720    | 71,955    | 70,100    | 64,873    | 55,449    | 46,774    | 42,741    | 36,916    | 34,721    |
| 75. . . . .        | 73,449                                                  | 71,257    | 69,287    | 67,186    | 61,107    | 58,394    | 52,111    | 42,425    | 34,600    | 31,344    | 26,155    | 24,994    |
| 80. . . . .        | 61,175                                                  | 58,411    | 56,986    | 54,372    | 46,445    | 43,063    | 36,486    | 27,524    | 21,578    | 19,613    | 15,682    | 15,129    |
| 85. . . . .        | 44,685                                                  | 41,798    | 41,115    | 37,772    | 29,538    | 25,269    | 20,668    | 13,972    | 10,322    | 9,515     | 7,051     | 7,063     |
| 90. . . . .        | 26,183                                                  | 23,918    | 23,666    | 20,578    | 14,160    | 10,056    | 8,548     | 5,044     | 3,656     | 3,314     | 2,269     | 2,306     |
| 95. . . . .        | 10,685                                                  | 9,553     | 9,346     | 7,862     | 4,565     | 2,193     | 2,207     | 1,195     | 807       | 728       | 441       | 452       |
| 100. . . . .       | 2,460                                                   | 2,181     | 2,251     | 1,927     | 954       | 264       | 298       | 179       | 82        | 72        | 49        | 43        |
| <b>White</b>       |                                                         |           |           |           |           |           |           |           |           |           |           |           |
| 0. . . . .         | 100,000                                                 | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   |
| 1. . . . .         | 99,442                                                  | 99,429    | 99,233    | 98,898    | 98,224    | 97,714    | 97,278    | 95,685    | 94,392    | 92,780    | 88,709    | 87,762    |
| 5. . . . .         | 99,341                                                  | 99,312    | 99,068    | 98,675    | 97,930    | 97,353    | 96,790    | 94,713    | 92,466    | 89,771    | 84,147    | 82,071    |
| 10. . . . .        | 99,277                                                  | 99,239    | 98,966    | 98,536    | 97,733    | 97,131    | 96,502    | 94,228    | 91,627    | 88,536    | 82,734    | 80,371    |
| 15. . . . .        | 99,200                                                  | 99,146    | 98,843    | 98,391    | 97,546    | 96,928    | 96,228    | 93,792    | 90,982    | 87,633    | 81,816    | 79,344    |
| 20. . . . .        | 98,898                                                  | 98,826    | 98,455    | 97,939    | 97,036    | 96,508    | 95,763    | 93,117    | 89,933    | 86,159    | 80,407    | 77,998    |
| 25. . . . .        | 98,430                                                  | 98,405    | 97,972    | 97,340    | 96,406    | 95,965    | 95,169    | 92,213    | 88,454    | 84,106    | 78,392    | 75,202    |
| 30. . . . .        | 97,970                                                  | 98,000    | 97,451    | 96,774    | 95,824    | 95,440    | 94,536    | 91,185    | 86,836    | 81,787    | 76,167    | 72,317    |
| 35. . . . .        | 97,466                                                  | 97,504    | 96,810    | 96,192    | 95,152    | 94,798    | 93,750    | 89,941    | 85,004    | 79,277    | 73,568    | 69,522    |
| 40. . . . .        | 96,799                                                  | 96,796    | 96,000    | 95,427    | 94,190    | 93,870    | 92,616    | 88,318    | 82,803    | 76,642    | 70,525    | 66,082    |
| 45. . . . .        | 95,771                                                  | 95,755    | 94,932    | 94,257    | 92,681    | 92,374    | 90,847    | 86,069    | 79,989    | 73,705    | 67,090    | 62,920    |
| 50. . . . .        | 94,231                                                  | 94,233    | 93,326    | 92,384    | 90,306    | 89,958    | 88,110    | 82,833    | 76,340    | 70,250    | 62,994    | 58,647    |
| 55. . . . .        | 91,992                                                  | 92,032    | 90,833    | 89,427    | 86,688    | 86,173    | 84,027    | 78,218    | 71,551    | 65,875    | 58,163    | 54,450    |
| 60. . . . .        | 88,870                                                  | 88,614    | 86,943    | 85,031    | 81,323    | 80,811    | 78,066    | 71,785    | 65,100    | 60,013    | 51,822    | 48,288    |
| 65. . . . .        | 84,216                                                  | 83,423    | 81,123    | 78,585    | 73,889    | 73,102    | 69,850    | 63,201    | 56,655    | 52,411    | 43,904    | 41,505    |
| 70. . . . .        | 77,739                                                  | 76,132    | 73,106    | 69,801    | 63,991    | 62,834    | 59,189    | 52,165    | 45,841    | 42,736    | 34,484    | 32,902    |
| 75. . . . .        | 68,440                                                  | 65,946    | 62,175    | 58,299    | 51,586    | 49,895    | 45,688    | 38,610    | 33,406    | 31,086    | 24,151    | 23,356    |
| 80. . . . .        | 55,215                                                  | 52,100    | 48,583    | 44,409    | 36,659    | 34,697    | 30,438    | 23,976    | 20,260    | 19,149    | 14,100    | 13,794    |
| 85. . . . .        | 38,526                                                  | 35,421    | 32,850    | 28,768    | 21,578    | 19,017    | 16,239    | 11,483    | 9,325     | 9,078     | 6,178     | 6,192     |
| 90. . . . .        | 21,196                                                  | 18,943    | 17,571    | 14,471    | 9,433     | 7,149     | 6,201     | 3,819     | 3,066     | 2,991     | 1,918     | 1,919     |
| 95. . . . .        | 7,979                                                   | 6,963     | 6,416     | 5,067     | 2,743     | 1,521     | 1,500     | 801       | 636       | 643       | 364       | 355       |
| 100. . . . .       | 1,672                                                   | 1,453     | 1,423     | 1,105     | 487       | 183       | 196       | 98        | 58        | 62        | 38        | 31        |
| <b>White male</b>  |                                                         |           |           |           |           |           |           |           |           |           |           |           |
| 0. . . . .         | 100,000                                                 | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   |
| 1. . . . .         | 99,388                                                  | 99,373    | 99,138    | 98,769    | 97,994    | 97,408    | 96,931    | 95,188    | 93,768    | 91,975    | 87,674    | 86,655    |
| 5. . . . .         | 99,279                                                  | 99,243    | 98,956    | 98,519    | 97,671    | 97,015    | 96,403    | 94,150    | 91,738    | 88,842    | 82,972    | 80,864    |
| 10. . . . .        | 99,208                                                  | 99,163    | 98,839    | 98,357    | 97,441    | 96,758    | 96,069    | 93,601    | 90,810    | 87,530    | 81,519    | 79,109    |
| 15. . . . .        | 99,117                                                  | 99,052    | 98,686    | 98,176    | 97,208    | 96,503    | 95,728    | 93,089    | 90,074    | 86,546    | 80,549    | 78,037    |
| 20. . . . .        | 98,702                                                  | 98,615    | 98,134    | 97,525    | 96,480    | 95,908    | 95,104    | 92,293    | 88,904    | 84,997    | 79,116    | 76,376    |
| 25. . . . .        | 98,017                                                  | 98,002    | 97,430    | 96,616    | 95,524    | 95,106    | 94,294    | 91,241    | 87,371    | 83,061    | 77,047    | 73,907    |
| 30. . . . .        | 97,370                                                  | 97,434    | 96,662    | 95,783    | 94,716    | 94,401    | 93,489    | 90,092    | 85,707    | 80,888    | 74,810    | 71,219    |
| 35. . . . .        | 96,697                                                  | 96,772    | 95,731    | 94,980    | 93,843    | 93,589    | 92,543    | 88,713    | 83,812    | 78,441    | 72,108    | 68,245    |
| 40. . . . .        | 95,851                                                  | 95,855    | 94,588    | 93,984    | 92,631    | 92,427    | 91,173    | 86,880    | 81,457    | 75,733    | 68,848    | 64,954    |
| 45. . . . .        | 94,569                                                  | 94,522    | 93,167    | 92,494    | 90,725    | 90,533    | 89,002    | 84,285    | 78,345    | 72,696    | 65,115    | 61,369    |
| 50. . . . .        | 92,655                                                  | 92,573    | 91,124    | 90,105    | 87,690    | 87,424    | 85,601    | 80,521    | 74,288    | 69,107    | 60,741    | 57,274    |
| 55. . . . .        | 89,850                                                  | 89,854    | 88,022    | 86,303    | 83,001    | 82,463    | 80,496    | 75,156    | 68,981    | 64,574    | 55,622    | 52,491    |
| 60. . . . .        | 86,041                                                  | 85,710    | 83,182    | 80,625    | 75,969    | 75,485    | 73,172    | 67,787    | 61,933    | 58,498    | 48,987    | 46,452    |
| 65. . . . .        | 80,526                                                  | 79,515    | 75,962    | 72,393    | 66,343    | 65,834    | 63,541    | 58,305    | 52,964    | 50,663    | 40,862    | 39,245    |
| 70. . . . .        | 72,970                                                  | 70,912    | 66,181    | 61,384    | 54,138    | 53,825    | 51,735    | 46,739    | 41,880    | 40,873    | 31,527    | 30,640    |
| 75. . . . .        | 62,425                                                  | 59,139    | 53,308    | 47,712    | 40,324    | 40,207    | 38,104    | 33,404    | 29,471    | 29,205    | 21,585    | 21,387    |
| 80. . . . .        | 48,070                                                  | 44,043    | 38,245    | 32,788    | 25,885    | 25,993    | 24,005    | 19,860    | 17,221    | 17,655    | 12,160    | 12,266    |
| 85. . . . .        | 31,170                                                  | 27,376    | 22,720    | 18,538    | 13,527    | 13,065    | 12,015    | 9,013     | 7,572     | 8,154     | 5,145     | 5,252     |
| 90. . . . .        | 15,318                                                  | 12,817    | 10,214    | 7,891     | 5,125     | 4,600     | 4,209     | 2,812     | 2,356     | 2,568     | 1,523     | 1,523     |
| 95. . . . .        | 4,873                                                   | 3,892     | 2,988     | 2,279     | 1,274     | 956       | 942       | 552       | 461       | 556       | 289       | 263       |
| 100. . . . .       | 804                                                     | 624       | 523       | 404       | 189       | 115       | 118       | 65        | 40        | 61        | 31        | 22        |

See footnotes at end of table.

**Table 10. Survivorship by age, race, and sex: Death-registration states, 1900–1902 to 1919–1921, and United States, 1929–1931 to 2006—Con.**

[Alaska and Hawaii included beginning in 1959. For decennial periods prior to 1929–1931, data are for groups of registration states as follows: 1900–1902 and 1909–1911, 10 states and the District of Columbia (D.C.); 1919–1921, 34 states and D.C. Beginning 1970 excludes deaths of nonresidents of the United States; see "Technical Notes" section]

| Age, race,<br>and sex         | Number of survivors out of 100,000 born alive ( $l_x$ ) |           |           |           |           |           |           |           |           |           |           |           |
|-------------------------------|---------------------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                               | 2006                                                    | 1999–2001 | 1989–1991 | 1979–1981 | 1969–1971 | 1959–1961 | 1949–1951 | 1939–1941 | 1929–1931 | 1919–1921 | 1909–1911 | 1900–1902 |
| <b>White female</b>           |                                                         |           |           |           |           |           |           |           |           |           |           |           |
| 0 . . . . .                   | 100,000                                                 | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   |
| 1 . . . . .                   | 99,499                                                  | 99,488    | 99,333    | 99,035    | 98,468    | 98,036    | 97,645    | 96,211    | 95,037    | 93,608    | 89,774    | 88,939    |
| 5 . . . . .                   | 99,406                                                  | 99,385    | 99,187    | 98,841    | 98,203    | 97,709    | 97,199    | 95,309    | 93,216    | 90,721    | 85,349    | 83,426    |
| 10 . . . . .                  | 99,349                                                  | 99,319    | 99,099    | 98,725    | 98,042    | 97,525    | 96,960    | 94,890    | 92,466    | 89,564    | 83,979    | 81,723    |
| 15 . . . . .                  | 99,288                                                  | 99,245    | 99,007    | 98,618    | 97,902    | 97,375    | 96,756    | 94,534    | 91,894    | 88,712    | 83,093    | 80,680    |
| 20 . . . . .                  | 99,105                                                  | 99,049    | 98,795    | 98,374    | 97,618    | 97,135    | 96,454    | 93,984    | 90,939    | 87,281    | 81,750    | 78,978    |
| 25 . . . . .                  | 98,874                                                  | 98,835    | 98,547    | 98,093    | 97,299    | 96,844    | 96,072    | 93,228    | 89,524    | 85,163    | 79,865    | 76,588    |
| 30 . . . . .                  | 98,616                                                  | 98,601    | 98,283    | 97,802    | 96,945    | 96,499    | 95,605    | 92,320    | 87,972    | 82,740    | 77,676    | 73,887    |
| 35 . . . . .                  | 98,292                                                  | 98,282    | 97,939    | 97,445    | 96,474    | 96,026    | 94,977    | 91,211    | 86,248    | 80,206    | 75,200    | 70,971    |
| 40 . . . . .                  | 97,813                                                  | 97,789    | 97,472    | 96,913    | 95,762    | 95,326    | 94,080    | 89,805    | 84,256    | 77,624    | 72,425    | 67,935    |
| 45 . . . . .                  | 97,048                                                  | 97,047    | 96,768    | 96,065    | 94,649    | 94,228    | 92,725    | 87,920    | 81,780    | 74,871    | 69,341    | 64,677    |
| 50 . . . . .                  | 95,893                                                  | 95,958    | 95,608    | 94,710    | 92,924    | 92,522    | 90,685    | 85,267    | 78,572    | 71,547    | 65,629    | 61,005    |
| 55 . . . . .                  | 94,231                                                  | 94,284    | 93,730    | 92,594    | 90,383    | 89,967    | 87,699    | 81,520    | 74,321    | 67,323    | 61,053    | 56,509    |
| 60 . . . . .                  | 91,806                                                  | 91,591    | 90,789    | 89,451    | 86,726    | 86,339    | 83,279    | 76,200    | 68,462    | 61,704    | 54,900    | 50,752    |
| 65 . . . . .                  | 88,012                                                  | 87,391    | 86,339    | 84,764    | 81,579    | 80,739    | 76,773    | 68,701    | 60,499    | 54,299    | 47,086    | 43,806    |
| 70 . . . . .                  | 82,584                                                  | 81,346    | 79,984    | 78,139    | 74,101    | 72,507    | 67,545    | 58,363    | 49,932    | 44,638    | 37,482    | 35,206    |
| 75 . . . . .                  | 74,416                                                  | 72,546    | 70,834    | 68,712    | 63,290    | 60,461    | 54,397    | 44,685    | 37,024    | 32,777    | 26,569    | 25,362    |
| 80 . . . . .                  | 62,094                                                  | 59,681    | 58,454    | 55,770    | 48,182    | 44,676    | 38,026    | 28,882    | 23,053    | 20,492    | 15,929    | 15,349    |
| 85 . . . . .                  | 45,373                                                  | 42,820    | 42,274    | 38,774    | 30,490    | 26,046    | 21,348    | 14,487    | 10,937    | 9,909     | 7,152     | 7,149     |
| 90 . . . . .                  | 26,479                                                  | 24,475    | 24,270    | 20,996    | 14,406    | 10,219    | 8,662     | 5,061     | 3,719     | 3,372     | 2,291     | 2,322     |
| 95 . . . . .                  | 10,656                                                  | 9,673     | 9,495     | 7,900     | 4,526     | 2,203     | 2,200     | 1,109     | 797       | 721       | 434       | 448       |
| 100 . . . . .                 | 2,373                                                   | 2,145     | 2,239     | 1,858     | 872       | 265       | 294       | 139       | 74        | 63        | 44        | 41        |
| <b>Black<sup>1</sup></b>      |                                                         |           |           |           |           |           |           |           |           |           |           |           |
| 0 . . . . .                   | 100,000                                                 | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   |
| 1 . . . . .                   | 98,663                                                  | 98,578    | 98,187    | 97,885    | 96,731    | 95,732    | 95,407    | 92,584    | 92,035    | 90,379    | 79,784    | 76,609    |
| 5 . . . . .                   | 98,492                                                  | 98,382    | 97,884    | 97,522    | 96,207    | 95,051    | 94,482    | 90,983    | 89,303    | 86,174    | 70,691    | 66,222    |
| 10 . . . . .                  | 98,394                                                  | 98,271    | 97,720    | 97,322    | 95,928    | 94,745    | 94,060    | 90,339    | 88,258    | 84,690    | 68,437    | 63,410    |
| 15 . . . . .                  | 98,285                                                  | 98,139    | 97,539    | 97,134    | 95,661    | 94,460    | 93,646    | 89,591    | 87,156    | 83,180    | 66,410    | 61,060    |
| 20 . . . . .                  | 97,868                                                  | 97,701    | 96,925    | 96,652    | 94,887    | 93,880    | 92,738    | 87,839    | 84,386    | 79,641    | 63,165    | 57,931    |
| 25 . . . . .                  | 97,174                                                  | 96,944    | 95,972    | 95,804    | 93,513    | 92,925    | 91,321    | 85,210    | 80,320    | 74,973    | 59,608    | 54,512    |
| 30 . . . . .                  | 96,380                                                  | 96,140    | 94,809    | 94,680    | 91,934    | 91,699    | 89,584    | 82,194    | 75,962    | 70,492    | 56,112    | 51,287    |
| 35 . . . . .                  | 95,452                                                  | 95,160    | 93,260    | 93,288    | 89,977    | 90,046    | 87,402    | 78,683    | 71,141    | 65,865    | 52,125    | 48,007    |
| 40 . . . . .                  | 94,256                                                  | 93,801    | 91,239    | 91,439    | 87,304    | 87,766    | 84,478    | 74,466    | 65,974    | 61,244    | 47,866    | 44,518    |
| 45 . . . . .                  | 92,515                                                  | 91,754    | 88,689    | 88,834    | 83,700    | 84,501    | 80,507    | 69,284    | 59,827    | 56,442    | 43,054    | 40,628    |
| 50 . . . . .                  | 89,877                                                  | 88,726    | 85,285    | 85,044    | 78,938    | 80,172    | 74,976    | 62,702    | 53,141    | 51,422    | 37,800    | 36,103    |
| 55 . . . . .                  | 85,930                                                  | 84,588    | 80,635    | 79,816    | 72,826    | 73,893    | 67,660    | 54,846    | 45,558    | 45,803    | 32,233    | 31,404    |
| 60 . . . . .                  | 80,756                                                  | 78,869    | 74,335    | 72,913    | 65,250    | 65,795    | 58,593    | 46,318    | 37,654    | 39,418    | 26,046    | 25,698    |
| 65 . . . . .                  | 73,917                                                  | 71,448    | 66,154    | 64,391    | 56,102    | 56,038    | 48,649    | 37,838    | 30,015    | 32,738    | 19,806    | 20,474    |
| 70 . . . . .                  | 65,507                                                  | 62,126    | 56,192    | 54,617    | 45,785    | 45,434    | 38,616    | 29,654    | 22,505    | 25,585    | 14,021    | 14,960    |
| 75 . . . . .                  | 55,000                                                  | 50,804    | 44,872    | 43,274    | 34,262    | 34,531    | 28,968    | 21,798    | 15,546    | 18,011    | 9,139     | 9,956     |
| 80 . . . . .                  | 42,229                                                  | 37,828    | 33,149    | 31,711    | 23,710    | 24,815    | 20,003    | 14,408    | 9,589     | 11,376    | 5,158     | 5,750     |
| 85 . . . . .                  | 28,469                                                  | 24,589    | 21,352    | 19,939    | 15,044    | 15,337    | 12,433    | 8,326     | 4,900     | 5,794     | 2,414     | 2,782     |
| 90 . . . . .                  | 15,864                                                  | 13,157    | 11,646    | 10,713    | 8,087     | 7,195     | 6,394     | 4,077     | 2,044     | 2,317     | 913       | 1,054     |
| 95 . . . . .                  | 6,716                                                   | 5,349     | 4,729     | 4,463     | 3,252     | 1,777     | 2,010     | 1,557     | 638       | 689       | 324       | 296       |
| 100 . . . . .                 | 1,928                                                   | 1,485     | 1,376     | 1,360     | 1,036     | 214       | 301       | 399       | 120       | 129       | 77        | 57        |
| <b>Black male<sup>1</sup></b> |                                                         |           |           |           |           |           |           |           |           |           |           |           |
| 0 . . . . .                   | 100,000                                                 | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   |
| 1 . . . . .                   | 98,552                                                  | 98,437    | 98,023    | 97,703    | 96,394    | 95,301    | 94,911    | 91,772    | 91,268    | 89,499    | 78,065    | 74,674    |
| 5 . . . . .                   | 98,367                                                  | 98,219    | 97,688    | 97,300    | 95,826    | 94,570    | 93,921    | 90,082    | 88,412    | 85,195    | 68,589    | 64,385    |
| 10 . . . . .                  | 98,254                                                  | 98,093    | 97,501    | 97,061    | 95,497    | 94,234    | 93,453    | 89,393    | 87,311    | 83,768    | 66,377    | 61,730    |
| 15 . . . . .                  | 98,125                                                  | 97,930    | 97,268    | 96,826    | 95,161    | 93,874    | 92,965    | 88,610    | 86,152    | 82,332    | 64,478    | 59,667    |
| 20 . . . . .                  | 97,484                                                  | 97,274    | 96,301    | 96,132    | 94,053    | 93,108    | 91,941    | 86,968    | 83,621    | 79,057    | 61,426    | 56,733    |
| 25 . . . . .                  | 96,435                                                  | 96,099    | 94,809    | 94,827    | 91,904    | 91,825    | 90,285    | 84,227    | 79,516    | 74,540    | 57,736    | 53,285    |
| 30 . . . . .                  | 95,274                                                  | 94,934    | 93,070    | 93,125    | 89,584    | 90,270    | 88,327    | 80,979    | 75,083    | 70,344    | 54,073    | 49,867    |
| 35 . . . . .                  | 94,001                                                  | 93,631    | 90,827    | 91,080    | 86,885    | 88,331    | 85,940    | 77,221    | 70,049    | 65,873    | 49,865    | 46,541    |
| 40 . . . . .                  | 92,489                                                  | 91,930    | 87,948    | 88,490    | 83,441    | 85,744    | 82,832    | 72,780    | 64,710    | 61,353    | 45,414    | 42,989    |
| 45 . . . . .                  | 90,398                                                  | 89,411    | 84,467    | 84,997    | 78,976    | 82,075    | 78,686    | 67,346    | 58,432    | 56,589    | 40,563    | 39,230    |
| 50 . . . . .                  | 87,206                                                  | 85,596    | 79,984    | 80,065    | 73,282    | 77,239    | 72,891    | 60,495    | 51,748    | 51,880    | 35,427    | 34,766    |
| 55 . . . . .                  | 82,211                                                  | 80,417    | 74,095    | 73,413    | 66,101    | 70,351    | 65,122    | 52,426    | 44,436    | 46,581    | 29,754    | 29,987    |

See footnotes at end of table.

**Table 10. Survivorship by age, race, and sex: Death-registration states, 1900–1902 to 1919–1921, and United States, 1929–1931 to 2006—Con.**

[Alaska and Hawaii included beginning in 1959. For decennial periods prior to 1929–1931, data are for groups of registration states as follows: 1900–1902 and 1909–1911, 10 states and the District of Columbia (D.C.); 1919–1921, 34 states and D.C. Beginning 1970 excludes deaths of nonresidents of the United States; see “Technical Notes” section]

| Age, race,<br>and sex              | Number of survivors out of 100,000 born alive ( $l_x$ ) |           |           |           |           |           |           |           |           |           |           |           |
|------------------------------------|---------------------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                                    | 2006                                                    | 1999–2001 | 1989–1991 | 1979–1981 | 1969–1971 | 1959–1961 | 1949–1951 | 1939–1941 | 1929–1931 | 1919–1921 | 1909–1911 | 1900–1902 |
| <b>Black male<sup>1</sup>—Con.</b> |                                                         |           |           |           |           |           |           |           |           |           |           |           |
| 60. . . . .                        | 75,746                                                  | 73,369    | 66,334    | 64,980    | 57,457    | 61,669    | 55,535    | 43,833    | 36,790    | 40,506    | 23,750    | 24,194    |
| 65. . . . .                        | 67,414                                                  | 64,588    | 56,795    | 55,061    | 47,485    | 51,392    | 45,198    | 35,371    | 29,314    | 34,042    | 17,806    | 19,015    |
| 70. . . . .                        | 57,534                                                  | 53,926    | 45,690    | 44,213    | 36,925    | 39,914    | 35,018    | 27,236    | 21,741    | 26,923    | 12,295    | 13,829    |
| 75. . . . .                        | 45,743                                                  | 41,441    | 33,755    | 32,717    | 25,921    | 29,064    | 25,472    | 19,456    | 14,419    | 18,854    | 7,494     | 8,892     |
| 80. . . . .                        | 32,641                                                  | 28,326    | 22,549    | 22,017    | 16,560    | 19,994    | 16,904    | 12,186    | 8,239     | 11,615    | 3,894     | 4,831     |
| 85. . . . .                        | 20,043                                                  | 16,433    | 12,709    | 12,383    | 9,648     | 11,620    | 9,898     | 6,444     | 3,660     | 5,605     | 1,747     | 2,030     |
| 90. . . . .                        | 9,952                                                   | 7,579     | 5,972     | 5,708     | 4,696     | 5,174     | 4,642     | 2,836     | 1,246     | 2,040     | 595       | 634       |
| 95. . . . .                        | 3,675                                                   | 2,549     | 1,971     | 2,009     | 1,721     | 1,240     | 1,342     | 961       | 307       | 552       | 189       | 137       |
| 100. . . . .                       | 905                                                     | 560       | 466       | 513       | 489       | 149       | 192       | 209       | 41        | 77        | 40        | 18        |
| <b>Black female<sup>1</sup></b>    |                                                         |           |           |           |           |           |           |           |           |           |           |           |
| 0. . . . .                         | 100,000                                                 | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   | 100,000   |
| 1. . . . .                         | 98,777                                                  | 98,723    | 98,356    | 98,073    | 97,076    | 96,172    | 95,913    | 93,416    | 92,796    | 91,251    | 81,493    | 78,525    |
| 5. . . . .                         | 98,622                                                  | 98,550    | 98,087    | 97,751    | 96,598    | 95,543    | 95,055    | 91,906    | 90,185    | 87,149    | 72,768    | 68,056    |
| 10. . . . .                        | 98,539                                                  | 98,455    | 97,946    | 97,590    | 96,369    | 95,265    | 94,679    | 91,308    | 89,201    | 85,607    | 70,508    | 65,111    |
| 15. . . . .                        | 98,451                                                  | 98,354    | 97,818    | 97,450    | 96,172    | 95,057    | 94,343    | 90,594    | 88,088    | 83,954    | 68,218    | 62,384    |
| 20. . . . .                        | 98,266                                                  | 98,141    | 97,566    | 97,180    | 95,729    | 94,660    | 93,544    | 88,736    | 85,078    | 80,154    | 64,764    | 59,053    |
| 25. . . . .                        | 97,940                                                  | 97,784    | 97,140    | 96,754    | 95,035    | 94,005    | 92,336    | 86,198    | 81,067    | 75,359    | 61,430    | 55,795    |
| 30. . . . .                        | 97,500                                                  | 97,313    | 96,514    | 96,150    | 94,114    | 93,070    | 90,799    | 83,384    | 76,816    | 70,633    | 58,281    | 52,773    |
| 35. . . . .                        | 96,892                                                  | 96,630    | 95,599    | 95,338    | 92,807    | 91,670    | 88,805    | 80,092    | 72,192    | 65,857    | 54,595    | 49,567    |
| 40. . . . .                        | 95,987                                                  | 95,585    | 94,364    | 94,137    | 90,817    | 89,676    | 86,052    | 76,084    | 67,271    | 61,130    | 50,568    | 46,146    |
| 45. . . . .                        | 94,564                                                  | 93,970    | 92,676    | 92,322    | 88,001    | 86,793    | 82,257    | 71,157    | 61,365    | 56,230    | 45,947    | 42,279    |
| 50. . . . .                        | 92,430                                                  | 91,661    | 90,277    | 89,563    | 84,168    | 82,979    | 77,007    | 64,885    | 54,920    | 50,780    | 40,886    | 37,681    |
| 55. . . . .                        | 89,426                                                  | 88,478    | 86,793    | 85,653    | 79,177    | 77,362    | 70,196    | 57,314    | 47,074    | 44,742    | 35,415    | 33,124    |
| 60. . . . .                        | 85,423                                                  | 83,963    | 81,886    | 80,293    | 72,820    | 69,941    | 61,758    | 48,928    | 38,761    | 37,954    | 28,908    | 27,524    |
| 65. . . . .                        | 79,910                                                  | 77,781    | 75,031    | 73,266    | 64,716    | 60,825    | 52,358    | 40,504    | 30,852    | 31,044    | 22,302    | 21,995    |
| 70. . . . .                        | 72,760                                                  | 69,634    | 66,278    | 64,729    | 54,873    | 51,274    | 42,612    | 32,354    | 23,341    | 24,107    | 15,871    | 16,140    |
| 75. . . . .                        | 63,292                                                  | 59,239    | 55,684    | 53,831    | 43,193    | 40,540    | 32,981    | 24,502    | 16,576    | 17,216    | 10,657    | 11,066    |
| 80. . . . .                        | 50,822                                                  | 46,358    | 43,622    | 41,686    | 31,756    | 30,315    | 23,712    | 17,039    | 10,822    | 11,151    | 6,324     | 6,708     |
| 85. . . . .                        | 36,141                                                  | 31,987    | 30,089    | 28,004    | 21,358    | 19,744    | 15,550    | 10,622    | 6,033     | 5,972     | 3,029     | 3,567     |
| 90. . . . .                        | 21,357                                                  | 18,309    | 17,536    | 16,260    | 12,210    | 9,675     | 8,590     | 5,652     | 2,774     | 2,579     | 1,206     | 1,492     |
| 95. . . . .                        | 9,558                                                   | 7,972     | 7,687     | 7,312     | 5,217     | 2,438     | 2,875     | 2,345     | 941       | 818       | 448       | 462       |
| 100. . . . .                       | 2,845                                                   | 2,346     | 2,364     | 2,398     | 1,803     | 293       | 445       | 659       | 193       | 179       | 112       | 97        |

<sup>1</sup>For 1939–1941 and 1949–1951, data shown are for the entire nonwhite population. During these periods, life tables were not constructed for the black population. See “Technical Notes” section.

**Table 11. Life expectancy by age, race, and sex: Death-registration states, 1900–1902 to 1919–1921, and United States, 1929–1931 to 2006**

[Alaska and Hawaii included beginning in 1959. For decennial periods prior to 1929–1931, data are for groups of registration states as follows: 1900–1902 and 1909–1911, 10 states and the District of Columbia (D.C.); 1919–1921, 34 states and D.C. Beginning 1970 excludes deaths of nonresidents of the United States; see "Technical Notes" section]

| Age, race,<br>and sex | Average number of years of life remaining ( $e_x$ ) |           |           |           |           |           |           |           |           |           |           |           |
|-----------------------|-----------------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                       | 2006                                                | 1999–2001 | 1989–1991 | 1979–1981 | 1969–1971 | 1959–1961 | 1949–1951 | 1939–1941 | 1929–1931 | 1919–1921 | 1909–1911 | 1900–1902 |
| <b>All races</b>      |                                                     |           |           |           |           |           |           |           |           |           |           |           |
| 0 . . . . .           | 77.7                                                | 76.83     | 75.37     | 73.88     | 70.75     | 69.89     | 68.07     | 63.62     | 59.20     | 56.40     | 51.49     | 49.24     |
| 1 . . . . .           | 77.2                                                | 76.37     | 75.08     | 73.82     | 71.19     | 70.75     | 69.16     | 65.76     | 61.94     | 59.94     | 57.11     | 55.20     |
| 5 . . . . .           | 73.3                                                | 72.47     | 71.22     | 70.00     | 67.43     | 67.04     | 65.54     | 62.49     | 59.29     | 57.99     | 56.21     | 54.98     |
| 10 . . . . .          | 68.4                                                | 67.52     | 66.29     | 65.10     | 62.57     | 62.19     | 60.74     | 57.82     | 54.84     | 53.79     | 52.15     | 51.14     |
| 15 . . . . .          | 63.4                                                | 62.59     | 61.38     | 60.19     | 57.69     | 57.33     | 55.91     | 53.10     | 50.25     | 49.37     | 47.73     | 46.81     |
| 20 . . . . .          | 58.6                                                | 57.79     | 56.63     | 55.46     | 53.00     | 52.58     | 51.20     | 48.54     | 45.94     | 45.30     | 43.53     | 42.79     |
| 25 . . . . .          | 53.9                                                | 53.05     | 51.93     | 50.81     | 48.37     | 47.89     | 46.56     | 44.09     | 41.85     | 41.47     | 39.60     | 39.12     |
| 30 . . . . .          | 49.2                                                | 48.28     | 47.23     | 46.12     | 43.71     | 43.18     | 41.91     | 39.67     | 37.75     | 37.68     | 35.70     | 35.51     |
| 35 . . . . .          | 44.4                                                | 43.54     | 42.58     | 41.43     | 39.07     | 38.51     | 37.31     | 35.30     | 33.68     | 33.89     | 31.90     | 31.92     |
| 40 . . . . .          | 39.7                                                | 38.87     | 37.98     | 36.79     | 34.52     | 33.92     | 32.81     | 31.03     | 29.67     | 30.08     | 28.20     | 28.34     |
| 45 . . . . .          | 35.2                                                | 34.31     | 33.44     | 32.27     | 30.12     | 29.50     | 28.49     | 26.90     | 25.79     | 26.25     | 24.54     | 24.77     |
| 50 . . . . .          | 30.7                                                | 29.88     | 29.03     | 27.94     | 25.93     | 25.29     | 24.40     | 22.98     | 22.06     | 22.50     | 20.98     | 21.26     |
| 55 . . . . .          | 26.5                                                | 25.59     | 24.83     | 23.85     | 21.99     | 21.37     | 20.57     | 19.31     | 18.53     | 18.90     | 17.55     | 17.88     |
| 60 . . . . .          | 22.4                                                | 21.54     | 20.90     | 20.02     | 18.34     | 17.71     | 17.04     | 15.91     | 15.24     | 15.54     | 14.42     | 14.76     |
| 65 . . . . .          | 18.5                                                | 17.77     | 17.28     | 16.51     | 15.00     | 14.39     | 13.83     | 12.80     | 12.23     | 12.47     | 11.60     | 11.86     |
| 70 . . . . .          | 14.9                                                | 14.27     | 13.96     | 13.32     | 12.00     | 11.38     | 10.92     | 10.00     | 9.58      | 9.74      | 9.11      | 9.30      |
| 75 . . . . .          | 11.6                                                | 11.12     | 11.00     | 10.48     | 9.32      | 8.71      | 8.40      | 7.62      | 7.32      | 7.49      | 6.99      | 7.08      |
| 80 . . . . .          | 8.7                                                 | 8.42      | 8.40      | 7.98      | 7.10      | 6.39      | 6.34      | 5.73      | 5.50      | 5.63      | 5.25      | 5.30      |
| 85 . . . . .          | 6.4                                                 | 6.22      | 6.23      | 5.96      | 5.28      | 4.58      | 4.69      | 4.31      | 4.19      | 4.21      | 4.00      | 3.96      |
| 90 . . . . .          | 4.6                                                 | 4.49      | 4.50      | 4.43      | 3.94      | 3.22      | 3.44      | 3.30      | 3.15      | 3.22      | 3.03      | 2.95      |
| 95 . . . . .          | 3.2                                                 | 3.19      | 3.29      | 3.34      | 3.06      | 2.43      | 2.54      | 2.61      | 2.26      | 2.32      | 2.35      | 2.18      |
| 100 . . . . .         | 2.3                                                 | 2.27      | 2.46      | 2.73      | 2.62      | 1.91      | 1.92      | 2.13      | 1.51      | 1.53      | 1.85      | 1.58      |
| <b>Male</b>           |                                                     |           |           |           |           |           |           |           |           |           |           |           |
| 0 . . . . .           | 75.1                                                | 74.10     | 71.83     | 70.11     | 67.04     | 66.80     | 65.47     | 61.60     | 57.71     | 55.50     | 49.86     | 47.88     |
| 1 . . . . .           | 74.7                                                | 73.66     | 71.58     | 70.10     | 67.58     | 67.80     | 66.73     | 64.00     | 60.75     | 59.47     | 55.95     | 54.35     |
| 5 . . . . .           | 70.8                                                | 69.77     | 67.73     | 66.29     | 63.82     | 64.10     | 63.12     | 60.76     | 58.14     | 57.60     | 55.11     | 54.22     |
| 10 . . . . .          | 65.8                                                | 64.83     | 62.81     | 61.41     | 58.98     | 59.27     | 58.35     | 56.12     | 53.75     | 53.44     | 51.07     | 50.39     |
| 15 . . . . .          | 60.9                                                | 59.90     | 57.91     | 56.52     | 54.12     | 54.43     | 53.56     | 51.43     | 49.18     | 49.05     | 46.66     | 46.06     |
| 20 . . . . .          | 56.1                                                | 55.17     | 53.25     | 51.88     | 49.54     | 49.77     | 48.92     | 46.91     | 44.88     | 44.99     | 42.48     | 42.03     |
| 25 . . . . .          | 51.5                                                | 50.54     | 48.67     | 47.37     | 45.07     | 45.19     | 44.36     | 42.51     | 40.79     | 41.11     | 38.59     | 38.38     |
| 30 . . . . .          | 46.9                                                | 45.85     | 44.10     | 42.81     | 40.51     | 40.56     | 39.78     | 38.13     | 36.71     | 37.26     | 34.70     | 34.76     |
| 35 . . . . .          | 42.2                                                | 41.18     | 39.57     | 38.20     | 35.95     | 35.94     | 35.23     | 33.79     | 32.65     | 33.43     | 30.94     | 31.19     |
| 40 . . . . .          | 37.6                                                | 36.58     | 35.09     | 33.64     | 31.48     | 31.42     | 30.79     | 29.57     | 28.68     | 29.63     | 27.32     | 27.65     |
| 45 . . . . .          | 33.1                                                | 32.10     | 30.66     | 29.22     | 27.18     | 27.09     | 26.55     | 25.52     | 24.87     | 25.84     | 23.77     | 24.14     |
| 50 . . . . .          | 28.8                                                | 27.79     | 26.37     | 25.00     | 23.12     | 23.02     | 22.59     | 21.72     | 21.25     | 22.11     | 20.32     | 20.70     |
| 55 . . . . .          | 24.7                                                | 23.62     | 22.30     | 21.08     | 19.36     | 19.32     | 18.96     | 18.20     | 17.79     | 18.53     | 16.98     | 17.38     |
| 60 . . . . .          | 20.7                                                | 19.71     | 18.53     | 17.46     | 15.99     | 15.94     | 15.68     | 14.99     | 14.62     | 15.22     | 13.95     | 14.33     |
| 65 . . . . .          | 17.0                                                | 16.11     | 15.12     | 14.21     | 12.99     | 12.95     | 12.74     | 12.07     | 11.72     | 12.20     | 11.24     | 11.50     |
| 70 . . . . .          | 13.6                                                | 12.80     | 12.05     | 11.35     | 10.39     | 10.33     | 10.11     | 9.46      | 9.18      | 9.52      | 8.83      | 9.02      |
| 75 . . . . .          | 10.4                                                | 9.89      | 9.39      | 8.90      | 8.13      | 7.99      | 7.83      | 7.22      | 7.02      | 7.31      | 6.75      | 6.84      |
| 80 . . . . .          | 7.8                                                 | 7.44      | 7.12      | 6.80      | 6.27      | 5.95      | 5.94      | 5.44      | 5.27      | 5.49      | 5.10      | 5.11      |
| 85 . . . . .          | 5.7                                                 | 5.47      | 5.31      | 5.13      | 4.73      | 4.39      | 4.41      | 4.11      | 4.02      | 4.10      | 3.90      | 3.82      |
| 90 . . . . .          | 4.1                                                 | 3.95      | 3.89      | 3.89      | 3.60      | 3.18      | 3.30      | 3.17      | 3.06      | 3.21      | 3.01      | 2.86      |
| 95 . . . . .          | 2.9                                                 | 2.82      | 2.92      | 2.98      | 2.82      | 2.43      | 2.49      | 2.52      | 2.21      | 2.38      | 2.36      | 2.13      |
| 100 . . . . .         | 2.0                                                 | 2.03      | 2.25      | 2.49      | 2.43      | 1.91      | 1.92      | 2.05      | 1.50      | 1.58      | 1.81      | 1.55      |
| <b>Female</b>         |                                                     |           |           |           |           |           |           |           |           |           |           |           |
| 0 . . . . .           | 80.2                                                | 79.45     | 78.81     | 77.62     | 74.64     | 73.24     | 70.96     | 65.89     | 60.90     | 57.40     | 53.24     | 50.70     |
| 1 . . . . .           | 79.7                                                | 78.95     | 78.47     | 77.50     | 74.97     | 73.93     | 71.84     | 67.73     | 65.37     | 60.45     | 58.37     | 56.10     |
| 5 . . . . .           | 75.8                                                | 75.04     | 74.60     | 73.67     | 71.19     | 70.21     | 68.21     | 64.43     | 60.66     | 58.41     | 57.39     | 55.80     |
| 10 . . . . .          | 70.8                                                | 70.09     | 69.67     | 68.75     | 66.31     | 65.35     | 63.38     | 59.73     | 56.16     | 54.16     | 53.31     | 51.94     |
| 15 . . . . .          | 65.9                                                | 65.15     | 64.73     | 63.83     | 61.41     | 60.45     | 58.52     | 54.97     | 51.54     | 49.71     | 48.87     | 47.60     |
| 20 . . . . .          | 61.0                                                | 60.27     | 59.87     | 58.98     | 56.59     | 55.60     | 53.73     | 50.37     | 47.21     | 45.63     | 44.66     | 43.60     |
| 25 . . . . .          | 56.1                                                | 55.41     | 55.03     | 54.16     | 51.80     | 50.79     | 48.99     | 45.87     | 43.11     | 41.86     | 40.69     | 39.92     |
| 30 . . . . .          | 51.3                                                | 50.55     | 50.19     | 49.33     | 47.01     | 46.00     | 44.28     | 41.41     | 39.02     | 38.15     | 36.79     | 36.30     |
| 35 . . . . .          | 46.4                                                | 45.73     | 45.40     | 44.53     | 42.28     | 41.27     | 39.63     | 37.01     | 34.92     | 34.40     | 32.95     | 32.71     |
| 40 . . . . .          | 41.7                                                | 40.98     | 40.65     | 39.80     | 37.64     | 36.61     | 35.06     | 32.68     | 30.86     | 30.58     | 29.15     | 29.08     |
| 45 . . . . .          | 37.0                                                | 36.31     | 35.97     | 35.17     | 33.13     | 32.09     | 30.64     | 28.46     | 26.89     | 26.71     | 25.36     | 25.44     |
| 50 . . . . .          | 32.5                                                | 31.74     | 31.42     | 30.69     | 28.77     | 27.71     | 26.40     | 24.40     | 23.05     | 22.92     | 21.67     | 21.84     |
| 55 . . . . .          | 28.0                                                | 27.31     | 27.05     | 26.39     | 24.59     | 23.53     | 22.33     | 20.54     | 19.38     | 19.28     | 18.13     | 18.39     |

See footnotes at end of table.

**Table 11. Life expectancy by age, race, and sex: Death-registration states, 1900–1902 to 1919–1921, and United States, 1929–1931 to 2006—Con.**

[Alaska and Hawaii included beginning in 1959. For decennial periods prior to 1929–1931, data are for groups of registration states as follows: 1900–1902 and 1909–1911, 10 states and the District of Columbia (D.C.); 1919–1921, 34 states and D.C. Beginning 1970 excludes deaths of nonresidents of the United States; see "Technical Notes" section]

| Age, race,<br>and sex | Average number of years of life remaining ( $e_x$ ) |           |           |           |           |           |           |           |           |           |           |           |
|-----------------------|-----------------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                       | 2006                                                | 1999–2001 | 1989–1991 | 1979–1981 | 1969–1971 | 1959–1961 | 1949–1951 | 1939–1941 | 1929–1931 | 1919–1921 | 1909–1911 | 1900–1902 |
| <b>Female—Con.</b>    |                                                     |           |           |           |           |           |           |           |           |           |           |           |
| 60. . . . .           | 23.8                                                | 23.09     | 22.90     | 22.29     | 20.60     | 19.52     | 18.50     | 16.92     | 15.94     | 15.87     | 14.90     | 15.21     |
| 65. . . . .           | 19.7                                                | 19.12     | 19.02     | 18.44     | 16.83     | 15.80     | 14.95     | 13.57     | 12.78     | 12.73     | 11.96     | 12.22     |
| 70. . . . .           | 15.9                                                | 15.40     | 15.38     | 14.84     | 13.35     | 12.37     | 11.71     | 10.56     | 9.99      | 9.96      | 9.38      | 9.59      |
| 75. . . . .           | 12.3                                                | 11.99     | 12.08     | 11.58     | 10.26     | 9.33      | 8.94      | 8.01      | 7.61      | 7.65      | 7.20      | 7.34      |
| 80. . . . .           | 9.3                                                 | 9.05      | 9.13      | 8.69      | 7.68      | 6.72      | 6.67      | 5.99      | 5.70      | 5.75      | 5.37      | 5.51      |
| 85. . . . .           | 6.8                                                 | 6.62      | 6.66      | 6.38      | 5.63      | 4.71      | 4.90      | 4.47      | 4.32      | 4.30      | 4.08      | 4.12      |
| 90. . . . .           | 4.8                                                 | 4.71      | 4.73      | 4.66      | 4.14      | 3.25      | 3.54      | 3.39      | 3.24      | 3.23      | 3.05      | 3.04      |
| 95. . . . .           | 3.3                                                 | 3.29      | 3.40      | 3.48      | 3.18      | 2.43      | 2.57      | 2.67      | 2.30      | 2.27      | 2.34      | 2.24      |
| 100. . . . .          | 2.3                                                 | 2.29      | 2.52      | 2.81      | 2.69      | 1.91      | 1.93      | 2.17      | 1.52      | 1.48      | 1.91      | 1.61      |
| <b>White</b>          |                                                     |           |           |           |           |           |           |           |           |           |           |           |
| 0. . . . .            | 78.2                                                | 77.41     | 76.13     | 74.53     | 71.62     | 70.73     | 69.02     | 64.92     | 60.86     | 57.42     | 51.90     | 49.64     |
| 1. . . . .            | 77.6                                                | 76.85     | 75.72     | 74.35     | 71.91     | 71.38     | 69.95     | 66.84     | 63.46     | 60.87     | 57.46     | 55.47     |
| 5. . . . .            | 73.7                                                | 72.94     | 71.84     | 70.52     | 68.12     | 67.64     | 66.29     | 63.52     | 60.75     | 58.86     | 56.51     | 55.18     |
| 10. . . . .           | 68.7                                                | 67.99     | 66.92     | 65.62     | 63.26     | 62.79     | 61.48     | 58.83     | 56.29     | 54.65     | 52.43     | 51.34     |
| 15. . . . .           | 63.8                                                | 63.05     | 61.99     | 60.71     | 58.37     | 57.92     | 56.65     | 54.09     | 51.69     | 50.21     | 48.01     | 47.01     |
| 20. . . . .           | 59.0                                                | 58.25     | 57.23     | 55.98     | 53.66     | 53.16     | 51.91     | 49.47     | 47.28     | 46.04     | 43.77     | 43.17     |
| 25. . . . .           | 54.2                                                | 53.48     | 52.50     | 51.30     | 49.00     | 48.44     | 47.22     | 44.92     | 43.02     | 42.07     | 39.79     | 39.26     |
| 30. . . . .           | 49.5                                                | 48.70     | 47.76     | 46.59     | 44.28     | 43.69     | 42.52     | 40.40     | 38.76     | 38.17     | 35.86     | 35.51     |
| 35. . . . .           | 44.7                                                | 43.93     | 43.06     | 41.86     | 39.58     | 38.97     | 37.86     | 35.93     | 34.50     | 34.27     | 32.03     | 32.01     |
| 40. . . . .           | 40.0                                                | 39.23     | 38.41     | 37.17     | 34.95     | 34.33     | 33.29     | 31.54     | 30.33     | 30.38     | 28.29     | 28.28     |
| 45. . . . .           | 35.4                                                | 34.63     | 33.81     | 32.60     | 30.48     | 29.84     | 28.88     | 27.29     | 26.29     | 26.45     | 24.60     | 24.82     |
| 50. . . . .           | 30.9                                                | 30.15     | 29.34     | 28.21     | 26.21     | 25.57     | 24.70     | 23.26     | 22.42     | 22.64     | 21.01     | 21.18     |
| 55. . . . .           | 26.6                                                | 25.80     | 25.08     | 24.05     | 22.19     | 21.58     | 20.77     | 19.47     | 18.75     | 18.97     | 17.57     | 17.91     |
| 60. . . . .           | 22.5                                                | 21.70     | 21.08     | 20.16     | 18.48     | 17.84     | 17.15     | 15.98     | 15.37     | 15.57     | 14.43     | 14.73     |
| 65. . . . .           | 18.6                                                | 17.88     | 17.40     | 16.59     | 15.08     | 14.44     | 13.86     | 12.80     | 12.28     | 12.47     | 11.60     | 11.87     |
| 70. . . . .           | 14.9                                                | 14.34     | 14.02     | 13.35     | 12.01     | 11.37     | 10.89     | 9.96      | 9.58      | 9.72      | 9.10      | 9.31      |
| 75. . . . .           | 11.5                                                | 11.15     | 11.03     | 10.47     | 9.27      | 8.65      | 8.34      | 7.55      | 7.30      | 7.47      | 6.98      | 7.08      |
| 80. . . . .           | 8.7                                                 | 8.42      | 8.39      | 7.95      | 7.01      | 6.33      | 6.27      | 5.64      | 5.45      | 5.59      | 5.22      | 5.30      |
| 85. . . . .           | 6.3                                                 | 6.19      | 6.20      | 5.90      | 5.19      | 4.53      | 4.62      | 4.20      | 4.12      | 4.15      | 3.97      | 3.95      |
| 90. . . . .           | 4.5                                                 | 4.44      | 4.46      | 4.36      | 3.84      | 3.20      | 3.41      | 3.16      | 3.10      | 3.17      | 3.00      | 2.93      |
| 95. . . . .           | 3.2                                                 | 3.14      | 3.25      | 3.25      | 2.92      | 2.43      | 2.53      | 2.45      | 2.22      | 2.28      | 2.29      | 2.16      |
| 100. . . . .          | 2.2                                                 | 2.22      | 2.43      | 2.62      | 2.41      | 1.91      | 1.92      | 1.95      | 1.48      | 1.50      | 1.71      | 1.56      |
| <b>White male</b>     |                                                     |           |           |           |           |           |           |           |           |           |           |           |
| 0. . . . .            | 75.7                                                | 74.74     | 72.72     | 70.82     | 67.94     | 67.55     | 66.31     | 62.81     | 59.12     | 56.34     | 50.23     | 48.23     |
| 1. . . . .            | 75.1                                                | 74.21     | 72.35     | 70.70     | 68.33     | 68.34     | 67.41     | 64.98     | 62.04     | 60.24     | 56.26     | 54.61     |
| 5. . . . .            | 71.2                                                | 70.31     | 68.48     | 66.87     | 64.55     | 64.61     | 63.77     | 61.68     | 59.38     | 58.31     | 55.37     | 54.43     |
| 10. . . . .           | 66.3                                                | 65.36     | 63.55     | 61.98     | 59.69     | 59.78     | 58.98     | 57.03     | 54.96     | 54.15     | 51.32     | 50.59     |
| 15. . . . .           | 61.3                                                | 60.43     | 58.65     | 57.09     | 54.83     | 54.93     | 54.18     | 52.33     | 50.39     | 49.74     | 46.91     | 46.25     |
| 20. . . . .           | 56.6                                                | 55.69     | 53.96     | 52.45     | 50.22     | 50.25     | 49.52     | 47.76     | 46.02     | 45.60     | 42.71     | 42.19     |
| 25. . . . .           | 51.9                                                | 51.02     | 49.33     | 47.92     | 45.70     | 45.65     | 44.93     | 43.28     | 41.78     | 41.60     | 38.79     | 38.52     |
| 30. . . . .           | 47.3                                                | 46.30     | 44.71     | 43.31     | 41.07     | 40.97     | 40.29     | 38.80     | 37.54     | 37.65     | 34.87     | 34.88     |
| 35. . . . .           | 42.6                                                | 41.60     | 40.12     | 38.66     | 36.43     | 36.31     | 35.68     | 34.36     | 33.33     | 33.74     | 31.08     | 31.29     |
| 40. . . . .           | 37.9                                                | 36.98     | 35.57     | 34.04     | 31.87     | 31.73     | 31.17     | 30.03     | 29.22     | 29.86     | 27.43     | 27.74     |
| 45. . . . .           | 33.4                                                | 32.46     | 31.07     | 29.55     | 27.48     | 27.34     | 26.87     | 25.87     | 25.28     | 26.00     | 23.86     | 24.21     |
| 50. . . . .           | 29.0                                                | 28.09     | 26.71     | 25.26     | 23.34     | 23.22     | 22.83     | 21.96     | 21.51     | 22.22     | 20.39     | 20.76     |
| 55. . . . .           | 24.9                                                | 23.86     | 22.56     | 21.25     | 19.51     | 19.45     | 19.11     | 18.34     | 17.97     | 18.59     | 17.03     | 17.42     |
| 60. . . . .           | 20.9                                                | 19.88     | 18.71     | 17.56     | 16.07     | 16.01     | 15.76     | 15.05     | 14.72     | 15.25     | 13.98     | 14.35     |
| 65. . . . .           | 17.1                                                | 16.22     | 15.24     | 14.26     | 13.02     | 12.97     | 12.75     | 12.07     | 11.77     | 12.21     | 11.25     | 11.51     |
| 70. . . . .           | 13.6                                                | 12.87     | 12.11     | 11.35     | 10.38     | 10.29     | 10.07     | 9.42      | 9.20      | 9.51      | 8.83      | 9.03      |
| 75. . . . .           | 10.5                                                | 9.92      | 9.40      | 8.87      | 8.06      | 7.92      | 7.77      | 7.17      | 7.02      | 7.30      | 6.75      | 6.84      |
| 80. . . . .           | 7.8                                                 | 7.43      | 7.11      | 6.76      | 6.18      | 5.89      | 5.88      | 5.38      | 5.26      | 5.47      | 5.09      | 5.10      |
| 85. . . . .           | 5.7                                                 | 5.43      | 5.28      | 5.09      | 4.63      | 4.34      | 4.35      | 4.02      | 3.99      | 4.06      | 3.88      | 3.81      |
| 90. . . . .           | 4.0                                                 | 3.90      | 3.85      | 3.83      | 3.49      | 3.16      | 3.27      | 3.06      | 3.03      | 3.18      | 2.99      | 2.85      |
| 95. . . . .           | 2.8                                                 | 2.77      | 2.88      | 2.91      | 2.67      | 2.43      | 2.48      | 2.40      | 2.19      | 2.36      | 2.31      | 2.12      |
| 100. . . . .          | 2.0                                                 | 1.98      | 2.21      | 2.41      | 2.20      | 1.91      | 1.92      | 1.96      | 1.49      | 1.58      | 1.68      | 1.55      |

See footnotes at end of table.

**Table 11. Life expectancy by age, race, and sex: Death-registration states, 1900–1902 to 1919–1921, and United States, 1929–1931 to 2006—Con.**

[Alaska and Hawaii included beginning in 1959. For decennial periods prior to 1929–1931, data are for groups of registration states as follows: 1900–1902 and 1909–1911, 10 states and the District of Columbia (D.C.); 1919–1921, 34 states and D.C. Beginning 1970 excludes deaths of nonresidents of the United States; see "Technical Notes" section]

| Age, race,<br>and sex         | Average number of years of life remaining ( $e_x$ ) |           |           |           |           |           |           |           |           |           |           |           |
|-------------------------------|-----------------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                               | 2006                                                | 1999–2001 | 1989–1991 | 1979–1981 | 1969–1971 | 1959–1961 | 1949–1951 | 1939–1941 | 1929–1931 | 1919–1921 | 1909–1911 | 1900–1902 |
| <b>White female</b>           |                                                     |           |           |           |           |           |           |           |           |           |           |           |
| 0 . . . . .                   | 80.6                                                | 79.97     | 79.45     | 78.22     | 75.49     | 74.19     | 72.03     | 67.29     | 62.67     | 58.53     | 53.62     | 51.08     |
| 1 . . . . .                   | 80.0                                                | 79.38     | 78.99     | 77.98     | 75.66     | 74.68     | 72.77     | 68.93     | 64.93     | 61.51     | 58.69     | 56.39     |
| 5 . . . . .                   | 76.1                                                | 75.46     | 75.10     | 74.13     | 71.86     | 70.92     | 69.09     | 65.57     | 62.17     | 59.43     | 57.67     | 56.03     |
| 10 . . . . .                  | 71.1                                                | 70.51     | 70.16     | 69.21     | 66.97     | 66.05     | 64.26     | 60.85     | 57.65     | 55.17     | 53.57     | 52.15     |
| 15 . . . . .                  | 66.1                                                | 65.56     | 65.23     | 64.29     | 62.07     | 61.15     | 59.39     | 56.07     | 53.00     | 50.67     | 49.12     | 47.79     |
| 20 . . . . .                  | 61.3                                                | 60.69     | 60.36     | 59.44     | 57.24     | 56.29     | 54.56     | 51.38     | 48.52     | 46.46     | 44.88     | 43.77     |
| 25 . . . . .                  | 56.4                                                | 55.81     | 55.51     | 54.60     | 52.42     | 51.45     | 49.77     | 46.78     | 44.25     | 42.55     | 40.88     | 40.05     |
| 30 . . . . .                  | 51.5                                                | 50.94     | 50.65     | 49.76     | 47.60     | 46.63     | 45.00     | 42.21     | 39.99     | 38.72     | 36.96     | 36.42     |
| 35 . . . . .                  | 46.7                                                | 46.10     | 45.82     | 44.93     | 42.82     | 41.84     | 40.28     | 37.70     | 35.73     | 34.86     | 33.09     | 32.82     |
| 40 . . . . .                  | 41.9                                                | 41.31     | 41.03     | 40.16     | 38.12     | 37.13     | 35.64     | 33.25     | 31.52     | 30.94     | 29.26     | 29.17     |
| 45 . . . . .                  | 37.2                                                | 36.61     | 36.30     | 35.49     | 33.54     | 32.53     | 31.12     | 28.90     | 27.39     | 26.98     | 25.45     | 25.51     |
| 50 . . . . .                  | 32.6                                                | 31.99     | 31.71     | 30.96     | 29.11     | 28.08     | 26.76     | 24.72     | 23.41     | 23.12     | 21.74     | 21.89     |
| 55 . . . . .                  | 28.2                                                | 27.52     | 27.29     | 26.61     | 24.85     | 23.81     | 22.58     | 20.73     | 19.60     | 19.40     | 18.18     | 18.43     |
| 60 . . . . .                  | 23.8                                                | 23.25     | 23.09     | 22.45     | 20.79     | 19.69     | 18.64     | 17.00     | 16.05     | 15.93     | 14.92     | 15.23     |
| 65 . . . . .                  | 19.8                                                | 19.23     | 19.14     | 18.55     | 16.93     | 15.88     | 15.00     | 13.56     | 12.81     | 12.75     | 11.97     | 12.23     |
| 70 . . . . .                  | 15.9                                                | 15.47     | 15.46     | 14.89     | 13.37     | 12.38     | 11.68     | 10.50     | 9.98      | 9.94      | 9.38      | 9.59      |
| 75 . . . . .                  | 12.3                                                | 12.02     | 12.11     | 11.58     | 10.21     | 9.28      | 8.87      | 7.92      | 7.56      | 7.62      | 7.20      | 7.33      |
| 80 . . . . .                  | 9.3                                                 | 9.04      | 9.12      | 8.65      | 7.59      | 6.67      | 6.59      | 5.88      | 5.63      | 5.70      | 5.35      | 5.50      |
| 85 . . . . .                  | 6.7                                                 | 6.59      | 6.62      | 6.32      | 5.54      | 4.66      | 4.83      | 4.34      | 4.24      | 4.24      | 4.06      | 4.10      |
| 90 . . . . .                  | 4.7                                                 | 4.67      | 4.69      | 4.59      | 4.05      | 3.23      | 3.51      | 3.24      | 3.17      | 3.16      | 3.00      | 3.02      |
| 95 . . . . .                  | 3.3                                                 | 3.24      | 3.36      | 3.39      | 3.04      | 2.43      | 2.56      | 2.47      | 2.24      | 2.20      | 2.27      | 2.21      |
| 100 . . . . .                 | 2.2                                                 | 2.24      | 2.49      | 2.70      | 2.49      | 1.91      | 1.92      | 1.95      | 1.48      | 1.42      | 1.74      | 1.58      |
| <b>Black<sup>1</sup></b>      |                                                     |           |           |           |           |           |           |           |           |           |           |           |
| 0 . . . . .                   | 73.2                                                | 71.74     | 69.16     | 68.52     | 64.11     | 63.91     | 60.73     | 53.85     | 48.53     | 47.03     | 35.87     | 33.80     |
| 1 . . . . .                   | 73.2                                                | 71.78     | 69.43     | 68.99     | 65.27     | 65.75     | 62.65     | 57.15     | 51.71     | 51.01     | 43.84     | 43.00     |
| 5 . . . . .                   | 69.4                                                | 67.92     | 65.64     | 65.25     | 61.62     | 62.21     | 59.25     | 54.13     | 49.25     | 49.44     | 45.34     | 45.55     |
| 10 . . . . .                  | 64.4                                                | 62.99     | 60.75     | 60.38     | 56.79     | 57.41     | 54.50     | 49.50     | 44.80     | 45.26     | 41.74     | 42.46     |
| 15 . . . . .                  | 59.5                                                | 58.07     | 55.86     | 55.49     | 51.94     | 52.57     | 49.73     | 44.89     | 40.37     | 41.02     | 38.02     | 39.04     |
| 20 . . . . .                  | 54.7                                                | 53.32     | 51.19     | 50.75     | 47.34     | 47.88     | 45.19     | 40.73     | 36.62     | 37.72     | 34.86     | 36.03     |
| 25 . . . . .                  | 50.1                                                | 48.71     | 46.67     | 46.18     | 43.00     | 43.35     | 40.85     | 36.91     | 33.32     | 34.91     | 31.72     | 33.04     |
| 30 . . . . .                  | 45.5                                                | 44.10     | 42.22     | 41.69     | 38.70     | 38.89     | 36.59     | 33.17     | 30.07     | 31.98     | 28.43     | 29.96     |
| 35 . . . . .                  | 40.9                                                | 39.53     | 37.87     | 37.28     | 34.48     | 34.56     | 32.44     | 29.53     | 26.94     | 29.07     | 25.39     | 26.82     |
| 40 . . . . .                  | 36.4                                                | 35.06     | 33.65     | 32.98     | 30.46     | 30.39     | 28.48     | 26.06     | 23.82     | 26.07     | 22.41     | 23.73     |
| 45 . . . . .                  | 32.0                                                | 30.79     | 29.55     | 28.87     | 26.65     | 26.46     | 24.75     | 22.82     | 20.97     | 23.17     | 19.58     | 20.67     |
| 50 . . . . .                  | 27.9                                                | 26.75     | 25.62     | 25.03     | 23.11     | 22.74     | 21.38     | 19.94     | 18.22     | 20.17     | 16.84     | 17.95     |
| 55 . . . . .                  | 24.1                                                | 22.93     | 21.95     | 21.50     | 19.83     | 19.45     | 18.41     | 17.43     | 15.80     | 17.33     | 14.33     | 15.23     |
| 60 . . . . .                  | 20.4                                                | 19.40     | 18.59     | 18.29     | 16.83     | 16.53     | 15.87     | 15.18     | 13.62     | 14.72     | 12.16     | 13.06     |
| 65 . . . . .                  | 17.1                                                | 16.14     | 15.56     | 15.37     | 14.16     | 13.96     | 13.59     | 13.02     | 11.49     | 12.22     | 10.22     | 10.87     |
| 70 . . . . .                  | 13.9                                                | 13.18     | 12.87     | 12.67     | 11.77     | 11.63     | 11.48     | 10.93     | 9.54      | 9.90      | 8.59      | 8.96      |
| 75 . . . . .                  | 11.1                                                | 10.54     | 10.48     | 10.32     | 9.89      | 9.52      | 9.48      | 8.97      | 7.84      | 8.00      | 7.08      | 7.24      |
| 80 . . . . .                  | 8.7                                                 | 8.29      | 8.30      | 8.17      | 8.20      | 7.28      | 7.62      | 7.31      | 6.19      | 6.22      | 5.80      | 5.79      |
| 85 . . . . .                  | 6.7                                                 | 6.41      | 6.51      | 6.54      | 6.54      | 5.27      | 5.79      | 5.91      | 4.92      | 4.88      | 4.80      | 4.56      |
| 90 . . . . .                  | 5.1                                                 | 4.90      | 4.94      | 5.13      | 5.09      | 3.48      | 3.97      | 4.64      | 3.83      | 3.84      | 4.26      | 3.60      |
| 95 . . . . .                  | 3.8                                                 | 3.71      | 3.82      | 4.08      | 4.28      | 2.43      | 2.70      | 3.51      | 2.83      | 2.90      | 3.31      | 2.82      |
| 100 . . . . .                 | 2.8                                                 | 2.81      | 2.91      | 3.58      | 3.93      | 1.91      | 1.94      | 2.57      | 1.87      | 1.94      | 2.27      | 2.18      |
| <b>Black male<sup>1</sup></b> |                                                     |           |           |           |           |           |           |           |           |           |           |           |
| 0 . . . . .                   | 69.7                                                | 68.08     | 64.47     | 64.10     | 60.00     | 61.48     | 58.91     | 52.26     | 47.55     | 47.14     | 34.05     | 32.54     |
| 1 . . . . .                   | 69.7                                                | 68.16     | 64.76     | 64.60     | 61.24     | 63.50     | 61.06     | 55.93     | 51.08     | 51.63     | 42.53     | 42.46     |
| 5 . . . . .                   | 65.8                                                | 64.31     | 60.98     | 60.86     | 57.60     | 59.98     | 57.69     | 52.95     | 48.69     | 50.18     | 44.25     | 45.06     |
| 10 . . . . .                  | 60.9                                                | 59.39     | 56.09     | 56.01     | 52.79     | 55.19     | 52.96     | 48.34     | 44.27     | 45.99     | 40.65     | 41.90     |
| 15 . . . . .                  | 56.0                                                | 54.48     | 51.22     | 51.14     | 47.96     | 50.39     | 48.23     | 43.74     | 39.83     | 41.75     | 36.77     | 38.26     |
| 20 . . . . .                  | 51.3                                                | 49.83     | 46.71     | 46.48     | 43.49     | 45.78     | 43.73     | 39.52     | 35.95     | 38.36     | 33.46     | 35.11     |
| 25 . . . . .                  | 46.8                                                | 45.41     | 42.40     | 42.09     | 39.45     | 41.38     | 39.49     | 35.72     | 32.67     | 35.54     | 30.44     | 32.21     |
| 30 . . . . .                  | 42.4                                                | 40.94     | 38.14     | 37.81     | 35.40     | 37.05     | 35.31     | 32.05     | 29.45     | 32.51     | 27.33     | 29.25     |
| 35 . . . . .                  | 37.9                                                | 36.47     | 34.02     | 33.60     | 31.42     | 32.81     | 31.21     | 28.48     | 26.39     | 29.54     | 24.42     | 26.16     |
| 40 . . . . .                  | 33.5                                                | 32.10     | 30.05     | 29.51     | 27.61     | 28.72     | 27.29     | 25.06     | 23.36     | 26.53     | 21.57     | 23.12     |
| 45 . . . . .                  | 29.2                                                | 27.92     | 26.18     | 25.61     | 24.03     | 24.89     | 23.59     | 21.88     | 20.59     | 23.55     | 18.85     | 20.09     |
| 50 . . . . .                  | 25.2                                                | 24.05     | 22.50     | 22.03     | 20.69     | 21.28     | 20.25     | 19.06     | 17.92     | 20.47     | 16.21     | 17.34     |
| 55 . . . . .                  | 21.6                                                | 20.43     | 19.08     | 18.79     | 17.66     | 18.11     | 17.36     | 16.60     | 15.46     | 17.50     | 13.82     | 14.69     |

See footnotes at end of table.

**Table 11. Life expectancy by age, race, and sex: Death-registration states, 1900–1902 to 1919–1921, and United States, 1929–1931 to 2006—Con.**

[Alaska and Hawaii included beginning in 1959. For decennial periods prior to 1929–1931, data are for groups of registration states as follows: 1900–1902 and 1909–1911, 10 states and the District of Columbia (D.C.); 1919–1921, 34 states and D.C. Beginning 1970 excludes deaths of nonresidents of the United States; see "Technical Notes" section]

| Age, race,<br>and sex              | Average number of years of life remaining ( $e_x$ ) |           |           |           |           |           |           |           |           |           |           |           |
|------------------------------------|-----------------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                                    | 2006                                                | 1999–2001 | 1989–1991 | 1979–1981 | 1969–1971 | 1959–1961 | 1949–1951 | 1939–1941 | 1929–1931 | 1919–1921 | 1909–1911 | 1900–1902 |
| <b>Black male<sup>1</sup>—Con.</b> |                                                     |           |           |           |           |           |           |           |           |           |           |           |
| 60. . . . .                        | 18.2                                                | 17.14     | 16.01     | 15.89     | 14.93     | 15.29     | 14.91     | 14.37     | 13.15     | 14.74     | 11.67     | 12.62     |
| 65. . . . .                        | 15.1                                                | 14.12     | 13.27     | 13.29     | 12.53     | 12.84     | 12.75     | 12.21     | 10.87     | 12.07     | 9.74      | 10.38     |
| 70. . . . .                        | 12.3                                                | 11.40     | 10.88     | 10.94     | 10.40     | 10.81     | 10.74     | 10.11     | 8.78      | 9.58      | 8.00      | 8.33      |
| 75. . . . .                        | 9.8                                                 | 9.07      | 8.84      | 8.90      | 8.76      | 8.93      | 8.83      | 8.17      | 6.99      | 7.61      | 6.58      | 6.60      |
| 80. . . . .                        | 7.7                                                 | 7.12      | 7.01      | 7.03      | 7.35      | 6.87      | 7.07      | 6.58      | 5.42      | 5.83      | 5.53      | 5.12      |
| 85. . . . .                        | 5.9                                                 | 5.52      | 5.58      | 5.61      | 5.92      | 5.08      | 5.38      | 5.34      | 4.30      | 4.53      | 4.48      | 4.04      |
| 90. . . . .                        | 4.5                                                 | 4.23      | 4.24      | 4.47      | 4.68      | 3.42      | 3.78      | 4.23      | 3.42      | 3.60      | 4.01      | 3.21      |
| 95. . . . .                        | 3.5                                                 | 3.24      | 3.37      | 3.62      | 3.92      | 2.43      | 2.64      | 3.20      | 2.54      | 2.61      | 3.15      | 2.50      |
| 100. . . . .                       | 2.6                                                 | 2.48      | 2.63      | 3.24      | 3.61      | 1.91      | 1.93      | 2.29      | 1.68      | 1.64      | 2.14      | 1.89      |
| <b>Black female<sup>1</sup></b>    |                                                     |           |           |           |           |           |           |           |           |           |           |           |
| 0. . . . .                         | 76.5                                                | 75.12     | 73.73     | 72.88     | 68.32     | 66.47     | 62.70     | 55.56     | 49.51     | 46.92     | 37.67     | 35.04     |
| 1. . . . .                         | 76.5                                                | 75.09     | 73.96     | 73.31     | 69.37     | 68.10     | 64.37     | 58.46     | 52.33     | 50.39     | 45.15     | 43.54     |
| 5. . . . .                         | 72.6                                                | 71.22     | 70.16     | 69.54     | 65.70     | 64.54     | 60.93     | 55.40     | 49.81     | 48.70     | 46.42     | 46.04     |
| 10. . . . .                        | 67.7                                                | 66.28     | 65.26     | 64.65     | 60.85     | 59.72     | 56.17     | 50.75     | 45.33     | 44.54     | 42.84     | 43.02     |
| 15. . . . .                        | 62.7                                                | 61.35     | 60.34     | 59.74     | 55.97     | 54.85     | 51.36     | 46.13     | 40.87     | 40.36     | 39.18     | 39.79     |
| 20. . . . .                        | 57.8                                                | 56.48     | 55.49     | 54.90     | 51.22     | 50.07     | 46.77     | 42.04     | 37.22     | 37.15     | 36.14     | 36.89     |
| 25. . . . .                        | 53.0                                                | 51.67     | 50.72     | 50.13     | 46.57     | 45.40     | 42.35     | 38.20     | 33.93     | 34.35     | 32.97     | 33.90     |
| 30. . . . .                        | 48.2                                                | 46.91     | 46.03     | 45.43     | 42.00     | 40.83     | 38.02     | 34.40     | 30.67     | 31.48     | 29.61     | 30.70     |
| 35. . . . .                        | 43.5                                                | 42.22     | 41.45     | 40.79     | 37.56     | 36.41     | 33.82     | 30.83     | 27.47     | 28.58     | 26.44     | 27.52     |
| 40. . . . .                        | 38.9                                                | 37.65     | 36.96     | 36.28     | 33.32     | 32.16     | 29.82     | 27.19     | 24.30     | 25.60     | 23.34     | 24.37     |
| 45. . . . .                        | 34.5                                                | 33.26     | 32.58     | 31.94     | 29.31     | 28.14     | 26.07     | 23.89     | 21.39     | 22.61     | 20.43     | 21.36     |
| 50. . . . .                        | 30.2                                                | 29.03     | 28.38     | 27.84     | 25.52     | 24.31     | 22.67     | 20.95     | 18.60     | 19.76     | 17.65     | 18.67     |
| 55. . . . .                        | 26.1                                                | 24.98     | 24.41     | 24.00     | 21.97     | 20.89     | 19.62     | 18.38     | 16.27     | 17.09     | 14.98     | 15.88     |
| 60. . . . .                        | 22.2                                                | 21.18     | 20.71     | 20.42     | 18.66     | 17.83     | 16.95     | 16.10     | 14.22     | 14.69     | 12.78     | 13.60     |
| 65. . . . .                        | 18.6                                                | 17.65     | 17.37     | 17.13     | 15.67     | 15.12     | 14.54     | 13.95     | 12.24     | 12.41     | 10.82     | 11.38     |
| 70. . . . .                        | 15.1                                                | 14.41     | 14.32     | 14.05     | 13.02     | 12.46     | 12.29     | 11.82     | 10.38     | 10.25     | 9.22      | 9.62      |
| 75. . . . .                        | 12.0                                                | 11.49     | 11.56     | 11.37     | 10.85     | 10.10     | 10.15     | 9.81      | 8.62      | 8.37      | 7.55      | 7.90      |
| 80. . . . .                        | 9.3                                                 | 8.96      | 9.05      | 8.95      | 8.87      | 7.66      | 8.15      | 8.02      | 6.90      | 6.58      | 6.05      | 6.48      |
| 85. . . . .                        | 7.1                                                 | 6.86      | 6.99      | 7.09      | 7.00      | 5.44      | 6.15      | 6.41      | 5.48      | 5.22      | 5.09      | 5.10      |
| 90. . . . .                        | 5.3                                                 | 5.16      | 5.24      | 5.47      | 5.41      | 3.52      | 4.13      | 4.96      | 4.20      | 4.07      | 4.50      | 4.01      |
| 95. . . . .                        | 3.9                                                 | 3.84      | 3.97      | 4.30      | 4.58      | 2.43      | 2.74      | 3.71      | 3.09      | 3.18      | 3.45      | 3.15      |
| 100. . . . .                       | 2.8                                                 | 2.84      | 2.97      | 3.69      | 4.20      | 1.91      | 1.94      | 2.70      | 2.04      | 2.23      | 2.39      | 2.49      |

<sup>1</sup>For 1939–1941 and 1949–1951, data shown are for the entire nonwhite population. During these periods, life tables were not constructed for the black population. See "Technical Notes" section.

**Table 12. Estimated life expectancy at birth in years, by race and sex: Death-registration states, 1900–1928, and United States, 1929–2006**

[For selected years, life table values shown are estimates. Beginning 1970 excludes deaths of nonresidents of the United States; see “Technical Notes” section]

| Area and year              | All races  |      |        | White      |      |        | Black <sup>1</sup> |      |        |
|----------------------------|------------|------|--------|------------|------|--------|--------------------|------|--------|
|                            | Both sexes | Male | Female | Both sexes | Male | Female | Both sexes         | Male | Female |
| United States <sup>2</sup> |            |      |        |            |      |        |                    |      |        |
| 2006 <sup>3</sup>          | 77.7       | 75.1 | 80.2   | 78.2       | 75.7 | 80.6   | 73.2               | 69.7 | 76.5   |
| 2005 <sup>3</sup>          | 77.4       | 74.9 | 79.9   | 77.9       | 75.4 | 80.4   | 72.8               | 69.3 | 76.1   |
| 2004 <sup>3</sup>          | 77.5       | 74.9 | 79.9   | 77.9       | 75.4 | 80.4   | 72.8               | 69.3 | 76.0   |
| 2003 <sup>3</sup>          | 77.1       | 74.5 | 79.6   | 77.6       | 75.0 | 80.0   | 72.3               | 68.8 | 75.6   |
| 2002 <sup>3</sup>          | 76.9       | 74.3 | 79.5   | 77.4       | 74.9 | 79.9   | 72.1               | 68.6 | 75.4   |
| 2001 <sup>3</sup>          | 76.9       | 74.2 | 79.4   | 77.4       | 74.8 | 79.9   | 72.0               | 68.4 | 75.2   |
| 2000 <sup>3</sup>          | 76.8       | 74.1 | 79.3   | 77.3       | 74.7 | 79.9   | 71.8               | 68.2 | 75.1   |
| 1999                       | 76.7       | 73.9 | 79.4   | 77.3       | 74.6 | 79.9   | 71.4               | 67.8 | 74.7   |
| 1998                       | 76.7       | 73.8 | 79.5   | 77.3       | 74.5 | 80.0   | 71.3               | 67.6 | 74.8   |
| 1997                       | 76.5       | 73.6 | 79.4   | 77.2       | 74.3 | 79.9   | 71.1               | 67.2 | 74.7   |
| 1996                       | 76.1       | 73.1 | 79.1   | 76.8       | 73.9 | 79.7   | 70.2               | 66.1 | 74.2   |
| 1995                       | 75.8       | 72.5 | 78.9   | 76.5       | 73.4 | 79.6   | 69.6               | 65.2 | 73.9   |
| 1994                       | 75.7       | 72.4 | 79.0   | 76.5       | 73.3 | 79.6   | 69.5               | 64.9 | 73.9   |
| 1993                       | 75.5       | 72.2 | 78.8   | 76.3       | 73.1 | 79.5   | 69.2               | 64.6 | 73.7   |
| 1992                       | 75.8       | 72.3 | 79.1   | 76.5       | 73.2 | 79.8   | 69.6               | 65.0 | 73.9   |
| 1991                       | 75.5       | 72.0 | 78.9   | 76.3       | 72.9 | 79.6   | 69.3               | 64.6 | 73.8   |
| 1990                       | 75.4       | 71.8 | 78.8   | 76.1       | 72.7 | 79.4   | 69.1               | 64.5 | 73.6   |
| 1989                       | 75.1       | 71.7 | 78.5   | 75.9       | 72.5 | 79.2   | 68.8               | 64.3 | 73.3   |
| 1988                       | 74.9       | 71.4 | 78.3   | 75.6       | 72.2 | 78.9   | 68.9               | 64.4 | 73.2   |
| 1987                       | 74.9       | 71.4 | 78.3   | 75.6       | 72.1 | 78.9   | 69.1               | 64.7 | 73.4   |
| 1986                       | 74.7       | 71.2 | 78.2   | 75.4       | 71.9 | 78.8   | 69.1               | 64.8 | 73.4   |
| 1985                       | 74.7       | 71.1 | 78.2   | 75.3       | 71.8 | 78.7   | 69.3               | 65.0 | 73.4   |
| 1984                       | 74.7       | 71.1 | 78.2   | 75.3       | 71.8 | 78.7   | 69.5               | 65.3 | 73.6   |
| 1983                       | 74.6       | 71.0 | 78.1   | 75.2       | 71.6 | 78.7   | 69.4               | 65.2 | 73.5   |
| 1982                       | 74.5       | 70.8 | 78.1   | 75.1       | 71.5 | 78.7   | 69.4               | 65.1 | 73.6   |
| 1981                       | 74.1       | 70.4 | 77.8   | 74.8       | 71.1 | 78.4   | 68.9               | 64.5 | 73.2   |
| 1980                       | 73.7       | 70.0 | 77.4   | 74.4       | 70.7 | 78.1   | 68.1               | 63.8 | 72.5   |
| 1979                       | 73.9       | 70.0 | 77.8   | 74.6       | 70.8 | 78.4   | 68.5               | 64.0 | 72.9   |
| 1978                       | 73.5       | 69.6 | 77.3   | 74.1       | 70.4 | 78.0   | 68.1               | 63.7 | 72.4   |
| 1977                       | 73.3       | 69.5 | 77.2   | 74.0       | 70.2 | 77.9   | 67.7               | 63.4 | 72.0   |
| 1976                       | 72.9       | 69.1 | 76.8   | 73.6       | 69.9 | 77.5   | 67.2               | 62.9 | 71.6   |
| 1975                       | 72.6       | 68.8 | 76.6   | 73.4       | 69.5 | 77.3   | 66.8               | 62.4 | 71.3   |
| 1974                       | 72.0       | 68.2 | 75.9   | 72.8       | 69.0 | 76.7   | 66.0               | 61.7 | 70.3   |
| 1973                       | 71.4       | 67.6 | 75.3   | 72.2       | 68.5 | 76.1   | 65.0               | 60.9 | 69.3   |
| 1972 <sup>4</sup>          | 71.2       | 67.4 | 75.1   | 72.0       | 68.3 | 75.9   | 64.7               | 60.4 | 69.1   |
| 1971                       | 71.1       | 67.4 | 75.0   | 72.0       | 68.3 | 75.8   | 64.6               | 60.5 | 68.9   |
| 1970                       | 70.8       | 67.1 | 74.7   | 71.7       | 68.0 | 75.6   | 64.1               | 60.0 | 68.3   |
| 1969                       | 70.5       | 66.8 | 74.4   | 71.4       | 67.7 | 75.3   | 64.5               | 60.6 | 68.6   |
| 1968                       | 70.2       | 66.6 | 74.1   | 71.1       | 67.5 | 75.0   | 64.1               | 60.4 | 67.9   |
| 1967                       | 70.5       | 67.0 | 74.3   | 71.4       | 67.8 | 75.2   | 64.9               | 61.4 | 68.5   |
| 1966                       | 70.2       | 66.7 | 73.9   | 71.1       | 67.5 | 74.8   | 64.2               | 60.9 | 67.6   |
| 1965                       | 70.2       | 66.8 | 73.8   | 71.1       | 67.6 | 74.8   | 64.3               | 61.2 | 67.6   |
| 1964                       | 70.2       | 66.8 | 73.7   | 71.0       | 67.7 | 74.7   | 64.2               | 61.3 | 67.3   |
| 1963 <sup>5</sup>          | 69.9       | 66.6 | 73.4   | 70.8       | 67.4 | 74.4   | 63.7               | 61.0 | 66.6   |
| 1962 <sup>5</sup>          | 70.1       | 66.9 | 73.5   | 70.9       | 67.7 | 74.5   | 64.2               | 61.6 | 66.9   |
| 1961                       | 70.2       | 67.1 | 73.6   | 71.0       | 67.8 | 74.6   | 64.5               | 62.0 | 67.1   |
| 1960                       | 69.7       | 66.6 | 73.1   | 70.6       | 67.4 | 74.1   | 63.6               | 61.1 | 66.3   |
| 1959                       | 69.9       | 66.8 | 73.2   | 70.7       | 67.5 | 74.2   | 63.9               | 61.3 | 66.5   |
| 1958                       | 69.6       | 66.6 | 72.9   | 70.5       | 67.4 | 73.9   | 63.4               | 61.0 | 65.8   |
| 1957                       | 69.5       | 66.4 | 72.7   | 70.3       | 67.2 | 73.7   | 63.0               | 60.7 | 65.5   |
| 1956                       | 69.7       | 66.7 | 72.9   | 70.5       | 67.5 | 73.9   | 63.6               | 61.3 | 66.1   |
| 1955                       | 69.6       | 66.7 | 72.8   | 70.5       | 67.4 | 73.7   | 63.7               | 61.4 | 66.1   |
| 1954                       | 69.6       | 66.7 | 72.8   | 70.5       | 67.5 | 73.7   | 63.4               | 61.1 | 65.9   |
| 1953                       | 68.8       | 66.0 | 72.0   | 69.7       | 66.8 | 73.0   | 62.0               | 59.7 | 64.5   |
| 1952                       | 68.6       | 65.8 | 71.6   | 69.5       | 66.6 | 72.6   | 61.4               | 59.1 | 63.8   |
| 1951                       | 68.4       | 65.6 | 71.4   | 69.3       | 66.5 | 72.4   | 61.2               | 59.2 | 63.4   |
| 1950                       | 68.2       | 65.6 | 71.1   | 69.1       | 66.5 | 72.2   | 60.8               | 59.1 | 62.9   |
| 1949                       | 68.0       | 65.2 | 70.7   | 68.8       | 66.2 | 71.9   | 60.6               | 58.9 | 62.7   |
| 1948                       | 67.2       | 64.6 | 69.9   | 68.0       | 65.5 | 71.0   | 60.0               | 58.1 | 62.5   |
| 1947                       | 66.8       | 64.4 | 69.7   | 67.6       | 65.2 | 70.5   | 59.7               | 57.9 | 61.9   |
| 1946                       | 66.7       | 64.4 | 69.4   | 67.5       | 65.1 | 70.3   | 59.1               | 57.5 | 61.0   |
| 1945                       | 65.9       | 63.6 | 67.9   | 66.8       | 64.4 | 69.5   | 57.7               | 56.1 | 59.6   |
| 1944                       | 65.2       | 63.6 | 66.8   | 66.2       | 64.5 | 68.4   | 56.6               | 55.8 | 57.7   |

See footnotes at end of table.

**Table 12. Estimated life expectancy at birth in years, by race and sex: Death-registration states, 1900–1928, and United States, 1929–2006—Con.**

[For selected years, life table values shown are estimates. Beginning 1970 excludes deaths of nonresidents of the United States; see “Technical Notes” section]

| Area and year                         | All races  |      |        | White      |      |        | Black <sup>1</sup> |      |        |
|---------------------------------------|------------|------|--------|------------|------|--------|--------------------|------|--------|
|                                       | Both sexes | Male | Female | Both sexes | Male | Female | Both sexes         | Male | Female |
| <b>United States<sup>2</sup>—Con.</b> |            |      |        |            |      |        |                    |      |        |
| 1943 . . . . .                        | 63.3       | 62.4 | 64.4   | 64.2       | 63.2 | 65.7   | 55.6               | 55.4 | 56.1   |
| 1942 . . . . .                        | 66.2       | 64.7 | 67.9   | 67.3       | 65.9 | 69.4   | 56.6               | 55.4 | 58.2   |
| 1941 . . . . .                        | 64.8       | 63.1 | 66.8   | 66.2       | 64.4 | 68.5   | 53.8               | 52.5 | 55.3   |
| 1940 . . . . .                        | 62.9       | 60.8 | 65.2   | 64.2       | 62.1 | 66.6   | 53.1               | 51.5 | 54.9   |
| 1939 . . . . .                        | 63.7       | 62.1 | 65.4   | 64.9       | 63.3 | 66.6   | 54.5               | 53.2 | 56.0   |
| 1938 . . . . .                        | 63.5       | 61.9 | 65.3   | 65.0       | 63.2 | 66.8   | 52.9               | 51.7 | 54.3   |
| 1937 . . . . .                        | 60.0       | 58.0 | 62.4   | 61.4       | 59.3 | 63.8   | 50.3               | 48.3 | 52.5   |
| 1936 . . . . .                        | 58.5       | 56.6 | 60.6   | 59.8       | 58.0 | 61.9   | 49.0               | 47.0 | 51.4   |
| 1935 . . . . .                        | 61.7       | 59.9 | 63.9   | 62.9       | 61.0 | 65.0   | 53.1               | 51.3 | 55.2   |
| 1934 . . . . .                        | 61.1       | 59.3 | 63.3   | 62.4       | 60.5 | 64.6   | 51.8               | 50.2 | 53.7   |
| 1933 . . . . .                        | 63.3       | 61.7 | 65.1   | 64.3       | 62.7 | 66.3   | 54.7               | 53.5 | 56.0   |
| 1932 . . . . .                        | 62.1       | 61.0 | 63.5   | 63.2       | 62.0 | 64.5   | 53.7               | 52.8 | 54.6   |
| 1931 . . . . .                        | 61.1       | 59.4 | 63.1   | 62.6       | 60.8 | 64.7   | 50.4               | 49.5 | 51.5   |
| 1930 . . . . .                        | 59.7       | 58.1 | 61.6   | 61.4       | 59.7 | 63.5   | 48.1               | 47.3 | 49.2   |
| 1929 . . . . .                        | 57.1       | 55.8 | 58.7   | 58.6       | 57.2 | 60.3   | 46.7               | 45.7 | 47.8   |
| <b>Death-registration states</b>      |            |      |        |            |      |        |                    |      |        |
| 1928 . . . . .                        | 56.8       | 55.6 | 58.3   | 58.4       | 57.0 | 60.0   | 46.3               | 45.6 | 47.0   |
| 1927 . . . . .                        | 60.4       | 59.0 | 62.1   | 62.0       | 60.5 | 63.9   | 48.2               | 47.6 | 48.9   |
| 1926 . . . . .                        | 56.7       | 55.5 | 58.0   | 58.2       | 57.0 | 59.6   | 44.6               | 43.7 | 45.6   |
| 1925 . . . . .                        | 59.0       | 57.6 | 60.6   | 60.7       | 59.3 | 62.4   | 45.7               | 44.9 | 46.7   |
| 1924 . . . . .                        | 59.7       | 58.1 | 61.5   | 61.4       | 59.8 | 63.4   | 46.6               | 45.5 | 47.8   |
| 1923 . . . . .                        | 57.2       | 56.1 | 58.5   | 58.3       | 57.1 | 59.6   | 48.3               | 47.7 | 48.9   |
| 1922 . . . . .                        | 59.6       | 58.4 | 61.0   | 60.4       | 59.1 | 61.9   | 52.4               | 51.8 | 53.0   |
| 1921 . . . . .                        | 60.8       | 60.0 | 61.8   | 61.8       | 60.8 | 62.9   | 51.5               | 51.6 | 51.3   |
| 1920 . . . . .                        | 54.1       | 53.6 | 54.6   | 54.9       | 54.4 | 55.6   | 45.3               | 45.5 | 45.2   |
| 1919 . . . . .                        | 54.7       | 53.5 | 56.0   | 55.8       | 54.5 | 57.4   | 44.5               | 44.5 | 44.4   |
| 1918 . . . . .                        | 39.1       | 36.6 | 42.2   | 39.8       | 37.1 | 43.2   | 31.1               | 29.9 | 32.5   |
| 1917 . . . . .                        | 50.9       | 48.4 | 54.0   | 52.0       | 49.3 | 55.3   | 38.8               | 37.0 | 40.8   |
| 1916 . . . . .                        | 51.7       | 49.6 | 54.3   | 52.5       | 50.2 | 55.2   | 41.3               | 39.6 | 43.1   |
| 1915 . . . . .                        | 54.5       | 52.5 | 56.8   | 55.1       | 53.1 | 57.5   | 38.9               | 37.5 | 40.5   |
| 1914 . . . . .                        | 54.2       | 52.0 | 56.8   | 54.9       | 52.7 | 57.5   | 38.9               | 37.1 | 40.8   |
| 1913 . . . . .                        | 52.5       | 50.3 | 55.0   | 53.0       | 50.8 | 55.7   | 38.4               | 36.7 | 40.3   |
| 1912 . . . . .                        | 53.5       | 51.5 | 55.9   | 53.9       | 51.9 | 56.2   | 37.9               | 35.9 | 40.0   |
| 1911 . . . . .                        | 52.6       | 50.9 | 54.4   | 53.0       | 51.3 | 54.9   | 36.4               | 34.6 | 38.2   |
| 1910 . . . . .                        | 50.0       | 48.4 | 51.8   | 50.3       | 48.6 | 52.0   | 35.6               | 33.8 | 37.5   |
| 1909 . . . . .                        | 52.1       | 50.5 | 53.8   | 52.5       | 50.9 | 54.2   | 35.7               | 34.2 | 37.3   |
| 1908 . . . . .                        | 51.1       | 49.5 | 52.8   | 51.5       | 49.9 | 53.3   | 34.9               | 33.8 | 36.0   |
| 1907 . . . . .                        | 47.6       | 45.6 | 49.9   | 48.1       | 46.0 | 50.4   | 32.5               | 31.1 | 34.0   |
| 1906 . . . . .                        | 48.7       | 46.9 | 50.8   | 49.3       | 47.3 | 51.4   | 32.9               | 31.8 | 33.9   |
| 1905 . . . . .                        | 48.7       | 47.3 | 50.2   | 49.1       | 47.6 | 50.6   | 31.3               | 29.6 | 33.1   |
| 1904 . . . . .                        | 47.6       | 46.2 | 49.1   | 48.0       | 46.6 | 49.5   | 30.8               | 29.1 | 32.7   |
| 1903 . . . . .                        | 50.5       | 49.1 | 52.0   | 50.9       | 49.5 | 52.5   | 33.1               | 31.7 | 34.6   |
| 1902 . . . . .                        | 51.5       | 49.8 | 53.4   | 51.9       | 50.2 | 53.8   | 34.6               | 32.9 | 36.4   |
| 1901 . . . . .                        | 49.1       | 47.6 | 50.6   | 49.4       | 48.0 | 51.0   | 33.7               | 32.2 | 35.3   |
| 1900 . . . . .                        | 47.3       | 46.3 | 48.3   | 47.6       | 46.6 | 48.7   | 33.0               | 32.5 | 33.5   |

<sup>1</sup>Prior to 1970, data for the black population are not available. Data shown for 1900–1969 are for the nonwhite population. See “Technical Notes” section.<sup>2</sup>Alaska included in 1959 and Hawaii in 1960.<sup>3</sup>Life expectancies for 2000–2006 were calculated using a revised methodology; see text reference 1.<sup>4</sup>Deaths based on a 50-percent sample.<sup>5</sup>Figures by race exclude data for residents of New Jersey; see “Technical Notes” section.

## Technical Notes

*The life table program*—Three series of complete life tables are prepared by the Centers for Disease Control and Prevention's National Center for Health Statistics (NCHS) for the U.S. population: decennial, annual preliminary, and annual final. The U.S. decennial life tables are based on decennial census data and deaths for a 3-year period around the census year. Preliminary life tables are based on a substantial sample (approximately 90 percent) of death records. Estimates of life expectancy from the preliminary series are published annually. The annual final life tables (referred to in this section as annual life tables) are based on a complete count of all reported deaths.

Available since 1945, the annual life tables are based on deaths occurring during the calendar year and on midyear postcensal population estimates provided by the U.S. Census Bureau. From 1945 through 1996, the annual life tables were abridged life tables and were constructed by reference to a standard table (9). Beginning with 1997 mortality data, a new methodology was employed to estimate complete life tables to age 100, with combined life table values presented for ages 100 and over (15). Prior to 1997, the annual life tables were closed at age 85, with ages 85 and over combined. Extension of the oldest age interval was implemented by NCHS for several reasons: survival in the United States is such that over one-third of the population survives beyond age 85, improvements have occurred in age reporting at older ages, and high-quality old-age mortality data are available from the Medicare program.

The annual life tables presented in this report are based on a revised methodology that was used to estimate the 2005 U.S. annual life tables and to revise previously published U.S. annual life tables for years 2000–2004. The revised versions of the annual life tables for years 2000–2004 appear in an appendix of the 2005 U.S. life table report (1). The revised methodology improves upon the methodology developed in 1997 through the use of more precise techniques for the estimation of old age mortality, discussed in greater detail below.

*Geographic coverage*—The geographic areas covered in life tables before 1929–1931 were limited to the death-registration areas. Life tables for 1900–1902 and 1909–1911 were constructed using mortality data from the 1900 death-registration states [10 states and the District of Columbia (D.C.)] and for 1919–1921 from the 1920 death-registration states (34 states and D.C.). The tables for the years 1929–1931 through 1958 cover the coterminous United States. Decennial life table values for the 3-year period 1959–1961 were derived from data that include both Alaska and Hawaii for each year (Tables 10 and 11). Data for each year shown in Table 12 include Alaska beginning in 1959 and Hawaii beginning in 1960. However, it is not believed that the inclusion of these two states materially affects life table values.

*Revised intercensal life table values*—Life table values for 1960–1969, 1970–1979, and 1980–1989 were constructed using the U.S. decennial life tables for 1959–1961, 1969–1971, and 1979–1981, respectively, as the standard tables. The life table values for years prior to 1989 appearing in this publication are based on revised intercensal estimates of the populations for those years. As a result, the life table values for these years may differ from the life table values for the years published in Vital Statistics of the United States for 1989 and earlier years. Life table values for 1991–1999 are based on postcensal population estimates of the population enumerated in the 1990

decennial census, while life table values for 2000–2006 are based on population estimates of the population enumerated in the 2000 decennial census. As a result, life expectancy values across the 1990s are not comparable to those estimated for 2000–2006. A comparison of life expectancy values for 2000 estimated alternately with 1990-based postcensal estimates of the 2000 population and population estimates based on the 2000 census revealed that life expectancy values estimated using the 2000 census population estimates were slightly higher throughout the entire age range (18). Revised life table values for 1991–1999 using new intercensal population estimates based on the 2000 census will be estimated by NCHS in the near future.

*New Jersey data, 1962–1964*—The life tables for 1962 and 1963 for the six race population groups do not include data from New Jersey, which omitted the item on race from its certificates of live birth, death, and fetal death in use at the beginning of 1962. The item was restored during the latter part of 1962. However, the certificate revision without this item was used for most of 1962 as well as for 1963. For computing vital rates, populations by age, race, and sex (excluding New Jersey) were estimated to obtain comparable denominators. Approximately 7 percent of the New Jersey death records for 1964 did not contain the race designation. When the records were being electronically processed for this state, the “race not stated” deaths were proportionally allocated to white or to black.

*Nonresidents*—Beginning in 1970 the deaths of nonresidents of the United States were excluded from the life table statistics.

*Estimation of life table functions*—For some years, it was necessary to estimate life table functions for some race-sex groups. In Tables 10 and 11, figures for the black population during the periods 1949–1951 and 1959–1961 were estimated using figures for the non-white population. Life table functions were also missing in Tables 10 and 11 for race-sex groups for the periods from 1900–1902 to 1939–1941. Figures were missing for the following groups:

| Years               | Race and sex                                  |
|---------------------|-----------------------------------------------|
| 1900–1902 . . . . . | Total white, total black                      |
| 1909–1911 . . . . . | Total white, total black                      |
| 1919–1921 . . . . . | Total, male, female, total white, total black |
| 1929–1931 . . . . . | Total, male, female, total white, total black |

These missing figures were estimated by weighted averages using population distributions as the weights. For example, life expectancy at age 20 for the total black population was estimated by a weighted average of black male and black female life expectancies at age 20, using as weights the population distribution by sex of the black population aged 20.

Annual life tables were initiated in 1945 for white males, white females, all other males, and all other females. The figures in Table 12 by race and sex for the following years were estimated using a procedure other than the abridged life table methodology (19):

| Years               | Race and sex |
|---------------------|--------------|
| 1900–1945 . . . . . | Total        |
| 1900–1947 . . . . . | Male         |
| 1900–1947 . . . . . | Female       |
| 1900–1950 . . . . . | White        |
| 1900–1944 . . . . . | White male   |
| 1900–1944 . . . . . | White female |

Annual life table functions were not calculated for the black population prior to 1970. In Table 12, life expectancy for the black population for years prior to 1970 is estimated using figures for the total nonwhite population.

## Data used for computing life table functions

**Population data**—Populations used for computing life tables shown in this report represent the population residing in the United States, enumerated as of April 1 for census years and estimated as of July 1 for all other years. Life tables for the United States for 2006 are estimated using postcensal estimates published in 2006 based on the 2000 census and estimated as of July 1, 2006. These estimates were produced under a collaborative arrangement with the U.S. Census Bureau and are based on the 2000 census counts by age, race, and sex, modified to be consistent with U.S. Office of Management and Budget racial categories as of 1977 and historical categories for death data (6). The modified procedures are described in detail elsewhere (8). Life tables previously published in annual reports of final data for 1991 to 1999 were based on postcensal population estimates derived from the 1990 census. The 1991–1999 life tables will be reestimated using 2000 census-based intercensal population estimates.

**Medicare data**—Death rates at the oldest ages based on Medicare data are considered to be more accurate than those based on vital statistics and census data. As a result, Medicare data are employed to supplement vital statistics data in the estimation of  $q_x$  for ages 66 and over. The prevalence of age misreporting at the oldest ages in census data has been found to be significant enough to produce underestimated death rates, especially for the African-American population (17). On the other hand, Medicare data are judged to be superior because beneficiaries must prove their date of birth in order to enroll and coverage is extensive (20). Approximately 98 percent of the American population aged 65 and over is enrolled in Medicare Part A, and 96 percent of this is enrolled in Part B. Further, 99 percent of deaths of those aged 65 and over in the United States are accounted for in the Medicare program (21).

Compared with data from other sources, Medicare data are negatively affected by greater numbers of people in the oldest age groups. For instance, the number of people aged 90 and over is greater in Medicare data than in census data (21). This is the result of “phantom records” that arise due to some beneficiaries being registered more than once or because a person’s death was not reported (20). To address this problem, the Medicare data used are restricted to the records of Medicare beneficiaries who are also eligible for Social Security or Railroad Retirement income benefits. This eliminates approximately 3 percent of records from the full Medicare file (20).

To estimate the probability of death for the Medicare population for 2006, age-specific number of deaths and population counts by sex and race for the population aged 66 and over from the 2006 Medicare file were used. This file is created by the Centers for Medicare & Medicaid (CMS) for the Social Security Administration, which, under a special agreement, shares the file with NCHS.

**Vital statistics data**—Death counts used for computing the life tables presented in this report are final number of deaths for 2006 collected from death certificates filed in state vital statistics offices and reported to NCHS as part of the National Vital Statistics System. An adjustment must be made to account for the small proportion of deaths

each year for which age is not reported. The number of deaths in each age category is adjusted proportionally to account for those with not-stated ages. The following factor is used to make the adjustment. This factor ( $F$ ) is calculated for each race-sex group for which life tables are constructed.

$$F = \frac{D}{D^a}, \quad [1]$$

where  $D$  is the total number of deaths and  $D^a$  is the total number of deaths for which age is stated.  $F$  is then applied by multiplying it times the number of deaths in each age group. Table 1 shows values for  $F$  by race and sex used to adjust mortality data for 2006.

## Calculation of the probability of dying ( $q_x$ )

Calculation of the complete life table is derived from the probability of death ( $q_x$ ), which depends on the number of deaths ( $D_x$ ) and the midyear population ( $P_x$ ) for each single year of age ( $x$ ) observed during the calendar year of interest.

**Interpolation of  $P_x$  and  $D_x$** —Anomalies, both random and those associated with reporting age at death, can be problematic when using vital statistics and census data by single years of age to estimate the probability of death (2). Graduation techniques are often used to eliminate these anomalies and to derive a smooth curve by age. Beer’s ordinary minimized fifth difference formula is used to obtain smoothed values of  $P_x$  and  $D_x$  (see reference 2 for details on the application of Beer’s method).

**Calculation of  $q_0$** —Calculated by using a birth cohort method employing a separation factor ( $f$ ) defined as the proportion of infant deaths in year  $t$  occurring to infants born in the previous year ( $t - 1$ ). The value,  $f$  can be calculated by categorizing infant deaths by date of birth. The probability of death in the first year is calculated as

$$q_0 = \frac{D_0(1-f)}{B^t} + \frac{D_0(f)}{B^{t-1}}, \quad [2]$$

where  $D_0$  is the number of infant deaths adjusted for not-reported age, and  $B^t$  and  $B^{t-1}$  are the numbers of births in years  $t$  and  $t - 1$ , respectively. Table II shows separation factors and numbers of births by race and sex for 2005–2006.

**Calculation of  $q_x$  for ages 1–100**—Calculated assuming that  $l_x$  (number of survivors at exact age  $x$  in the life table population) declines linearly between  $x$  and  $x + 1$  (i.e., that deaths between exact age  $x$  and  $x + 1$  occur on average at age  $x + 1/2$ ). This simplification is generally

**Table 1. Values for  $F$  used to adjust for not-stated age based on 2006 mortality data**

| Race and sex     | Total deaths | Total deaths for which age was not stated | $F$        |
|------------------|--------------|-------------------------------------------|------------|
| Total . . . . .  | 2,426,264    | 220                                       | 1.00009068 |
| Male . . . . .   | 1,201,942    | 171                                       | 1.00014229 |
| Female . . . . . | 1,224,322    | 49                                        | 1.00004002 |
| White . . . . .  | 2,077,549    | 179                                       | 1.00008617 |
| Male . . . . .   | 1,022,328    | 142                                       | 1.00013892 |
| Female . . . . . | 1,055,221    | 37                                        | 1.00003506 |
| Black . . . . .  | 289,971      | 32                                        | 1.00011037 |
| Male . . . . .   | 148,602      | 22                                        | 1.00014807 |
| Female . . . . . | 141,369      | 10                                        | 1.00007074 |

**Table II. Births in 2005 and 2006, deaths in 2006 of infants born in 2005 and 2006, and separation factors by race and sex: United States**

|                                          | Total      |           |           | White      |           |           | Black      |         |         |
|------------------------------------------|------------|-----------|-----------|------------|-----------|-----------|------------|---------|---------|
|                                          | Both sexes | Male      | Female    | Both sexes | Male      | Female    | Both sexes | Male    | Female  |
| <b>Births</b>                            |            |           |           |            |           |           |            |         |         |
| 2005 .....                               | 4,138,349  | 2,118,982 | 2,019,367 | 3,229,294  | 1,655,812 | 1,573,482 | 633,134    | 321,259 | 311,875 |
| 2006 .....                               | 4,265,555  | 2,184,237 | 2,081,318 | 3,310,308  | 1,695,870 | 1,614,438 | 666,481    | 339,838 | 326,643 |
| <b>Deaths in 2006 of infants born in</b> |            |           |           |            |           |           |            |         |         |
| 2005 .....                               | 4,395      | 2,451     | 1,944     | 2,896      | 1,615     | 1,281     | 1,280      | 713     | 567     |
| 2006 .....                               | 24,132     | 13,529    | 10,603    | 15,507     | 8,730     | 6,777     | 7,578      | 4,173   | 3,405   |
| <b>Separation factor (<i>f</i>)</b>      |            |           |           |            |           |           |            |         |         |
|                                          | 0.120      | 0.121     | 0.119     | 0.121      | 0.121     | 0.121     | 0.116      | 0.117   | 0.114   |

considered acceptable when age intervals are 1 year in length (4). Under this assumption,  $l_x = L_x + \frac{1}{2}d_x$ , where  $L_x$  is the average life table population at risk of dying between ages  $x$  and  $x+1$  and  $d_x$  is the number of deaths occurring between age  $x$  and  $x+1$ . The value,  $q_x$ , is then

$$q_x = \frac{d_x}{l_x} = \frac{d_x}{L_x + \frac{1}{2}d_x}$$

One can make the same assumption for the observed population, (i.e., that the observed population aged  $x$  at risk of dying at the beginning of the year ( $N_x$ ) declines linearly between ages  $x$  and  $x+1$ ). Under this assumption,  $N_x = P_x + \frac{1}{2}D_x$ , where  $P_x$  is the midyear population or average observed population at risk of dying between ages  $x$  and  $x+1$  and  $D_x$  is the observed number of deaths occurring between ages  $x$  and  $x+1$ . The value,  $q_x$ , is calculated as

$$q_x = \frac{D_x}{N_x} = \frac{D_x}{P_x + \frac{1}{2}D_x}, \quad [3]$$

where  $D_x$  is the observed number of deaths adjusted for not-stated age and  $P_x$  is the observed population at risk of dying between ages  $x$  and  $x+1$ .

*Use of Medicare data at ages 66 to 100*—For ages 66–94, the probability of dying was obtained by blending vital statistics ( $q_x^V$ ) with Medicare ( $q_x^M$ ) through a weighting process that gives gradually declining weight to vital statistics data and gradually increasing weight to Medicare data. For ages 95 to 100, Medicare ( $q_x^M$ ) is used exclusively. For ages 66–100,  $q_x$  is then estimated as

$$q_x = \frac{1}{30} [(95-x) q_x^V + (x-65) q_x^M], \text{ when } x = 66, \dots, 94$$

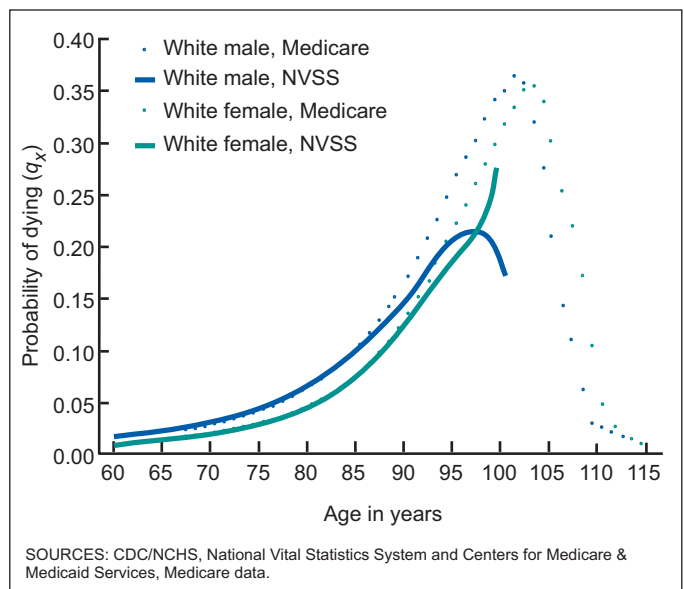
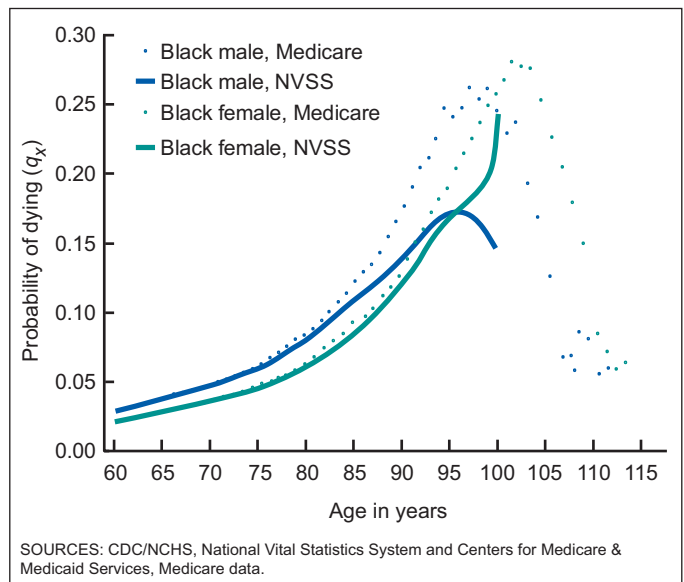
and

$$q_x = q_x^M, \text{ when } x = 95, \dots, 100, \quad [4]$$

where  $q_x$  is a combination of  $q_x^V$  and  $q_x^M$ ,  $q_x^V$  is the probability of dying calculated with formula 3, and  $q_x^M$  is the probability of dying based on Medicare data [see Figures I and II for a comparison of Medicare ( $q_x^M$ ) and vital statistics ( $q_x^V$ ) for white and black males and females in 2006].

*Smoothing combined probabilities of death ( $q_x$ ) at ages 66–100*—

The third component of the Heligman-Pollard model is used to smooth the probabilities of death at ages 66–100. The Heligman-Pollard model

**Figure I. Probability of dying ( $q_x$ ) for the white population aged 60–115: United States, 2006****Figure II. Probability of dying ( $q_x$ ) for the black population aged 60–115: United States, 2006**

is a nonlinear model consisting of three components and eight parameters:

$q_x / 1 - q_x = A^{(x+B)^C} + D \exp[-E(\log x - \log F)^2] + GH^x$ , where, in the first component, parameter  $A$  measures mortality in the first year of life, parameter  $B$  measures the rate of change in mortality from birth to the first year of life, and parameter  $C$  measures the rate of mortality decline in childhood. The second component of the model describes mortality from ages 10 through 40, where an “accident hump” appears, and parameters  $D$ ,  $E$ , and  $F$  measure the location, width, and height of the “accident hump.” Parameters  $G$  and  $H$  in the third component of the model measure mortality levels and changes for ages approximately 40 years and over (22,23).

Using STATA's nonlinear weighted least squares procedure, with weights defined as  $w_x = 1/q_x^2$ ,  $q_x$  was fitted with the third component of the Heligman-Pollard model for ages 65–100 years, where  $q_x^V$  was used for age 65 and  $q_x$  as defined in equation 4 above was used for ages 66–100. The inclusion of  $q_x^V$  for age 65 was the first step taken to ensure a smooth transition between vital  $q_x^V$  and predicted  $q_x$  (defined below). The model was estimated as

$$\frac{q_x}{1 - q_x} = GH^x, \quad [5]$$

where the two fitted parameters  $G$  and  $H$  are used to smooth  $q_x$  for ages 66–100 and extrapolate  $q_x$  for ages 101–130 years. Although the probabilities of death  $q_x^M$  estimated from Medicare data range from age 66 to approximately 115,  $q_x$  was extrapolated to age 130 in order to estimate the life table population until no survivors remain. This information is then used to estimate  $L_x$  for ages 100–130, which is used to close the table with the age category 100 and over, combined (discussed below). Predicted  $\hat{q}_x$  was then estimated as

$$\hat{q}_x = \frac{\hat{G} \hat{H}^x}{1 + \hat{G} \hat{H}^x}, \quad [6]$$

where  $\hat{G}$  and  $\hat{H}$  are the predicted parameters given by fitting model 5. Predicted parameters for 2006 are presented in Table III.

A second step taken to ensure a smooth transition from vital  $q_x^V$  and predicted  $\hat{q}_x$  was to blend predicted  $\hat{q}_x$  and vital  $q_x^V$  from ages 66–74 with a graduating process:

$$q_x = \frac{1}{10} [(75 - x) q_x^V + (x - 65) \hat{q}_x], \text{ when } x = 66, \dots, 74. \quad [7]$$

Finally, to close the table at age 100 and over (combined),  ${}_0q_{100}$  is set equal to 1.0 because all survivors to this age will die at some point in the open-ended age interval. Once  $q_x$  is obtained for each single year of age, the other life table functions may be easily calculated.

## Calculation of remaining life table functions

**Survivor function ( $l_x$ )**—The life table radix,  $l_0$ , is set at 100,000. For ages greater than 0, the number of survivors remaining at exact age  $x$  is calculated as

$$l_x = l_{x-1}(1 - q_{x-1}). \quad [8]$$

**Decrement function ( $d_x$ )**—The number of deaths occurring between age  $x$  and  $x + 1$  is calculated from the survivor function:

$$d_x = l_x - l_{x+1} = l_x q_x. \quad [9]$$

Note that  ${}_0d_{100} = {}_0l_{100}$  since  ${}_0q_{100} = 1.0$ .

**Person-years lived ( $L_x$ )**—Calculated for ages 1 to 99 assuming that the survivor function declines linearly between age  $x$  and  $x + 1$ . This gives the formula

$$L_x = \frac{1}{2} (l_x + l_{x+1}) = l_x - \frac{1}{2} d_x. \quad [10]$$

For  $x = 0$ , the separation factor  $f$  is used to calculate  $L_0$ :

$$L_0 = f l_0 + (1 - f) l_1. \quad [11]$$

Finally,  ${}_0L_{100}$  is estimated as the sum of the extrapolated  $L_x$  values for ages 100 to 130.

**Person-years lived at and above age  $x$  ( $T_x$ )**—Calculated by summing  $L_x$  values at and above age  $x$ :

$$T_x = \sum_{x=0}^{\infty} L_x. \quad [12]$$

**Life expectancy at age  $x$  ( $e_x$ )**—Calculated as

$$e_x = \frac{T_x}{l_x}. \quad [13]$$

## Abridging the complete life table

An abridged or collapsed version of the complete life table can be easily calculated in which life table functions are shown for 5-year rather than single-year age intervals. It is often desirable to summarize the life table and save space when publishing life table data by single age years. The abridgement of the complete life table is simplified by an important property of three of the six life table functions. The  $l_x$ ,  $T_x$ , and  $e_x$  functions describe exact age  $x$ , that is, the beginning of the age interval  $x$  to  $x + n$  ( $n$  denotes the length of

**Table III. Estimated parameters  $G$  and  $H$  used for predicting  $q_x$  for ages 66–130: U.S. life tables, 2006**

|                    | Population |           |           |           |            |              |           |            |              |
|--------------------|------------|-----------|-----------|-----------|------------|--------------|-----------|------------|--------------|
|                    | Total      | Male      | Female    | White     | White male | White female | Black     | Black male | Black female |
| <i>G</i> . . . . . | 0.0000141  | 0.0000205 | 0.0000072 | 0.0000121 | 0.0000168  | 0.0000062    | 0.0000923 | 0.0001892  | 0.0000416    |
| <i>H</i> . . . . . | 1.1101     | 1.1077    | 1.1173    | 1.1122    | 1.1103     | 1.1193       | 1.0862    | 1.0797     | 1.0948       |

the age interval for 5-year age intervals  $n = 5$ ). Life expectancy at age 20 ( $e_{20}$ ), for example, has the same value regardless of whether the age interval is 20–21 or 20–25. Thus, the values  $l_x$ ,  $T_x$ , and  $e_x$  can be extracted at 5-year intervals from the complete life table and placed into the abridged life table (compare  $l_x$ ,  $T_x$ , and  $e_x$  in Table IV with the same functions in Table 1). It is also illustrative to compare values for  $e_x$  and  $l_x$  in Tables A and B with their corresponding values presented in Tables 1–9. The  $q_x$ ,  $d_x$ , and  $L_x$  functions, in contrast, describe the age interval  $x$  to  $x + n$ . In fact, for abridged life tables, the notation for these functions is different ( ${}_nq_x$ ,  ${}_nd_x$ ,  ${}_nL_x$ ). Thus,  ${}_5q_{20}$  is the probability of dying between ages 20 and 25 and will obviously be somewhat larger than  $q_{20}$ , the probability of dying between ages 20 and 21. Taking this into account,  ${}_nq_x$ ,  ${}_nd_x$ , and  ${}_nL_x$  must be recalculated in the

abridged life table. It is simplest to begin with  ${}_nd_x$ . The calculations are made for all but the final age interval as

$${}_nd_x = l_x - l_{x+n}$$

$${}_nq_x = \frac{{}_nd_x}{{}_nl_x}$$

$${}_nL_x = T_x - T_{x+n}$$

Note that for the open-ended interval, ages 100 and over,  ${}_{\infty}d_{100} = l_{100}$ ,  ${}_{\infty}q_{100} = 1.0$ , and  ${}_{\infty}L_{100} = T_{100}$ . Table IV shows each of the life table functions for the 2006 U.S. total population abridged from Table 1.

**Table IV. Life table for the total population: United States, 2006**

| Age                    | Probability<br>of dying<br>between<br>ages $x$ to $x+n$<br>${}_nq_x$ | Number<br>surviving to<br>age $x$<br>$l_x$ | Number<br>dying<br>between<br>ages $x$ to $x+n$<br>${}_nd_x$ | Person-years<br>lived<br>between<br>ages $x$ to $x+n$<br>${}_nL_x$ | Total<br>number of<br>person-years<br>lived above<br>age $x$<br>$T_x$ | Expectation<br>of life<br>at age $x$<br>$e_x$ |
|------------------------|----------------------------------------------------------------------|--------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------|
| 0–1 . . . . .          | 0.006713                                                             | 100,000                                    | 671                                                          | 99,409                                                             | 7,770,850                                                             | 77.7                                          |
| 1–4 . . . . .          | 0.001138                                                             | 99,329                                     | 113                                                          | 397,045                                                            | 7,671,441                                                             | 77.2                                          |
| 5–9 . . . . .          | 0.000694                                                             | 99,216                                     | 69                                                           | 495,891                                                            | 7,274,396                                                             | 73.3                                          |
| 10–14 . . . . .        | 0.000822                                                             | 99,147                                     | 81                                                           | 495,587                                                            | 6,778,505                                                             | 68.4                                          |
| 15–19 . . . . .        | 0.003214                                                             | 99,065                                     | 318                                                          | 494,627                                                            | 6,282,918                                                             | 63.4                                          |
| 20–24 . . . . .        | 0.004998                                                             | 98,747                                     | 494                                                          | 492,532                                                            | 5,788,291                                                             | 58.6                                          |
| 25–29 . . . . .        | 0.005033                                                             | 98,253                                     | 495                                                          | 490,029                                                            | 5,295,759                                                             | 53.9                                          |
| 30–34 . . . . .        | 0.005583                                                             | 97,759                                     | 546                                                          | 487,470                                                            | 4,805,730                                                             | 49.2                                          |
| 35–39 . . . . .        | 0.007389                                                             | 97,213                                     | 718                                                          | 484,380                                                            | 4,318,260                                                             | 44.4                                          |
| 40–44 . . . . .        | 0.011381                                                             | 96,495                                     | 1,098                                                        | 479,916                                                            | 3,833,880                                                             | 39.7                                          |
| 45–49 . . . . .        | 0.017264                                                             | 95,397                                     | 1,647                                                        | 473,118                                                            | 3,353,964                                                             | 35.2                                          |
| 50–54 . . . . .        | 0.025576                                                             | 93,750                                     | 2,398                                                        | 463,087                                                            | 2,880,846                                                             | 30.7                                          |
| 55–59 . . . . .        | 0.036064                                                             | 91,352                                     | 3,295                                                        | 448,955                                                            | 2,417,759                                                             | 26.5                                          |
| 60–64 . . . . .        | 0.054578                                                             | 88,057                                     | 4,806                                                        | 428,979                                                            | 1,968,804                                                             | 22.4                                          |
| 65–69 . . . . .        | 0.079166                                                             | 83,251                                     | 6,591                                                        | 400,600                                                            | 1,539,825                                                             | 18.5                                          |
| 70–74 . . . . .        | 0.121699                                                             | 76,661                                     | 9,330                                                        | 361,363                                                            | 1,139,225                                                             | 14.9                                          |
| 75–79 . . . . .        | 0.195009                                                             | 67,331                                     | 13,130                                                       | 305,372                                                            | 777,862                                                               | 11.6                                          |
| 80–84 . . . . .        | 0.302509                                                             | 54,201                                     | 16,396                                                       | 230,960                                                            | 472,489                                                               | 8.7                                           |
| 85–89 . . . . .        | 0.447212                                                             | 37,805                                     | 16,907                                                       | 146,101                                                            | 241,530                                                               | 6.4                                           |
| 90–94 . . . . .        | 0.617641                                                             | 20,898                                     | 12,907                                                       | 69,775                                                             | 95,429                                                                | 4.6                                           |
| 95–99 . . . . .        | 0.782678                                                             | 7,991                                      | 6,254                                                        | 21,745                                                             | 25,654                                                                | 3.2                                           |
| 100 and over . . . . . | 1.000000                                                             | 1,737                                      | 1,737                                                        | 3,909                                                              | 3,909                                                                 | 2.3                                           |

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## Acknowledgments

This report was prepared under the general direction of Charles J. Rothwell, Director, Division of Vital Statistics, and Robert N. Anderson, Chief, Mortality Statistics Branch. Content review was provided by Vanetta Harrington, CDC/NIOSH/DSHEFS. This report was edited by Betsy M. Finley and Demarius V. Miller, CDC/NCHM/Division of Creative Services, Writer-Editor Services Branch, and typeset by Jacqueline M. Davis, CDC/OSELS/NCHS/OD/Office of Information Services, Information Design and Publishing Staff; graphics were produced by Travis Torina, CDC/OSELS/NCHS/OD/Office of Information Services, Information Design and Publishing Staff, NOVA contractor.

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## Suggested citation

Arias E. United States life tables, 2006. National vital statistics reports; vol 58 no 21. Hyattsville, MD: National Center for Health Statistics. 2010.

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CS212269  
T36603 (06/2010)  
DHHS Publication No. (PHS) 2010-1120

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