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United States Life Tables, 2007

by Elizabeth Arias, Ph.D., Division of Vital Statistics

Abstract

Objectives—This report presents complete period life tables by race, Hispanic origin, and sex for the United States based on age-specific death rates in 2007.

Methods—Data used to prepare the 2007 life tables are 2007 final mortality statistics, July 1, 2007, population estimates based on the 2000 decennial census, and 2007 Medicare data for ages 66–100. The methods used to estimate the life tables for the total, white, and black populations were first used in annual life tables in 2005 and have been in use since that time (1). The methods used to estimate the life tables for the Hispanic, non-Hispanic white, and non-Hispanic black populations were first used to estimate U.S. life tables by Hispanic origin for data year 2006 (2).

Results—In 2007, the overall expectation of life at birth was 77.9 years, representing an increase of 0.2 years from life expectancy in 2006. From 2006 to 2007, life expectancy at birth increased for all groups considered. It increased for males (from 75.1 to 75.4) and females (from 80.2 to 80.4), the white (from 78.2 to 78.4) and black (from 73.2 to 73.6) populations, the Hispanic population (from 80.6 to 80.9), the non-Hispanic white population (from 78.1 to 78.2), and the non-Hispanic black population (from 72.9 to 73.2).

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 incom-

pleteness (3). 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 (4,5).

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 cohort if it experienced throughout its entire life the mortality conditions of a particular time period. Thus, for example, a period life table for 2007 assumes a hypothetical cohort subject throughout its lifetime to the age-specific death rates prevailing for the actual population in 2007. 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.

This report presents period life tables by race, Hispanic origin, race for the non-Hispanic population, and sex. Historically, the U.S. life table program had been limited to the inclusion of life tables for the white and black populations. As a result of data limitations, life tables for other racial and ethnic populations had not been produced. Recent research into these data limitations identified and quantified them and led to the development of methodological strategies to overcome their effect and allow for the production of life tables for the Hispanic population (2,6,7). The first U.S. life tables by Hispanic origin were published in “United States Life Tables by Hispanic Origin” for data year 2006 (2). The methodology developed and described in that report is used in this report to produce U.S. life tables for the Hispanic, non-Hispanic white, and non-Hispanic black populations (see “[Technical Notes](#)” for detailed discussion of the methodology).

Data and Methods

The data used to prepare the U.S. life tables for 2007 are final numbers of deaths for the year 2007, postcensal population estimates for the year 2007, and age-specific death and population counts for Medicare beneficiaries aged 66–100 for the year 2007 from the Centers for Medicare & Medicaid Services. Data from the



Table 1. Life table for the total population: United States, 2007Spreadsheet version available from: http://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/59_09/Table01.xls.

| | Probability of dying between ages x to $x + 1$ | Number surviving to age x | Number dying between ages x to $x + 1$ | Person-years lived between ages x to $x + 1$ | Total number of person-years lived above age x | Expectation of life at age x |
|-------|---|-----------------------------------|---|---|--|--------------------------------------|
| Age | q_x | l_x | d_x | L_x | T_x | e_x |
| 0-1 | 0.006761 | 100,000 | 676 | 99,406 | 7,793,398 | 77.9 |
| 1-2 | 0.000460 | 99,324 | 46 | 99,301 | 7,693,992 | 77.5 |
| 2-3 | 0.000286 | 99,278 | 28 | 99,264 | 7,594,691 | 76.5 |
| 3-4 | 0.000218 | 99,250 | 22 | 99,239 | 7,495,427 | 75.5 |
| 4-5 | 0.000176 | 99,228 | 17 | 99,219 | 7,396,188 | 74.5 |
| 5-6 | 0.000164 | 99,211 | 16 | 99,203 | 7,296,969 | 73.6 |
| 6-7 | 0.000151 | 99,194 | 15 | 99,187 | 7,197,766 | 72.6 |
| 7-8 | 0.000140 | 99,179 | 14 | 99,173 | 7,098,579 | 71.6 |
| 8-9 | 0.000124 | 99,166 | 12 | 99,159 | 6,999,407 | 70.6 |
| 9-10 | 0.000105 | 99,153 | 10 | 99,148 | 6,900,247 | 69.6 |
| 10-11 | 0.000091 | 99,143 | 9 | 99,138 | 6,801,099 | 68.6 |
| 11-12 | 0.000094 | 99,134 | 9 | 99,129 | 6,701,961 | 67.6 |
| 12-13 | 0.000132 | 99,125 | 13 | 99,118 | 6,602,831 | 66.6 |
| 13-14 | 0.000209 | 99,112 | 21 | 99,101 | 6,503,713 | 65.6 |
| 14-15 | 0.000314 | 99,091 | 31 | 99,075 | 6,404,612 | 64.6 |
| 15-16 | 0.000426 | 99,060 | 42 | 99,039 | 6,305,537 | 63.7 |
| 16-17 | 0.000529 | 99,018 | 52 | 98,991 | 6,206,498 | 62.7 |
| 17-18 | 0.000627 | 98,965 | 62 | 98,934 | 6,107,506 | 61.7 |
| 18-19 | 0.000715 | 98,903 | 71 | 98,868 | 6,008,572 | 60.8 |
| 19-20 | 0.000796 | 98,832 | 79 | 98,793 | 5,909,705 | 59.8 |
| 20-21 | 0.000881 | 98,754 | 87 | 98,710 | 5,810,911 | 58.8 |
| 21-22 | 0.000963 | 98,667 | 95 | 98,619 | 5,712,201 | 57.9 |
| 22-23 | 0.001017 | 98,572 | 100 | 98,522 | 5,613,582 | 56.9 |
| 23-24 | 0.001034 | 98,472 | 102 | 98,421 | 5,515,060 | 56.0 |
| 24-25 | 0.001023 | 98,370 | 101 | 98,320 | 5,416,639 | 55.1 |
| 25-26 | 0.001003 | 98,269 | 99 | 98,220 | 5,318,320 | 54.1 |
| 26-27 | 0.000990 | 98,171 | 97 | 98,122 | 5,220,100 | 53.2 |
| 27-28 | 0.000983 | 98,074 | 96 | 98,025 | 5,121,978 | 52.2 |
| 28-29 | 0.000988 | 97,977 | 97 | 97,929 | 5,023,952 | 51.3 |
| 29-30 | 0.001005 | 97,880 | 98 | 97,831 | 4,926,023 | 50.3 |
| 30-31 | 0.001030 | 97,782 | 101 | 97,732 | 4,828,192 | 49.4 |
| 31-32 | 0.001060 | 97,681 | 104 | 97,630 | 4,730,460 | 48.4 |
| 32-33 | 0.001099 | 97,578 | 107 | 97,524 | 4,632,831 | 47.5 |
| 33-34 | 0.001146 | 97,471 | 112 | 97,415 | 4,535,307 | 46.5 |
| 34-35 | 0.001201 | 97,359 | 117 | 97,300 | 4,437,892 | 45.6 |
| 35-36 | 0.001264 | 97,242 | 123 | 97,180 | 4,340,592 | 44.6 |
| 36-37 | 0.001340 | 97,119 | 130 | 97,054 | 4,243,412 | 43.7 |
| 37-38 | 0.001434 | 96,989 | 139 | 96,919 | 4,146,358 | 42.8 |
| 38-39 | 0.001548 | 96,850 | 150 | 96,775 | 4,049,438 | 41.8 |
| 39-40 | 0.001685 | 96,700 | 163 | 96,618 | 3,952,664 | 40.9 |
| 40-41 | 0.001836 | 96,537 | 177 | 96,448 | 3,856,045 | 39.9 |
| 41-42 | 0.002000 | 96,360 | 193 | 96,263 | 3,759,597 | 39.0 |
| 42-43 | 0.002188 | 96,167 | 210 | 96,062 | 3,663,334 | 38.1 |
| 43-44 | 0.002400 | 95,956 | 230 | 95,841 | 3,567,272 | 37.2 |
| 44-45 | 0.002629 | 95,726 | 252 | 95,600 | 3,471,431 | 36.3 |
| 45-46 | 0.002864 | 95,475 | 273 | 95,338 | 3,375,831 | 35.4 |
| 46-47 | 0.003107 | 95,201 | 296 | 95,053 | 3,280,493 | 34.5 |
| 47-48 | 0.003369 | 94,905 | 320 | 94,745 | 3,185,440 | 33.6 |
| 48-49 | 0.003661 | 94,586 | 346 | 94,412 | 3,090,694 | 32.7 |
| 49-50 | 0.003984 | 94,239 | 375 | 94,052 | 2,996,282 | 31.8 |
| 50-51 | 0.004337 | 93,864 | 407 | 93,660 | 2,902,230 | 30.9 |
| 51-52 | 0.004709 | 93,457 | 440 | 93,237 | 2,808,570 | 30.1 |
| 52-53 | 0.005091 | 93,017 | 474 | 92,780 | 2,715,333 | 29.2 |
| 53-54 | 0.005474 | 92,543 | 507 | 92,290 | 2,622,553 | 28.3 |
| 54-55 | 0.005863 | 92,037 | 540 | 91,767 | 2,530,263 | 27.5 |
| 55-56 | 0.006275 | 91,497 | 574 | 91,210 | 2,438,496 | 26.7 |
| 56-57 | 0.006726 | 90,923 | 612 | 90,617 | 2,347,286 | 25.8 |
| 57-58 | 0.007220 | 90,311 | 652 | 89,985 | 2,256,669 | 25.0 |
| 58-59 | 0.007773 | 89,659 | 697 | 89,311 | 2,166,684 | 24.2 |
| 59-60 | 0.008389 | 88,962 | 746 | 88,589 | 2,077,373 | 23.4 |
| 60-61 | 0.009081 | 88,216 | 801 | 87,816 | 1,988,784 | 22.5 |
| 61-62 | 0.009839 | 87,415 | 860 | 86,985 | 1,900,968 | 21.7 |
| 62-63 | 0.010657 | 86,555 | 922 | 86,094 | 1,813,983 | 21.0 |
| 63-64 | 0.011534 | 85,632 | 988 | 85,139 | 1,727,890 | 20.2 |
| 64-65 | 0.012491 | 84,645 | 1,057 | 84,116 | 1,642,751 | 19.4 |

Table 1. Life table for the total population: United States, 2007—Con.Spreadsheet version available from: ftp://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/59_09/Table01.xls.

| | Probability of dying between ages x to $x + 1$ | Number surviving to age x | Number dying between ages x to $x + 1$ | Person-years lived between ages x to $x + 1$ | Total number of person-years lived above age x | Expectation of life at age x |
|------------------------|---|-----------------------------------|---|---|--|--------------------------------------|
| Age | q_x | l_x | d_x | L_x | T_x | e_x |
| 65-66 | 0.013600 | 83,587 | 1,137 | 83,019 | 1,558,635 | 18.6 |
| 66-67 | 0.014722 | 82,451 | 1,214 | 81,844 | 1,475,616 | 17.9 |
| 67-68 | 0.015959 | 81,237 | 1,296 | 80,589 | 1,393,772 | 17.2 |
| 68-69 | 0.017288 | 79,940 | 1,382 | 79,249 | 1,313,183 | 16.4 |
| 69-70 | 0.018755 | 78,558 | 1,473 | 77,822 | 1,233,934 | 15.7 |
| 70-71 | 0.020424 | 77,085 | 1,574 | 76,298 | 1,156,112 | 15.0 |
| 71-72 | 0.022385 | 75,511 | 1,690 | 74,666 | 1,079,814 | 14.3 |
| 72-73 | 0.024679 | 73,820 | 1,822 | 72,909 | 1,005,149 | 13.6 |
| 73-74 | 0.027320 | 71,999 | 1,967 | 71,015 | 932,239 | 12.9 |
| 74-75 | 0.030299 | 70,032 | 2,122 | 68,971 | 861,224 | 12.3 |
| 75-76 | 0.033636 | 67,910 | 2,284 | 66,768 | 792,254 | 11.7 |
| 76-77 | 0.037216 | 65,625 | 2,442 | 64,404 | 725,486 | 11.1 |
| 77-78 | 0.041160 | 63,183 | 2,601 | 61,883 | 661,082 | 10.5 |
| 78-79 | 0.045503 | 60,583 | 2,757 | 59,204 | 599,199 | 9.9 |
| 79-80 | 0.050281 | 57,826 | 2,908 | 56,372 | 539,995 | 9.3 |
| 80-81 | 0.055531 | 54,918 | 3,050 | 53,393 | 483,622 | 8.8 |
| 81-82 | 0.061293 | 51,869 | 3,179 | 50,279 | 430,229 | 8.3 |
| 82-83 | 0.067611 | 48,689 | 3,292 | 47,044 | 379,950 | 7.8 |
| 83-84 | 0.074528 | 45,398 | 3,383 | 43,706 | 332,906 | 7.3 |
| 84-85 | 0.082091 | 42,014 | 3,449 | 40,290 | 289,201 | 6.9 |
| 85-86 | 0.090346 | 38,565 | 3,484 | 36,823 | 248,911 | 6.5 |
| 86-87 | 0.099341 | 35,081 | 3,485 | 33,338 | 212,088 | 6.0 |
| 87-88 | 0.109125 | 31,596 | 3,448 | 29,872 | 178,749 | 5.7 |
| 88-89 | 0.119744 | 28,148 | 3,371 | 26,463 | 148,877 | 5.3 |
| 89-90 | 0.131244 | 24,778 | 3,252 | 23,152 | 122,415 | 4.9 |
| 90-91 | 0.143668 | 21,526 | 3,093 | 19,979 | 99,263 | 4.6 |
| 91-92 | 0.157056 | 18,433 | 2,895 | 16,986 | 79,284 | 4.3 |
| 92-93 | 0.171442 | 15,538 | 2,664 | 14,206 | 62,298 | 4.0 |
| 93-94 | 0.186853 | 12,874 | 2,406 | 11,671 | 48,092 | 3.7 |
| 94-95 | 0.203309 | 10,469 | 2,128 | 9,404 | 36,420 | 3.5 |
| 95-96 | 0.220822 | 8,340 | 1,842 | 7,419 | 27,016 | 3.2 |
| 96-97 | 0.239389 | 6,499 | 1,556 | 5,721 | 19,597 | 3.0 |
| 97-98 | 0.258999 | 4,943 | 1,280 | 4,303 | 13,876 | 2.8 |
| 98-99 | 0.279625 | 3,663 | 1,024 | 3,151 | 9,573 | 2.6 |
| 99-100 | 0.301225 | 2,638 | 795 | 2,241 | 6,422 | 2.4 |
| 100 and over | 1.000000 | 1,844 | 1,844 | 4,181 | 4,181 | 2.3 |

Table 2. Life table for males: United States, 2007Spreadsheet version available from: http://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/59_09/Table02.xls.

| | Probability of dying between ages x to $x + 1$ | Number surviving to age x | Number dying between ages x to $x + 1$ | Person-years lived between ages x to $x + 1$ | Total number of person-years lived above age x | Expectation of life at age x |
|-------|---|-----------------------------------|---|---|--|--------------------------------------|
| Age | q_x | l_x | d_x | L_x | T_x | e_x |
| 0-1 | 0.007390 | 100,000 | 739 | 99,352 | 7,537,883 | 75.4 |
| 1-2 | 0.000490 | 99,261 | 49 | 99,237 | 7,438,531 | 74.9 |
| 2-3 | 0.000316 | 99,212 | 31 | 99,197 | 7,339,295 | 74.0 |
| 3-4 | 0.000242 | 99,181 | 24 | 99,169 | 7,240,098 | 73.0 |
| 4-5 | 0.000201 | 99,157 | 20 | 99,147 | 7,140,929 | 72.0 |
| 5-6 | 0.000182 | 99,137 | 18 | 99,128 | 7,041,782 | 71.0 |
| 6-7 | 0.000170 | 99,119 | 17 | 99,111 | 6,942,654 | 70.0 |
| 7-8 | 0.000156 | 99,102 | 15 | 99,095 | 6,843,543 | 69.1 |
| 8-9 | 0.000134 | 99,087 | 13 | 99,080 | 6,744,448 | 68.1 |
| 9-10 | 0.000107 | 99,074 | 11 | 99,068 | 6,645,368 | 67.1 |
| 10-11 | 0.000085 | 99,063 | 8 | 99,059 | 6,546,300 | 66.1 |
| 11-12 | 0.000089 | 99,055 | 9 | 99,050 | 6,447,241 | 65.1 |
| 12-13 | 0.000143 | 99,046 | 14 | 99,039 | 6,348,191 | 64.1 |
| 13-14 | 0.000256 | 99,032 | 25 | 99,019 | 6,249,153 | 63.1 |
| 14-15 | 0.000411 | 99,006 | 41 | 98,986 | 6,150,134 | 62.1 |
| 15-16 | 0.000573 | 98,966 | 57 | 98,937 | 6,051,148 | 61.1 |
| 16-17 | 0.000725 | 98,909 | 72 | 98,873 | 5,952,211 | 60.2 |
| 17-18 | 0.000873 | 98,837 | 86 | 98,794 | 5,853,338 | 59.2 |
| 18-19 | 0.001014 | 98,751 | 100 | 98,701 | 5,754,544 | 58.3 |
| 19-20 | 0.001149 | 98,651 | 113 | 98,594 | 5,655,843 | 57.3 |
| 20-21 | 0.001292 | 98,537 | 127 | 98,474 | 5,557,249 | 56.4 |
| 21-22 | 0.001427 | 98,410 | 140 | 98,340 | 5,458,775 | 55.5 |
| 22-23 | 0.001512 | 98,270 | 149 | 98,195 | 5,360,435 | 54.5 |
| 23-24 | 0.001529 | 98,121 | 150 | 98,046 | 5,262,240 | 53.6 |
| 24-25 | 0.001497 | 97,971 | 147 | 97,898 | 5,164,194 | 52.7 |
| 25-26 | 0.001448 | 97,824 | 142 | 97,754 | 5,066,296 | 51.8 |
| 26-27 | 0.001409 | 97,683 | 138 | 97,614 | 4,968,543 | 50.9 |
| 27-28 | 0.001382 | 97,545 | 135 | 97,478 | 4,870,929 | 49.9 |
| 28-29 | 0.001376 | 97,410 | 134 | 97,343 | 4,773,451 | 49.0 |
| 29-30 | 0.001390 | 97,276 | 135 | 97,209 | 4,676,108 | 48.1 |
| 30-31 | 0.001412 | 97,141 | 137 | 97,072 | 4,578,899 | 47.1 |
| 31-32 | 0.001437 | 97,004 | 139 | 96,934 | 4,481,827 | 46.2 |
| 32-33 | 0.001474 | 96,864 | 143 | 96,793 | 4,384,893 | 45.3 |
| 33-34 | 0.001516 | 96,722 | 147 | 96,648 | 4,288,100 | 44.3 |
| 34-35 | 0.001570 | 96,575 | 152 | 96,499 | 4,191,451 | 43.4 |
| 35-36 | 0.001634 | 96,423 | 158 | 96,345 | 4,094,952 | 42.5 |
| 36-37 | 0.001716 | 96,266 | 165 | 96,183 | 3,998,607 | 41.5 |
| 37-38 | 0.001821 | 96,101 | 175 | 96,013 | 3,902,424 | 40.6 |
| 38-39 | 0.001956 | 95,926 | 188 | 95,832 | 3,806,411 | 39.7 |
| 39-40 | 0.002120 | 95,738 | 203 | 95,636 | 3,710,579 | 38.8 |
| 40-41 | 0.002303 | 95,535 | 220 | 95,425 | 3,614,943 | 37.8 |
| 41-42 | 0.002505 | 95,315 | 239 | 95,196 | 3,519,518 | 36.9 |
| 42-43 | 0.002735 | 95,076 | 260 | 94,946 | 3,424,322 | 36.0 |
| 43-44 | 0.002992 | 94,816 | 284 | 94,674 | 3,329,376 | 35.1 |
| 44-45 | 0.003270 | 94,533 | 309 | 94,378 | 3,234,702 | 34.2 |
| 45-46 | 0.003556 | 94,223 | 335 | 94,056 | 3,140,324 | 33.3 |
| 46-47 | 0.003855 | 93,888 | 362 | 93,707 | 3,046,268 | 32.4 |
| 47-48 | 0.004187 | 93,526 | 392 | 93,331 | 2,952,560 | 31.6 |
| 48-49 | 0.004570 | 93,135 | 426 | 92,922 | 2,859,230 | 30.7 |
| 49-50 | 0.005001 | 92,709 | 464 | 92,477 | 2,766,308 | 29.8 |
| 50-51 | 0.005474 | 92,246 | 505 | 91,993 | 2,673,831 | 29.0 |
| 51-52 | 0.005969 | 91,741 | 548 | 91,467 | 2,581,838 | 28.1 |
| 52-53 | 0.006473 | 91,193 | 590 | 90,898 | 2,490,371 | 27.3 |
| 53-54 | 0.006971 | 90,603 | 632 | 90,287 | 2,399,473 | 26.5 |
| 54-55 | 0.007469 | 89,971 | 672 | 89,635 | 2,309,186 | 25.7 |
| 55-56 | 0.007995 | 89,299 | 714 | 88,942 | 2,219,551 | 24.9 |
| 56-57 | 0.008567 | 88,585 | 759 | 88,206 | 2,130,609 | 24.1 |
| 57-58 | 0.009179 | 87,826 | 806 | 87,423 | 2,042,403 | 23.3 |
| 58-59 | 0.009843 | 87,020 | 857 | 86,592 | 1,954,980 | 22.5 |
| 59-60 | 0.010571 | 86,164 | 911 | 85,708 | 1,868,389 | 21.7 |
| 60-61 | 0.011378 | 85,253 | 970 | 84,768 | 1,782,680 | 20.9 |
| 61-62 | 0.012264 | 84,283 | 1,034 | 83,766 | 1,697,913 | 20.1 |
| 62-63 | 0.013227 | 83,249 | 1,101 | 82,699 | 1,614,147 | 19.4 |
| 63-64 | 0.014275 | 82,148 | 1,173 | 81,562 | 1,531,448 | 18.6 |
| 64-65 | 0.015434 | 80,975 | 1,250 | 80,350 | 1,449,887 | 17.9 |

Table 2. Life table for males: United States, 2007—Con.Spreadsheet version available from: http://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/59_09/Table02.xls.

| | Probability of dying between ages x to $x + 1$ | Number surviving to age x | Number dying between ages x to $x + 1$ | Person-years lived between ages x to $x + 1$ | Total number of person-years lived above age x | Expectation of life at age x |
|------------------------|---|-----------------------------------|---|---|--|--------------------------------------|
| Age | q_x | l_x | d_x | L_x | T_x | e_x |
| 65–66 | 0.016771 | 79,726 | 1,337 | 79,057 | 1,369,536 | 17.2 |
| 66–67 | 0.018156 | 78,388 | 1,423 | 77,677 | 1,290,479 | 16.5 |
| 67–68 | 0.019682 | 76,965 | 1,515 | 76,208 | 1,212,802 | 15.8 |
| 68–69 | 0.021327 | 75,450 | 1,609 | 74,646 | 1,136,594 | 15.1 |
| 69–70 | 0.023144 | 73,841 | 1,709 | 72,987 | 1,061,948 | 14.4 |
| 70–71 | 0.025204 | 72,132 | 1,818 | 71,223 | 988,962 | 13.7 |
| 71–72 | 0.027616 | 70,314 | 1,942 | 69,343 | 917,738 | 13.1 |
| 72–73 | 0.030417 | 68,373 | 2,080 | 67,333 | 848,395 | 12.4 |
| 73–74 | 0.033598 | 66,293 | 2,227 | 65,179 | 781,062 | 11.8 |
| 74–75 | 0.037153 | 64,066 | 2,380 | 62,875 | 715,883 | 11.2 |
| 75–76 | 0.041097 | 61,685 | 2,535 | 60,418 | 653,008 | 10.6 |
| 76–77 | 0.045315 | 59,150 | 2,680 | 57,810 | 592,590 | 10.0 |
| 77–78 | 0.049944 | 56,470 | 2,820 | 55,060 | 534,780 | 9.5 |
| 78–79 | 0.055019 | 53,649 | 2,952 | 52,174 | 479,720 | 8.9 |
| 79–80 | 0.060576 | 50,698 | 3,071 | 49,162 | 427,547 | 8.4 |
| 80–81 | 0.066655 | 47,627 | 3,175 | 46,039 | 378,384 | 7.9 |
| 81–82 | 0.073296 | 44,452 | 3,258 | 42,823 | 332,345 | 7.5 |
| 82–83 | 0.080542 | 41,194 | 3,318 | 39,535 | 289,522 | 7.0 |
| 83–84 | 0.088435 | 37,876 | 3,350 | 36,201 | 249,987 | 6.6 |
| 84–85 | 0.097021 | 34,527 | 3,350 | 32,852 | 213,785 | 6.2 |
| 85–86 | 0.106343 | 31,177 | 3,315 | 29,519 | 180,934 | 5.8 |
| 86–87 | 0.116446 | 27,861 | 3,244 | 26,239 | 151,415 | 5.4 |
| 87–88 | 0.127371 | 24,617 | 3,135 | 23,049 | 125,175 | 5.1 |
| 88–89 | 0.139160 | 21,482 | 2,989 | 19,987 | 102,126 | 4.8 |
| 89–90 | 0.151850 | 18,492 | 2,808 | 17,088 | 82,139 | 4.4 |
| 90–91 | 0.165475 | 15,684 | 2,595 | 14,386 | 65,051 | 4.1 |
| 91–92 | 0.180063 | 13,089 | 2,357 | 11,910 | 50,665 | 3.9 |
| 92–93 | 0.195635 | 10,732 | 2,100 | 9,682 | 38,754 | 3.6 |
| 93–94 | 0.212205 | 8,632 | 1,832 | 7,717 | 29,072 | 3.4 |
| 94–95 | 0.229779 | 6,801 | 1,563 | 6,019 | 21,355 | 3.1 |
| 95–96 | 0.248348 | 5,238 | 1,301 | 4,588 | 15,336 | 2.9 |
| 96–97 | 0.267897 | 3,937 | 1,055 | 3,410 | 10,749 | 2.7 |
| 97–98 | 0.288394 | 2,882 | 831 | 2,467 | 7,339 | 2.5 |
| 98–99 | 0.309795 | 2,051 | 635 | 1,733 | 4,872 | 2.4 |
| 99–100 | 0.332043 | 1,416 | 470 | 1,181 | 3,139 | 2.2 |
| 100 and over | 1.000000 | 946 | 946 | 1,958 | 1,958 | 2.1 |

Table 3. Life table for females: United States, 2007Spreadsheet version available from: http://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/59_09/Table03.xls.

| | Probability of dying between ages x to $x + 1$ | Number surviving to age x | Number dying between ages x to $x + 1$ | Person-years lived between ages x to $x + 1$ | Total number of person-years lived above age x | Expectation of life at age x |
|-------|---|-----------------------------------|---|---|--|--------------------------------------|
| Age | q_x | l_x | d_x | L_x | T_x | e_x |
| 0-1 | 0.006103 | 100,000 | 610 | 99,464 | 8,040,632 | 80.4 |
| 1-2 | 0.000430 | 99,390 | 43 | 99,368 | 7,941,168 | 79.9 |
| 2-3 | 0.000255 | 99,347 | 25 | 99,334 | 7,841,800 | 78.9 |
| 3-4 | 0.000193 | 99,322 | 19 | 99,312 | 7,742,465 | 78.0 |
| 4-5 | 0.000149 | 99,303 | 15 | 99,295 | 7,643,153 | 77.0 |
| 5-6 | 0.000145 | 99,288 | 14 | 99,281 | 7,543,858 | 76.0 |
| 6-7 | 0.000132 | 99,273 | 13 | 99,267 | 7,444,577 | 75.0 |
| 7-8 | 0.000122 | 99,260 | 12 | 99,254 | 7,345,311 | 74.0 |
| 8-9 | 0.000112 | 99,248 | 11 | 99,243 | 7,246,057 | 73.0 |
| 9-10 | 0.000103 | 99,237 | 10 | 99,232 | 7,146,814 | 72.0 |
| 10-11 | 0.000096 | 99,227 | 10 | 99,222 | 7,047,582 | 71.0 |
| 11-12 | 0.000100 | 99,217 | 10 | 99,212 | 6,948,360 | 70.0 |
| 12-13 | 0.000120 | 99,207 | 12 | 99,201 | 6,849,148 | 69.0 |
| 13-14 | 0.000160 | 99,195 | 16 | 99,188 | 6,749,947 | 68.0 |
| 14-15 | 0.000212 | 99,180 | 21 | 99,169 | 6,650,759 | 67.1 |
| 15-16 | 0.000271 | 99,159 | 27 | 99,145 | 6,551,590 | 66.1 |
| 16-17 | 0.000325 | 99,132 | 32 | 99,116 | 6,452,445 | 65.1 |
| 17-18 | 0.000369 | 99,100 | 37 | 99,081 | 6,353,329 | 64.1 |
| 18-19 | 0.000400 | 99,063 | 40 | 99,043 | 6,254,248 | 63.1 |
| 19-20 | 0.000422 | 99,023 | 42 | 99,003 | 6,155,205 | 62.2 |
| 20-21 | 0.000443 | 98,982 | 44 | 98,960 | 6,056,202 | 61.2 |
| 21-22 | 0.000467 | 98,938 | 46 | 98,915 | 5,957,243 | 60.2 |
| 22-23 | 0.000488 | 98,892 | 48 | 98,868 | 5,858,328 | 59.2 |
| 23-24 | 0.000504 | 98,843 | 50 | 98,818 | 5,759,460 | 58.3 |
| 24-25 | 0.000518 | 98,794 | 51 | 98,768 | 5,660,642 | 57.3 |
| 25-26 | 0.000532 | 98,742 | 53 | 98,716 | 5,561,874 | 56.3 |
| 26-27 | 0.000548 | 98,690 | 54 | 98,663 | 5,463,158 | 55.4 |
| 27-28 | 0.000565 | 98,636 | 56 | 98,608 | 5,364,495 | 54.4 |
| 28-29 | 0.000583 | 98,580 | 57 | 98,551 | 5,265,887 | 53.4 |
| 29-30 | 0.000605 | 98,523 | 60 | 98,493 | 5,167,336 | 52.4 |
| 30-31 | 0.000634 | 98,463 | 62 | 98,432 | 5,068,843 | 51.5 |
| 31-32 | 0.000670 | 98,401 | 66 | 98,368 | 4,970,411 | 50.5 |
| 32-33 | 0.000714 | 98,335 | 70 | 98,300 | 4,872,043 | 49.5 |
| 33-34 | 0.000767 | 98,264 | 75 | 98,227 | 4,773,744 | 48.6 |
| 34-35 | 0.000824 | 98,189 | 81 | 98,149 | 4,675,517 | 47.6 |
| 35-36 | 0.000887 | 98,108 | 87 | 98,065 | 4,577,369 | 46.7 |
| 36-37 | 0.000959 | 98,021 | 94 | 97,974 | 4,479,304 | 45.7 |
| 37-38 | 0.001040 | 97,927 | 102 | 97,876 | 4,381,330 | 44.7 |
| 38-39 | 0.001137 | 97,825 | 111 | 97,770 | 4,283,454 | 43.8 |
| 39-40 | 0.001248 | 97,714 | 122 | 97,653 | 4,185,684 | 42.8 |
| 40-41 | 0.001367 | 97,592 | 133 | 97,525 | 4,088,031 | 41.9 |
| 41-42 | 0.001495 | 97,459 | 146 | 97,386 | 3,990,505 | 40.9 |
| 42-43 | 0.001644 | 97,313 | 160 | 97,233 | 3,893,120 | 40.0 |
| 43-44 | 0.001812 | 97,153 | 176 | 97,065 | 3,795,887 | 39.1 |
| 44-45 | 0.001994 | 96,977 | 193 | 96,880 | 3,698,822 | 38.1 |
| 45-46 | 0.002182 | 96,784 | 211 | 96,678 | 3,601,941 | 37.2 |
| 46-47 | 0.002373 | 96,572 | 229 | 96,458 | 3,505,263 | 36.3 |
| 47-48 | 0.002569 | 96,343 | 247 | 96,220 | 3,408,805 | 35.4 |
| 48-49 | 0.002775 | 96,096 | 267 | 95,962 | 3,312,586 | 34.5 |
| 49-50 | 0.002995 | 95,829 | 287 | 95,686 | 3,216,623 | 33.6 |
| 50-51 | 0.003236 | 95,542 | 309 | 95,388 | 3,120,938 | 32.7 |
| 51-52 | 0.003494 | 95,233 | 333 | 95,067 | 3,025,550 | 31.8 |
| 52-53 | 0.003763 | 94,900 | 357 | 94,722 | 2,930,484 | 30.9 |
| 53-54 | 0.004041 | 94,543 | 382 | 94,352 | 2,835,762 | 30.0 |
| 54-55 | 0.004330 | 94,161 | 408 | 93,957 | 2,741,410 | 29.1 |
| 55-56 | 0.004639 | 93,753 | 435 | 93,536 | 2,647,452 | 28.2 |
| 56-57 | 0.004981 | 93,319 | 465 | 93,086 | 2,553,916 | 27.4 |
| 57-58 | 0.005372 | 92,854 | 499 | 92,604 | 2,460,830 | 26.5 |
| 58-59 | 0.005826 | 92,355 | 538 | 92,086 | 2,368,226 | 25.6 |
| 59-60 | 0.006347 | 91,817 | 583 | 91,525 | 2,276,140 | 24.8 |
| 60-61 | 0.006942 | 91,234 | 633 | 90,917 | 2,184,615 | 23.9 |
| 61-62 | 0.007595 | 90,601 | 688 | 90,257 | 2,093,697 | 23.1 |
| 62-63 | 0.008293 | 89,913 | 746 | 89,540 | 2,003,441 | 22.3 |
| 63-64 | 0.009029 | 89,167 | 805 | 88,764 | 1,913,901 | 21.5 |
| 64-65 | 0.009826 | 88,362 | 868 | 87,928 | 1,825,136 | 20.7 |

Table 3. Life table for females: United States, 2007—Con.Spreadsheet version available from: http://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/59_09/Table03.xls.

| | Probability of dying between ages x to $x + 1$ | Number surviving to age x | Number dying between ages x to $x + 1$ | Person-years lived between ages x to $x + 1$ | Total number of person-years lived above age x | Expectation of life at age x |
|------------------------|---|-----------------------------------|---|---|--|--------------------------------------|
| Age | q_x | l_x | d_x | L_x | T_x | e_x |
| 65–66 | 0.010753 | 87,494 | 941 | 87,023 | 1,737,208 | 19.9 |
| 66–67 | 0.011692 | 86,553 | 1,012 | 86,047 | 1,650,185 | 19.1 |
| 67–68 | 0.012722 | 85,541 | 1,088 | 84,997 | 1,564,138 | 18.3 |
| 68–69 | 0.013830 | 84,453 | 1,168 | 83,869 | 1,479,141 | 17.5 |
| 69–70 | 0.015062 | 83,285 | 1,254 | 82,657 | 1,395,273 | 16.8 |
| 70–71 | 0.016484 | 82,030 | 1,352 | 81,354 | 1,312,615 | 16.0 |
| 71–72 | 0.018170 | 80,678 | 1,466 | 79,945 | 1,231,261 | 15.3 |
| 72–73 | 0.020151 | 79,212 | 1,596 | 78,414 | 1,151,316 | 14.5 |
| 73–74 | 0.022445 | 77,616 | 1,742 | 76,745 | 1,072,902 | 13.8 |
| 74–75 | 0.025056 | 75,874 | 1,901 | 74,923 | 996,157 | 13.1 |
| 75–76 | 0.028016 | 73,973 | 2,072 | 72,937 | 921,234 | 12.5 |
| 76–77 | 0.031215 | 71,900 | 2,244 | 70,778 | 848,297 | 11.8 |
| 77–78 | 0.034767 | 69,656 | 2,422 | 68,445 | 777,519 | 11.2 |
| 78–79 | 0.038707 | 67,234 | 2,602 | 65,933 | 709,074 | 10.5 |
| 79–80 | 0.043073 | 64,632 | 2,784 | 63,240 | 643,141 | 10.0 |
| 80–81 | 0.047907 | 61,848 | 2,963 | 60,366 | 579,901 | 9.4 |
| 81–82 | 0.053254 | 58,885 | 3,136 | 57,317 | 519,534 | 8.8 |
| 82–83 | 0.059160 | 55,749 | 3,298 | 54,100 | 462,217 | 8.3 |
| 83–84 | 0.065676 | 52,451 | 3,445 | 50,729 | 408,117 | 7.8 |
| 84–85 | 0.072854 | 49,006 | 3,570 | 47,221 | 357,389 | 7.3 |
| 85–86 | 0.080749 | 45,436 | 3,669 | 43,601 | 310,168 | 6.8 |
| 86–87 | 0.089416 | 41,767 | 3,735 | 39,900 | 266,566 | 6.4 |
| 87–88 | 0.098914 | 38,032 | 3,762 | 36,151 | 226,666 | 6.0 |
| 88–89 | 0.109300 | 34,270 | 3,746 | 32,398 | 190,515 | 5.6 |
| 89–90 | 0.120630 | 30,525 | 3,682 | 28,684 | 158,117 | 5.2 |
| 90–91 | 0.132959 | 26,842 | 3,569 | 25,058 | 129,434 | 4.8 |
| 91–92 | 0.146339 | 23,274 | 3,406 | 21,571 | 104,376 | 4.5 |
| 92–93 | 0.160816 | 19,868 | 3,195 | 18,270 | 82,805 | 4.2 |
| 93–94 | 0.176428 | 16,673 | 2,942 | 15,202 | 64,535 | 3.9 |
| 94–95 | 0.193208 | 13,731 | 2,653 | 12,405 | 49,333 | 3.6 |
| 95–96 | 0.211174 | 11,078 | 2,339 | 9,908 | 36,928 | 3.3 |
| 96–97 | 0.230333 | 8,739 | 2,013 | 7,732 | 27,020 | 3.1 |
| 97–98 | 0.250679 | 6,726 | 1,686 | 5,883 | 19,288 | 2.9 |
| 98–99 | 0.272186 | 5,040 | 1,372 | 4,354 | 13,405 | 2.7 |
| 99–100 | 0.294812 | 3,668 | 1,081 | 3,127 | 9,051 | 2.5 |
| 100 and over | 1.000000 | 2,587 | 2,587 | 5,923 | 5,923 | 2.3 |