

Vital Statistics of the United States, 1993

Preprint of Volume II, Mortality, Part A, Section 6

From the CENTERS FOR DISEASE CONTROL AND PREVENTION/National Center for Health Statistics

LIFE-TABLES







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Suggested citation

National Center for Health Statistics. Vital statistics of the United States, 1993, preprint of vol II, mortality, part A sec 6 life tables. Hyattsville, Maryland. 1997.

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Internet: http://www.cdc.gov/nchswww/nchshome.htm

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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES Centers for Disease Control and Prevention National Center for Health Statistics

Hyattsville, Maryland August 1997

DHHS Publication No. (PHS) 97-1104

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Guide to tables in section 6

TABLE: 6	-1	-2	-3	-4	-5
PAGE:	7	11	12	13	19
Years:					
1900–1993					¹ 5
1993 only	1	2	3		
Specified years and 1993			² 4		
Type of entry:					
Proportion dying ($_{n}q_{x}$)	1				
Number surviving (I_{x})	1	2		4	
Number dying $({}_{n}d_{x})$	1				
Stationary population ($_{n}L_{x}$ and T_{x})	1				
Average remaining lifetime $(\stackrel{\circ}{e}_{x})$	1		3	4	
Average length of life $(\stackrel{\circ}{e}_{\!_{0}})$					5
Characteristics:					
Age by:					
Single years		2	3		
5-year intervals	1			4	
Race-specific	1	2	3	4	5
Sex-race specific	1	2	3	4	5
Sex-specific	1	2	3	4	5
Total population	1	2	3	4	5

¹Entire United States for 1929–93; death-registration States for 1900–28.
²Entire United States for specified years from 1929 to 1993; death-registration States for specified years from 1900 to 1921.

Death rates for a specific period may be summarized by the life table method to obtain measures of comparative longevity. There are two types of life tables—the generation or cohort life table and the current life table.

The generation life table provides a "longitudinal" perspective in that it follows the mortality experience of a particular 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 generation life table reflects the mortality experience of an actual cohort from birth until no lives remain in the group. To prepare just a single complete generation life table requires data over many years. It is not feasible to construct generation life tables entirely on the basis of actual data for cohorts born in this century (1). It is necessary to project data for the incomplete period for cohorts whose life spans are not yet complete (2).

The better-known current life table may, in contrast, be characterized as "cross-sectional." Unlike the generation life table, the current life table does not represent the mortality experience of an actual cohort. Rather, the current life table considers a hypothetical cohort and assumes that it is subject to the age-specific death rates observed for an actual population during a particular period. Thus, for example, a current life table for 1993 assumes a hypothetical cohort subject throughout its lifetime to the age-specific death rates prevailing for the actual population in 1993. The current 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 section the term "life table" refers only to the current life table and not to the generation life table.

The life table program

Three series of life tables are prepared by the National Center for Health Statistics—complete, provisional abridged, and final abridged. The complete life tables for the U.S. population contain life table values for single years of age. They are based on decennial census data and deaths for a 3-year period around the census year and have been prepared since 1900. The provisional abridged life tables contain values by

NOTE: This report was prepared in the Division of Vital Statistics. Jeffrey D. Maurer and Robert N. Anderson, Mortality Statistics Branch, wrote this report. Thomas D. Dunn provided content review. Charles E. Royer provided computer programming support. Registration Methods staff and the Data Acquisition and Evaluation Branch provided consultation to State vital statistics offices regarding collection of the death certificate data on which this report is based. This report was edited by Demarius V. Miller and typeset by Zung T. N. Le of the Publications Branch, Division of Data Services.

5-year age groups and are based on a 10-percent sample of deaths. The final abridged life tables (referred to in this section as "abridged life tables") also contain values by 5-year age groups but are based on a complete count of all reported deaths.

The series of abridged life tables was initiated in 1945. Available annually since that year, the abridged life tables are based on deaths occurring during the calendar year and on midyear postcensal population estimates provided by the U.S. Bureau of the Census. Refinements in both the techniques for estimating the population and the methods for constructing abridged life tables permit these tables to be prepared in a way that provides reasonably accurate data on current trends in expectation of life and survivorship. Beginning with 1945, abridged life tables have been constructed by reference to a standard table (3). Methodology developed by Greville was used in constructing life tables for 1945–52. Since 1953 a modified method has been employed (4). U.S. life tables for the decennial period 1979–81 are used as the standard table in constructing the 1993 abridged life tables.

The 1945 abridged life tables were prepared for white and all other males and females. Since 1946 abridged life tables for the total population have also been available, and since 1948 abridged life tables have been calculated for total males and total females. Beginning with 1951, additional abridged life tables have been calculated for the total white and total all other populations.

Tables that show $l_{\rm x}$ and ${}^{\rm o}\!e_{\rm x}$ values by single years of age interpolated from the abridged life tables have been published since 1960.

Beginning with 1958, provisional abridged life tables have been published, for the total population only, in the "Annual Summary of Births, Marriages, Divorces, and Deaths, United States," *Monthly Vital Statistics Report*; unpublished provisional life table data by race and sex are also produced annually. Values in these life tables are based on population estimates provided by the U.S. Bureau of the Census and on the estimated number of deaths derived from the Current Mortality Sample (CMS). The CMS consists of one-tenth of the death certificates filed in the vital statistics registration offices of each State, the District of Columbia, and New York City. The sample is taken by selecting 1 of every 10 death certificates received between 2 dates a month apart, regardless of the month or year in which the death occurred.

Life table values

The data used to prepare the abridged U.S. life tables for 1993 are the final mortality statistics and the July 1, 1993, population estimates by age, race, and sex prepared by the U.S. Bureau of the Census. Selected life table values for 1900–1902,

Table A. Expectation of life at selected ages, by race and sex: Death-registration States, 1900–1902, and United States, 1959–61, 1969–71, 1979–81, 1992, and 1993

					All o	ther	
		White		То	otal	Black	
Life table value, period, and age	Total	Male	Female	Male	Female	Male	Female
Expectation of life							
t birth:							
1993	75.5	73.1	79.5	67.3	75.5	64.6	73.7
1992	75.8	73.2	79.8	67.7	75.7	65.0	73.9
1979–81	73.88	70.82	78.22	65.63	74.00	64.10	73.88
1969–71	70.75	67.94	75.49	60.98	69.05	69.00	68.32
1959–61	69.89	67.55	74.19	61.48	66.47	00.00	00.02
1900–1902	49.24	48.23	51.08	01.40	00.47	32.54	35.04
1900–1902	43.24	40.23	31.00			32.34	33.04
t age 1 year:							
1993	75.2	72.6	79.0	67.3	75.4	64.8	73.8
1992	75.4	72.8	79.3	67.7	75.7	65.2	74.1
1979–81	73.82	70.70	77.98	66.01	74.31	64.60	73.31
1969–71	71.19	68.33	75.66	62.13	70.01	61.24	69.37
1959–61	70.75	68.34	74.68	63.50	68.10	01.24	09.57
1900–1902	55.20	54.61	56.39	05.50	00.10	42.46	43.54
1900–1902	55.20	34.01	30.39			42.40	43.34
age 20 years:							
1993	56.7	54.2	60.3	49.2	56.9	46.8	55.3
1992	56.9	54.3	60.6	49.6	57.2	47.2	55.6
1979–81	55.46	52.45	59.44	47.87	55.88	46.48	54.90
1969–71	53.00	50.22	57.24	44.37	51.85	43.49	51.22
1959–61	52.58	50.25	56.29	45.78	50.07		
1900–1902	42.79	42.19	43.77			35.11	36.89
	.2 0	.20					00.00
t age 65 years:							
1993	17.3	15.4	19.0	14.3	17.8	13.4	17.1
1992	17.5	15.5	19.3	14.4	18.1	13.5	17.4
1979–81	16.51	14.26	18.55	13.83	17.60	13.29	17.13
1969–71	15.00	13.02	16.93	12.87	15.99	12.53	15.67
1959–61	14.39	12.97	15.88	12.84	15.12		
1900–1902	11.86	11.51	12.23			10.38	11.38

1959–61, 1969–71, 1979–81, 1992, and 1993 are shown in tables A and B.

Expectation of life—The most frequently used life table statistic is life expectancy ($^{\circ}e_{x}$), 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 at specified ages in 1993 are shown for the total population and by race and sex in table 6-1. In addition, life expectancies at single years of age by race and sex are shown in table 6-3.

Life expectancy at birth for 1993 for the total population was 75.5 years. This represents the average number of years that the members of the life table cohort may expect to live at the time of birth (tables A and 6-1).

Survivors to specified ages—Another way of assessing the longevity of the life table cohort is by determining the proportion who survive to specified ages. The $l_{\rm x}$ column provides the data for computing the proportion. For instance, for the total population 79,945 out of the original 1993 life table cohort of 100,000 (or 79.9 percent) were alive at exact age 65 (tables B and 6-2).

Median length of life—In addition to determining the proportion alive at a specified age, one can also compute the median age at death, the age at which exactly half the cohort (50,000 persons) still remain alive and half have died. For example, in 1993 the median age at death for the total population was 79.3 years (table B).

Trends and comparisons

In 1993 the average expectation of life at birth was 75.5 years, a decline of 0.3 years from the record high of 75.8 years in 1992. This was the first decrease in life expectancy at birth in the United States since 1980.

The expectation of life at birth for 1993 represents the average number of years that a group of infants born in 1993 would expect to live if the infants were to experience throughout their life the age-specific death rates prevailing in 1993. In 1993 life expectancy at birth for females was 78.8 years compared with 72.2 years for males; both figures represent decreases over 1992. The difference in life expectancy between the sexes was 6.6 years in 1993, smaller than the difference of 6.8 years in 1992. Historically, the difference in life expectancy between the sexes widened from 1900 to 1979 (2.0 years in 1900 and 7.8 years in 1975 and 1979), narrowed between 1979 and 1986 (7.8 years in 1979 to 7.0 years in 1986), and has subsequently fluctuated between 6.8 and 7.0 years. The difference of 6.6 years for 1993 is the narrowest the difference between the sexes has been since 1962.

Between 1992 and 1993, life expectancy for the white population decreased from the record high of 76.5 years to 76.3 years, and for the black population, from the record high of 69.6 years to 69.2 years. Although the difference in life expectancy between the black and white population narrowed from 7.6

Table B. Percent surviving from birth to selected ages, and median age at death, by race and sex: Death-registration States, 1900–1902, and United States, 1959–61, 1969–71, 1979–81, 1992, and 1993

					All c	other	
		White		Т	otal	Black	
Life table value, period, and age	Total	Male	Female	Male	Female	Male	Female
Percent surviving from birth							
To age 1 year:							
1993	99.2	99.2	99.4	98.4	98.8	98.2	98.5
1992	99.1	99.2	99.4	98.4	98.7	98.2	98.5
1979–81	98.7	98.8	99.0	97.9	98.3	97.7	98.1
1969–71	98.0	98.0	98.5	96.6	97.2	96.4	97.1
1959–61	97.4	97.4	98.0	95.3	96.2		
1900–1902	87.4 87.6	86.7	88.9	33.3	30.2	74.7	78.5
1900—1902	07.0	00.7	00.3			74.7	70.5
o age 20 years:							
1993	98.3	98.3	98.9	96.8	98.0	96.3	97.7
1992	98.3	98.3	98.9	96.9	98.0	96.4	97.7
1979–81	97.7	97.5	98.4	96.4	97.4	96.1	97.2
1969–71	96.7	96.5	97.6	94.3	95.9	94.1	95.7
1959–61	96.1	95.9	97.1	93.1	94.7	34.1	33.7
1900–1902	77.2	76.4	79.0	33.1	34.1	56.7	59.1
1900–1902	11.2	76.4	79.0			50.7	39.1
o age 65 years:							
1993	79.9	76.6	86.6	63.4	79.0	57.3	75.7
1992	80.1	76.7	86.8	64.0	78.9	58.2	75.5
1979–81	77.1	72.4	84.8	58.5	75.4	55.1	73.3
1969–71	71.9	66.3	81.6	49.6	66.1	47.5	64.7
1959–61	71.1	65.8	80.7	51.4	60.8		
1900–1902	40.9	39.2	43.8			19.0	22.0
1000 1002	40.5	05.2	40.0			15.0	22.0
ledian age at death:							
1993	79.3	76.6	82.8	71.4	79.6	68.5	77.7
1992	79.4	76.7	83.1	71.6	79.9	68.9	78.0
1979–81	77.6	74.2	81.8	69.0	77.8	67.4	76.6
1969–71	74.9	71.5	79.5	64.8	72.8	63.8	72.2
1959–61	74.3	71.4	78.5	65.6	70.6		72.2
1900–1902	58.4	57.2	60.6		70.0	29.8	34.3
1000 1002	50.7	07.2	00.0			20.0	07.0

years in 1970 to 5.7 years in 1982, it increased to 7.1 years in 1989 and has fluctuated between 6.9 years and 7.1 years during 1989–93.

Among the four race-sex groups for 1993, white females continued to have the highest life expectancy at birth (79.5 years), followed by black females (73.7 years), white males (73.1 years), and black males (64.6 years) (table A). Life expectancy for black males declined every year during 1984-89, increased during 1989-92, and declined between 1992 and 1993. As a result, the life expectancy for black males is still 0.7 years below the peak life expectancy of 65.3 years attained in 1984. For black females, the life expectancy fluctuated during 1984–88, increased during 1988–92, and declined between 1992 and 1993. The life expectancy for black females is 0.2 years below the peak life expectancy of 73.9 years attained in 1992. Between 1985 and 1993, life expectancy at birth increased for 7 of the 8 years for white males; for white females, it increased for 6 of the 8 years; for black females, for 4 of the 8 years; and for black males, for only 3 of the 8 years (table C). Overall, the largest gain in life expectancy between 1980 and 1993 was for white males (2.4 years), followed by white females (1.4 years), black females (1.2 years), and black males (0.8 years).

Life expectancy differences between males and females widened for many years after the beginning of the century, but recently the differences have narrowed for the white population

and have widened for the black population (table D). For the white population the difference between males and females increased from 2.9 years in 1900–1902 to 7.6 years by 1969–71; the difference has narrowed to 6.4 years for 1993, the lowest difference since 1956. For the black population, the difference in life expectancy between males and females increased from 2.5 years in 1900–1902 to 8.8 years by 1979–81; it narrowed to 8.3 years by 1984; increased to 9.2 years by 1991, and was 9.1 years for 1993.

Life expectancy differences between the white and black populations have widened for males from a low of 6.4 years for 1982 and 1983 to 8.5 for 1993, the greatest difference during the period 1970–93. For females, the life expectancy differences between the white and black populations have widened from a low of 5.1 years for 1982 and 1984 to 5.8 years for 1993.

The 1993 life table may be used to compare life expectancies at any age from birth onward. For example, a person who has reached age 65 years may look forward to living to an older age, on the average, than one who has reached 50 years. On the basis of mortality experienced in 1993, a person aged 50 years could expect to live an average of 29.2 more years for a total of 79.2 years, and a person aged 65 years could expect to live an average of 17.3 more years for a total of 82.3 years (tables 6-1 and A).

Table C. Average annual change in life expectancy at birth in years, by race and sex: United States, 1900–1902 to 1969–71, 1969–71 to 1979–81, 1979–81 to 1984, 1984 to 1985, 1985 to 1986, 1986 to 1987, 1987 to 1988, 1988 to 1989, 1989 to 1990, 1990 to 1991, 1991 to 1992, and 1992 to 1993

	\	Vhite	В	lack
Period	Male	Female	Male	Female
992 to 1993	-0.1	-0.3	-0.4	-0.2
991 to 1992	+0.3	+0.2	+0.4	+0.1
990 to 1991	+0.2	+0.2	+0.1	+0.2
989 to 1990	+0.2	+0.2	+0.2	+0.3
988 to 1989	+0.3	+0.3	-0.1	+0.1
987 to 1988	+0.1	_	-0.3	-0.2
986 to 1987	+0.2	+0.1	-0.1	_
985 to 1986	+0.1	+0.1	-0.2	_
984 to 1985	_	_	-0.3	-0.2
979–81 to 1984	+0.3	+0.1	+0.4	+0.2
969–71 to 1979–81	+0.3	+0.3	+0.4	+0.5
900–1902 to 1969–71	+0.3	+0.4	+0.4	+0.5

Table D. Differences in life expectancy at birth between males and females, by race; and between white and black persons, by sex: Death-registration States, 1900–1902, and United States, 1959–61, 1969–71, 1979–81, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, and 1993

	Femal	e-Male	White-Black		
Period	White	Black	Male	Female	
1993	6.4	9.1	8.5	5.8	
1992	6.6	8.9	8.2	5.9	
1991	6.7	9.2	8.3	5.8	
1990	6.7	9.1	8.2	5.8	
1989	6.7	9.0	8.2	5.9	
1988	6.7	8.8	7.8	5.7	
1987	6.8	8.7	7.4	5.5	
1986	6.9	8.6	7.1	5.4	
1985	6.9	8.4	6.8	5.3	
1984	6.9	8.3	6.5	5.1	
1979–81	7.40	8.78	6.72	5.34	
1969–71	7.55	8.32	7.94	7.17	
1959–61	6.64				
1900–1902	2.85	2.50	15.69	16.04	

Technical appendix

The geographic areas covered in life tables before 1929–31 were limited to the death-registration areas. Life tables for 1900–1902 and 1909–11 were constructed using mortality data from the 1900 death-registration States (10 States and the District of Columbia) and for 1919–21 from the 1920 death-registration States (34 States and the District of Columbia). The tables for 1929–31 through 1958 cover the conterminous United States. Decennial life table values for the 3-year period 1959–61 were derived from data that include both Alaska and Hawaii for each year (table 6-4). Data for each year shown in table 6-5 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 life table values, 1961–89—Life table values for 1960–69, 1970–79, and 1980–89 are constructed using the U.S. decennial life tables for 1959–61, 1969–71, and 1979–81, respectively, as the standard tables. The life table values for

1981–89 appearing in this publication are based on revised intercensal estimates of the populations for those years. As a result, the life table values for 1981–89 may differ from the life table values for those years published in *Vital Statistics of the United States* for 1989 and earlier years.

New Jersey data, 1962–64—The life tables for 1962 and 1963 for the six population groups involving race do not include data from New Jersey. This State 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 allocated to white or to black.

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

Estimates for single calendar years—Annual abridged life tables were initiated in 1945 for white males, white females, all other males, and all other females. The figures in table 6-5 by race and sex for the following years were estimated using a procedure other than the abridged life table methodology (5).

1900-45 Total 1900-47 Male 1900-50 White 1900-44 White male 1900-44 White female 1900-50 All other 1900-44 All other male 1900-44 All other male 1900-44 All other female	Years	Race and sex
1900-47 Female 1900-50 White 1900-44 White male 1900-44 White female 1900-50 All other 1900-44 All other male	1900–45	Total
1900–50 White 1900–44 White male 1900–44 White female 1900–50 All other 1900–44 All other male	1900–47	Male
1900-44 White male 1900-44 White female 1900-50 All other 1900-44 All other male	1900–47	Female
1900-44 White female 1900-50 All other 1900-44 All other male	1900–50	White
1900–50	1900–44	White male
1900–44	1900–44	White female
	1900–50	All other
1900–44 All other female	1900–44	All other male
	1900–44	All other female

Population bases for computing life tables

The population used for computing life table values shown in this section (furnished by the U.S. Bureau of the Census) represents the resident population of the United States. The populations used for computing the 1993 life table values are based on the July 1, 1993, population estimates that are consistent with the 1990 census (6). The 1990 census counts by race and age were modified. Race was modified to be consistent with the Office of Management and Budget categories and historical categories for mortality data. The modification procedures for race and age are described in a census report (7).

Explanation of the columns of the life tables

Column 1—Age interval (x to x + n)—This column shows the age interval between the two exact ages indicated. For instance, "20–25" means the 5-year interval between the 20th and 25th birthdays.

Column 2—Proportion dying $\binom{n}{q_x}$ —This column shows the proportion of the cohort who are alive at the beginning of an indicated age interval and who will die before reaching the end of that age interval. For example, for males in the age interval 20–25 years, the proportion dying is 0.00822: Out of every 1,000 males alive and exactly 20 years of age at the beginning of the period, about 8 will die before reaching their 25th birthday. In other words, the $\binom{n}{q_x}$ values represent probabilities that persons who are alive at the beginning of a specific age interval will die before reaching the beginning of the next age interval. The "proportion dying" column forms the basis of the life table. The life table is so constructed that all other columns are derived from it.

Column 3—Number surviving (l_x) —This column shows the number of persons, starting with a cohort of 100,000 live births, who survive to the exact age marking the beginning of each age interval. The l_x values are computed from the $_nq_x$ 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 male babies born alive, 99,077 will complete the first year

of life and enter the second; 98,857 will begin the sixth year; 97,997 will reach age 20; and 22,983 will live to age 85.

Column 4—Number dying $({}_{n}d_{x})$ —This column shows the number dying in each successive age interval out of 100,000 live births. Out of 100,000 males born alive, 923 will die in the first year of life; 193 in the succeeding 4 years; 806 in the 5-year period between exact ages 20 and 25, and 22,983 will die after reaching age 85. Each figure in column 4 is the difference between two successive figures in column 3.

Columns 5 and 6—Stationary population ($_{n}L_{x}$ and $T_{\rm x}$)—Suppose that a group of 100,000 individuals like that assumed in columns 3 and 4 is born every year and that the proportions dying in each such group in each age interval throughout the lives of the members are exactly those shown in column 2. If there were no migration and if the births were evenly distributed over the calendar year, the survivors of these births would make up what is called a stationary population—stationary because in such a population the number of persons living in any given age group would never change. When individuals left the group, either by death or by growing older and entering the next higher age group, their places would immediately be taken by persons entering from the next lower age group. Thus a census taken at any time in such a stationary community would always show the same total population and the same numerical distribution of that population among the various age groups. In such a stationary population supported by 100,000 annual births, column 3 shows the number of persons who, each year, reach the birthday that marks the beginning of the age interval indicated in column 1, and column 4 shows the number of persons who die each year in the indicated age interval.

Column 5 shows the number of persons in the stationary population in the indicated age interval. For example, the figure given for males in the age interval 20–25 years is 488,013. This means that in a stationary population of males supported by 100,000 annual births and with proportions dying in each age group always in accordance with column 2, a census taken on any date would show 488,013 persons between exact ages 20 and 25 years.

Column 6 shows the total number of persons in the stationary population (column 5) in the indicated age interval and all subsequent age intervals. For example, in the stationary population of males referred to in the last illustration, column 6 shows that there would be at any given moment a total of 5,240,576 persons who have passed their 20th birthday. The male population at all ages 0 and above (the total male population of the stationary community) would be 7,215,004.

Column 7—Average remaining lifetime (${}^{o}e_{x}$)—The average remaining lifetime (also called expectation of life) at any given age is 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. To arrive at this value, it is first necessary to observe that the figures in column 5 of the life table can also be interpreted in terms of a single life table cohort without introducing the concept of the stationary population. From this point of view, each figure in column 5 represents the total time (in years) lived between two indicated birthdays by all those reaching the earlier birthday among the survivors of a

cohort of 100,000 live births. Thus the figure 488,013 for males in the age interval 20–25 is the total number of years lived between the 20th and 25th birthdays by the 97,997 (column 3) who reached the 20th birthday out of 100,000 males born alive. The corresponding figure 5,240,576 in column 6 is the total number of years lived after attaining age 20 by the 97,997 reaching that age. This number of years divided by the number of persons (5,240,576 divided by 97,997) gives 53.5 years as the average remaining lifetime of males at age 20.

References

- Shryock HS, Siegel JS, et al. The methods and materials of demography, vol 2. U.S. Bureau of the Census. Washington: U.S. Government Printing Office. 1971.
- Moriyama IM, Gustavus SO. Cohort mortality and survivorship, United States death-registration States, 1900–68. National Center for Health Statistics. Vital Health Stat 3(16), 1972.

- Greville TNE, Carlson GA. Method of constructing the abridged life tables for the United States, 1949. National office of vital statistics. Vital statistics—special reports. Vol 33, no 15. Washington: Public Health Service. 1953.
- Sirken MG. Comparison of two methods of constructing abridged life tables by reference to a "standard" table. National Center for Health Statistics. Vital Health Stat 2(4). 1966.
- Greville TNE, Carlson GA. Estimated average length of life in the death-registration States. National Center for Health Statistics. Vital statistics—special reports. Vol 33, no 9. Washington: Public Health Service. 1951.
- U.S. Bureau of the Census. U.S. population estimates, by age, race, sex, and Hispanic origin: 1993. Census file RES0793. 1995.
- U.S. Bureau of the Census. Age, sex, race, and Hispanic origin information from the 1990 census: A comparison of census results where age and race have been modified. 1990 CPH-1–74. Washington: U.S. Department of Commerce. 1991.

Table 6-1. Abridged Life Tables by Race and Sex: United States, 1993 (Page 1 of 4)

		(Fuge 1	,			
Age interval	Proportion dying	Of 100,000	born alive	Stationary	population	Average remaining lifetime
Period of life between two exact ages stated in years, race, and sex	Proportion of persons alive at beginning of age interval dying during interval	Number living at beginning of age interval	Number dying during age interval	In the age interval	In this and all subsequent age intervals	Average number of years of life remaining at beginning of age interval
(1)	(2)	(3)	(4)	(5)	(6)	(7)
x to $x + n$	n 9 x	l _x	_n d _x	n ^L x	T _x	°e _x
ALL RACES						
0-1 1-5 5-10 10-15	0.00835 .00177 .00106 .00126	100,000 99,165 98,989 98,884	835 176 105 125	99,290 396,248 494,659 494,177	7,553,897 7,454,607 7,058,359 6,563,700	75.5 75.2 71.3 66.4
15-20 20-25 25-30 30-35	.00545	98,759 98,333 97,797 97,198	426 536 599 775	492,829 490,352 487,486 484,098	6,069,523 5,576,694 5,086,342 4,598,856	61.5 56.7 52.0 47.3
35-40 40-45 45-50 50-55	.01343 .01842	96,423 95,429 94,147 92,413	994 1,282 1,734 2,595	479,771 474,168 466,717 455,985	4,114,758 3,634,987 3,160,819 2,694,102	42.7 38.1 33.6 29.2
55-60 60-65 65-70 70-75	.06875	89,818 85,847 79,945 71,832	3,971 5,902 8,113 10,658	439,733 415,279 380,318 333,442	2,238,117 1,798,384 1,383,105 1,002,787	24.9 20.9 17.3 14.0
75-80 80-85 85 and over	.21698 .32300 1.00000	61,174 47,900 32,428	13,274 15,472 32,428	273,494 201,029 194,822	669,345 395,851 194,822	10.9 8.3 6.0
0-1 1-5 5-10 10-15	.00195 .00117	100,000 99,077 98,884 98,768	923 193 116 154	99,215 395,861 494,104 493,559	7,215,004 7,115,789 6,719,928 6,225,824	72.2 71.8 68.0 63.0
15-20	.00626 .00822 .00897 .01164	98,614 97,997 97,191 96,319	617 806 872 1,121	491,689 488,013 483,751 478,826	5,732,265 5,240,576 4,752,563 4,268,812	58.1 53.5 48.9 44.3
35-40 40-45 45-50 50-55	.01849 .02407	95,198 93,813 92,078 89,862	1,385 1,735 2,216 3,234	472,702 465,027 455,262 441,739	3,789,986 3,317,284 2,852,257 2,396,995	39.8 35.4 31.0 26.7
55-60 60-65 65-70 70-75	.08770 .13065	86,628 81,753 74,583 64,839	4,875 7,170 9,744 12,215	421,638 391,766 349,469 294,355	1,955,256 1,533,618 1,141,852 792,383	22.6 18.8 15.3 12.2
75-80 80-85	.39896	52,624 38,238 22,983	14,386 15,255 22,983	227,282 152,174 118,572	498,028 270,746 118,572	9.5 7.1 5.2
0-1	.00742 .00157 .00095 .00095	100,000 99,258 99,102 99,008	742 156 94 94	99,370 396,659 495,254 494,837	7,884,404 7,785,034 7,388,375 6,893,121	78.8 78.4 74.6 69.6
15-20		98,914 98,689 98,435 98,117	225 254 318 425	494,043 492,821 491,396 489,572	6,398,284 5,904,241 5,411,420 4,920,024	64.7 59.8 55.0 50.1
35-40 40-45 45-50 50-55	.00608 .00848 .01296 .02054	97,692 97,098 96,275 95,027	594 823 1,248 1,952	487,080 483,585 478,481 470,558	4,430,452 3,943,372 3,459,787 2,981,306	45.4 40.6 35.9 31.4
55-60 60-65 65-70 70-75	.03296 .05169 .07699 .11669	93,075 90,007 85,355 78,784	3,068 4,652 6,571 9,193	458,157 439,082 411,208 372,118	2,510,748 2,052,591 1,613,509 1,202,301	27.0 22.8 18.9 15.3
75-80	.17702 .27784 .1.00000	69,591 57,272 41,360	12,319 15,912 41,360	318,611 247,691 263,881	830,183 511,572 263,881	11.9 8.9 6.4

Table 6-1. Abridged Life Tables by Race and Sex: United States, 1993—Con. (Page 2 of 4)

Age interval	Proportion dying	roportion dying Of 100,000 born alive		Stationary	population	Average remaining lifetime
Period of life between two exact ages stated in years, race, and sex	Proportion of persons alive at beginning of age interval dying during interval	Number living at beginning of age interval	Number dying during age interval	In the age interval	In this and all subsequent age intervals	Average number of years of life remaining at beginning of age interval
(1)	(2)	(3)	(4)	(5)	(6)	(7)
x to $x + n$	n 9 x	l _x	_n d _x	_n L _x	$ au_{\mathrm{x}}$	°e _x
WHITE						
0-1	0.00681	100,000	681	99,421	7,632,665	76.3
1-5	.00152	99,319	151	396,923	7,533,244	75.8
5-10	.00095	99,168	94	495,584	7,136,321	72.0
10-15	.00117	99,074	116	495,149	6,640,737	67.0
15-20	.00383	98,958	379	493,927	6,145,588	62.1
20-25	.00458	98,579	451	491,781	5,651,661	57.3
25-30	.00519	98,128	509	489,354	5,159,880	52.6
30-35	.00689	97,619	673	486,450	4,670,526	47.8
35-40	.00880	96,946	853	482,721	4,184,076	43.2
40-45	.01153	96,093	1,108	477,900	3,701,355	38.5
45-50	.01635	94,985	1,553	471,346	3,223,455	33.9
50-55	.02554	93,432	2,386	461,594	2,752,109	29.5
55-60	.04111	91,046	3,743	446,444	2,290,515	25.2
60-65	.06566	87,303	5,732	423,005	1,844,071	21.1
65-70	.09834	81,571	8,022	388,720	1,421,066	17.4
70-75	.14495	73,549	10,661	342,075	1,032,346	14.0
75-80	.21466	62,888	13,500	281,588	690,271	11.0
80-85	.32099	49,388	15,853	207,567	408,683	8.3
85 and over	1.00000	33,535	33,535	201,116	201,116	6.0
WHITE, MALE		·		,	,	
0-1	.00755	100,000	755	99,360	7,308,000	73.1
1-5	.00170	99,245	169	396,589	7,208,640	72.6
5-10	.00107	99,076	106	495,091	6,812,051	68.8
10-15	.00144	98,970	143	494,595	6,316,960	63.8
15-20	.00534	98,827	528	492,948	5,822,365	58.9
20-25	.00683	98,299	671	489,840	5,329,417	54.2
25-30	.00766	97,628	748	486,234	4,839,577	49.6
30-35	.01017	96,880	985	481,961	4,353,343	44.9
35-40	.01257	95,895	1,205	476,617	3,871,382	40.4
40-45	.01586	94,690	1,502	469,970	3,394,765	35.9
45-50	.02129	93,188	1,984	461,377	2,924,795	31.4
50-55	.03263	91,204	2,976	449,086	2,463,418	27.0
55-60	.05220	88,228	4,606	430,322	2,014,332	22.8
60-65	.08365	83,622	6,995	401,587	1,584,010	18.9
65-70	.12687	76,627	9,722	359,812	1,182,423	15.4
70-75	.18431	66,905	12,331	304,466	822,611	12.3
75-80	.27102	54,574	14,791	236,073	518,145	9.5
	.39735	39,783	15,808	158,483	282,072	7.1
	1.00000	23,975	23,975	123,589	123,589	5.2
WHITE, FEMALE		20,0.0	20,010	120,000	120,000	J.E
0-1	.00603	100,000	603	99,486	7,948,850	79.5
1-5	.00133	99,397	132	397,271	7,849,364	79.0
5-10	.00084	99,265	83	496,100	7,452,093	75.1
10-15	.00088	99,182	87	495,725	6,955,993	70.1
15-20	.00222	99,095	220	494,959	6,460,268	65.2
20-25	.00221	98,875	219	493,832	5,965,309	60.3
25-30	.00265	98,656	261	492,638	5,471,477	55.5
30-35	.00355	98,395	349	491,142	4,978,839	50.6
35-40	.00498	98,046	488	489,094	4,487,697	45.8
	.00720	97,558	702	486,168	3,998,603	41.0
	.01148	96,856	1,112	481,712	3,512,435	36.3
	.01866	95,744	1,787	474,546	3,030,723	31.7
55-60	.03059	93,957	2,874	463,044	2,556,177	27.2
60-65	.04915	91,083	4,477	444,906	2,093,133	23.0
65-70	.07407	86,606	6,415	417,879	1,648,227	19.0
70-75	.11351	80,191	9,102	379,431	1,230,348	15.3
75-80	.17441	71,089	12,399	326,016	850,917	12.0
	.27563	58,690	16,177	254,210	524,901	8.9
	1.00000	42,513	42,513	270,691	270,691	6.4

Table 6-1. Abridged Life Tables by Race and Sex: United States, 1993—Con.

(Page 3 of 4)

Age interval	Proportion dying	Of 100,000	Of 100,000 born alive Stationary population		Average remaining	
Period of life between two exact ages stated in years, race, and sex	Proportion of persons alive at beginning of age interval dying during interval	Number living at beginning of age interval	Number dying during age interval	In the age interval	In this and all subsequent age intervals	Average number of years of life remaining at beginning of age interval
(1)	(2)	(3)	(4)	(5)	(6)	(7)
x to $x + n$	n q x	l _x	_n d _x	_n L _x	T _x	°e _x
ALL OTHER						
0-1	0.01405	100,000	1,405	98,805	7,146,642	71.5
1-5	.00266	98,595	262	393,765	7,047,837	71.5
5-10	.00148	98,333	146	491,261	6,654,072	67.7
10-15	.00164	98,187	161	490,598	6,162,811	62.8
15-20	.00625	98,026	613	488,768	5,672,213	57.9
20-25	.00911	97,413	887	484,973	5,183,445	53.2
25-30	.01021	96,526	986	480,236	4,698,472	48.7
30-35	.01321	95,540	1,262	474,654	4,218,236	44.2
35-40	.01765	94,278	1,664	467,456	3,743,582	39.7
40-45	.02344	92,614	2,171	457,971	3,276,126	35.4
45-50	.03080	90,443	2,786	445,673	2,818,155	31.2
50-55	.04370	87,657	3,831	429,189	2,372,482	27.1
55-60	.06364	83,826	5,335	406,339	1,943,293	23.2
60-65	.08970	78,491	7,041	375,437	1,536,954	19.6
65-70	.12530	71,450	8,953	335,417	1,161,517	16.3
70-75	.17774	62,497	11,108	285,242	826,100	13.2
75-80	.23880	51,389	12,272	226,412	540,858	10.5
	.34327	39,117	13,428	161,771	314,446	8.0
	1.00000	25,689	25,689	152,675	152,675	5.9
ALL OTHER, MALE			,	102,070	102,010	0.0
0-1	.01554	100,000	1,554	98,672	6,727,619	67.3
1.5	.00288	98,446	284	393,127	6,628,947	67.3
5-10	.00155	98,162	152	490,391	6,235,820	63.5
10-15	.00206	98,010	202	489,646	5,745,429	58.6
15-20	.00996	97,808	974	486,908	5,255,783	53.7
20-25	.01426	96,834	1,381	480,927	4,768,875	49.2
25-30	.01506	95,453	1,438	473,760	4,287,948	44.9
30-35	.01919	94,015	1,804	465,685	3,814,188	40.6
35-40	.02486	92,211	2,292	455,586	3,348,503	36.3
40-45	.03332	89,919	2,996	442,522	2,892,917	32.2
45-50	.04196	86,923	3,647	426,034	2,450,395	28.2
50-55	.05807	83,276	4,836	404,854	2,024,361	24.3
55-60	.08375	78,440	6,569	376,333	1,619,507	20.6
60-65	.11762	71,871	8,453	338,783	1,243,174	17.3
65-70	.16091	63,418	10,205	291,928	904,391	14.3
70-75	.22525	53,213	11,986	236,251	612,463	11.5
75-80	.29666 .41511 1.00000	41,227 28,997	12,230 12,037	175,276 114,163	376,212 200,936	9.1 6.9
ALL OTHER, FEMALE	1.0000	16,960	16,960	86,773	86,773	5.1
0-1	.01250	100,000	1,250	98,944	7,548,212	75.5
1-5	.00245	98,750	242	394,423	7,449,268	75.4
5-10	.00140	98,508	138	492,159	7,054,845	71.6
10-15	.00120	98,370	118	491,585	6,562,686	66.7
15-20	.00246	98,252	242	490,705	6,071,101	61.8
20-25	.00403	98,010	395	489,118	5,580,396	56.9
25-30	.00568	97,615	554	486,748	5,091,278	52.2
30-35	.00780	97,061	757	483,510	4,604,530	47.4
35-40	.01120	96,304	1,079	479,009	4,121,020	42.8
	.01480	95,225	1,409	472,842	3,642,011	38.2
	.02121	93,816	1,990	464,425	3,169,169	33.8
	.03142	91,826	2,885	452,304	2,704,744	29.5
55-60	.04702	86,941	4,182	434,762	2,252,440	25.3
60-65	.06779	84,759	5,746	410,033	1,817,678	21.4
65-70	.09807	79,013	7,749	376,398	1,407,645	17.8
70-75	.14290	71,264	10,184	331,717	1,031,247	14.5
75-80	.20078	61,080	12,264	275,312	699,530	11.5
	.30020	48,816	14,655	207,695	424,218	8.7
	1.00000	34,161	34,161	216,523	216,523	6.3

Table 6-1. Abridged Life Tables by Race and Sex: United States, 1993—Con. (Page 4 of 4)

	T					
Age interval	Proportion dying	Of 100,000) born alive	Stationary	population	Average remaining lifetime
Period of life between two exact ages stated in years, race, and sex	Proportion of persons alive at beginning of age interval dying during interval	Number living at beginning of age interval	Number dying during age interval	In the age interval	In this and all subsequent age intervals	Average number of years of life remaining at beginning of age interval
(1)	(2)	(3)	(4)	(5)	(6)	(7)
x to $x + n$	n q x	l _x	_n d _x	_n L _x	$ au_{ m x}$	°e _x
BLACK		*1**				
0-1 1-5 5-10 10-15		100,000 98,352 98,054 97,892	1,648 298 162 182	98,587 392,709 489,820 489,074	6,920,872 6,822,285 6,429,576 5,939,756	69.2 69.4 65.6 60.7
15-20 20-25 25-30 30-35	.01092 .01244	97,710 97,011 95,952 94,758	699 1,059 1,194 1,554	487,003 482,576 476,882 470,051	5,450,682 4,963,679 4,481,103 4,004,221	55.8 51.2 46.7 42.3
35-40 40-45 45-50 50-55		93,204 91,155 88,491 85,096	2,049 2,664 3,395 4,531	461,368 449,508 434,462 414,690	3,534,170 3,072,802 2,623,294 2,188,832	37.9 33.7 29.6 25.7
55-60 60-65 65-70 70-75		80,565 74,478 66,699 57,158	6,087 7,779 9,541 11,428	388,186 353,511 310,154 257,664	1,774,142 1,385,956 1,032,445 722,291	22.0 18.6 15.5 12.6
75-80		45,730 33,912 21,644	11,818 12,268 21,644	199,134 138,533 126,960	464,627 265,493 126,960	10.2 7.8 5.9
0-1 1-5 5-10	00330 00169	100,000 98,173 97,849	1,827 324 165	98,430 391,942 488,788	6,459,189 6,360,759 5,968,817	64.6 64.8 61.0
10-15 15-20 20-25 25-30 30-35	01155 01741 01857	97,684 97,456 96,330 94,653 92,895	228 1,126 1,677 1,758 2,230	487,954 484,822 477,740 469,009 459,071	5,480,029 4,992,075 4,507,253 4,029,513 3,560,504	56.1 51.2 46.8 42.6 38.3
35-40 40-45 45-50 50-55	03122 04181 05287	90,665 87,834 84,162 79,712	2,831 3,672 4,450 5,758	446,559 430,477 410,289 384,783	3,101,433 2,654,874 2,224,397 1,814,108	34.2 30.2 26.4 22.8
55-60 60-65 65-70 70-75	10143 13776 18339	73,954 66,453 57,298 46,790	7,501 9,155 10,508 11,923	351,587 309,881 260,490 204,156	1,429,325 1,077,738 767,857 507,367	19.3 16.2 13.4 10.8
75-80 80-85 85 and over	.44108	34,867 23,613 13,198	11,254 10,415 13,198	145,755 91,218 66,238	303,211 157,456 66,238	8.7 6.7 5.0
BLACK, FEMALE 0-1	01464	100,000	1,464	98,748	7,370,167	73.7
1-5 5-10 10-15	00275 00161 00134	98,536 98,265 98,107	271 158 131	393,493 490,883 490,237	7,370,167 7,271,419 6,877,926 6,387,043	73.8 70.0 65.1
15-20 20-25 25-30 30-35	.00464	97,976 97,715 97,262 96,600	261 453 662 930	489,285 487,514 484,736 480,800	5,896,806 5,407,521 4,920,007 4,435,271	60.2 55.3 50.6 45.9
35-40 40-45 45-50 50-55		95,670 94,350 92,629 90,215	1,320 1,721 2,414 3,378	475,271 467,739 457,491 443,068	3,954,471 3,479,200 3,011,461 2,553,970	41.3 36.9 32.5 28.3
55-60 60-65 65-70 70-75	.11215	86,837 82,091 75,653 67,169	4,746 6,438 8,484 10,797	422,873 394,974 357,771 309,682	2,110,902 1,688,029 1,293,055 935,284	24.3 20.6 17.1 13.9
75-80	31749	56,372 44,096 30,096	12,276 14,000 30,096	251,662 185,595 188,345	625,602 373,940 188,345	11.1 8.5 6.3

Table 6-2. Number of Survivors at Single Years of Age, Out of 100,000 Born Alive, by Race and Sex: United States, 1993

		All races		White			All other					
Age	Both sexes	Male	Female	Both sexes	Male	Female		Total			Black	
	DOMY GONES			DOWN SEACS	Male		Both sexes	Male	Female	Both sexes	Male	Female
0 1 2 3 3 4 5 5 6 7 7	100,000 99,165 99,055 99,019 98,989 98,963 98,940 98,919 98,900	100,000 99,077 99,005 98,953 98,915 98,884 98,857 98,831 98,807 98,786	100,000 99,258 99,205 99,163 99,130 99,102 99,079 99,058 99,040 99,023	100,000 99,319 99,264 99,224 99,193 99,168 99,146 99,125 99,106 99,089	100,000 99,245 99,182 99,137 99,103 99,076 99,052 99,029 99,007 98,987	100,000 99,397 99,351 99,316 99,288 99,265 99,245 99,227 99,211 99,196	100,000 98,595 98,501 98,431 98,377 96,333 98,295 98,262 98,233 98,208	100,000 98,446 98,338 98,262 98,206 98,162 98,162 98,089 96,057 98,030	100,000 98,750 98,671 98,606 98,552 96,508 98,471 98,440 98,414 98,391	100,000 98,352 98,246 98,166 98,104 98,054 98,012 97,975 97,943 97,915	100,000 98,173 98,049 97,962 97,899 97,849 97,866 97,768 97,768	100,000 98,536 98,449 98,376 98,315 98,265 98,223 98,188 98,158 98,158
10 11 12 13 14 15 16 17 17 18	98,884 98,870 98,855 98,835 98,804 98,759 98,697 98,620 98,530 98,433	98,768 98,753 98,738 98,715 98,676 98,614 98,527 98,416 98,286 98,144	99,008 98,994 98,980 98,963 98,914 98,879 98,837 98,739	99,074 99,060 99,046 99,027 98,999 98,958 98,902 98,832 98,752 98,666	98,970 98,955 98,940 98,918 98,882 98,827 98,751 98,655 98,543 98,423	99,182 99,170 99,157 99,142 99,122 99,095 99,060 99,017 98,970 98,922	98,187 98,170 98,152 98,127 98,087 96,026 97,941 97,833 97,706 97,565	98,010 97,995 97,980 97,953 97,899 97,808 97,676 97,505 97,302 97,076	98,370 98,350 98,330 98,308 98,282 98,252 98,216 98,174 98,125 98,070	97,892 97,872 97,852 97,824 97,779 97,710 97,614 97,493 97,349 97,187	97,684 97,668 97,651 97,620 97,559 97,456 97,306 97,111 96,878 96,615	98,107 98,084 98,061 98,037 98,009 97,976 97,937 97,892 97,840 97,781
20 21 22 23 24 25 26 27 27 28	98,333 98,231 98,126 98,018 97,908 97,797 97,684 97,570 97,452 97,329	97,997 97,844 97,685 97,522 97,357 97,191 97,025 96,858 96,687 96,509	98,689 98,640 98,591 98,541 98,489 98,435 98,378 98,318 98,255 98,188	98,579 98,492 98,403 98,313 98,221 98,128 96,033 97,936 97,836 97,731	98,299 98,171 98,039 97,904 97,767 97,628 97,487 97,345 97,199 97,045	98,875 98,830 98,787 98,744 98,701 98,656 98,669 98,560 98,508 98,508 98,453	97,413 97,251 97,078 96,898 96,713 96,526 96,338 96,149 95,955 95,753	96,834 96,577 96,305 96,023 95,737 95,173 94,895 94,614 94,323	98,010 97,943 97,870 97,791 97,706 97,615 97,518 97,414 97,303 97,186	97,011 96,820 96,615 96,399 96,177 95,952 95,726 95,497 95,263 95,018	96,330 96,023 95,693 95,349 95,000 94,653 94,311 93,972 93,629 93,273	97,715 97,641 97,558 97,467 97,368 97,262 97,147 97,024 96,892 96,751
30 31 32 33 34 35 36 37 38 39	97,198 97,059 96,912 96,757 96,594 96,243 96,243 96,054 95,855 95,647	96,319 96,117 95,903 95,678 95,443 95,198 94,944 94,679 94,403 94,115	98,117 98,042 97,963 97,879 97,789 97,692 97,588 97,477 97,358 97,232	97,619 97,499 97,371 97,236 97,094 96,946 96,791 96,629 96,459 96,280	96,880 96,703 96,515 96,317 96,110 95,895 95,673 95,442 95,201 94,951	98,395 98,334 98,269 98,199 98,125 98,046 97,961 97,870 97,773 97,669	95,540 95,314 95,076 94,825 94,559 94,278 93,981 93,667 93,335 92,984	94,015 93,689 93,345 92,984 92,606 92,211 91,798 91,366 90,911 90,430	97,061 96,929 96,789 96,639 96,478 96,304 96,115 95,911 95,693 95,464	94,758 94,481 94,188 93,878 93,550 93,204 92,838 92,451 92,042 91,610	92,895 92,494 92,070 91,623 91,155 90,665 90,154 89,619 89,057 88,463	96,600 96,439 96,267 96,083 95,884 95,670 95,438 95,189 94,923 94,643
40 41 42 43 44 45 46 47 48	95,429 95,199 94,956 94,700 94,431 94,147 93,846 93,526 93,183 92,813	93,813 93,496 93,164 92,816 92,454 92,078 91,685 91,273 90,836 90,367	97,098 96,956 96,805 96,642 96,466 96,275 96,067 95,840 95,592 95,322	96,093 95,896 95,688 95,467 95,233 94,985 94,720 94,435 94,128 93,795	94,690 94,417 94,131 93,831 93,517 93,188 92,842 92,475 92,083 91,661	97,558 97,439 97,311 97,173 97,022 96,856 96,674 96,473 96,252 96,010	92,614 92,223 91,810 91,375 90,919 90,443 89,945 89,422 88,870 86,283	89,919 89,376 88,801 88,197 87,570 86,923 86,256 85,564 84,842 84,082	95,225 94,975 94,711 94,432 94,135 93,816 93,474 93,106 92,710 92,284	91,155 90,674 90,167 89,634 89,075 88,491 87,880 87,239 86,565 85,852	87,834 87,167 86,462 85,723 84,955 84,162 83,344 82,497 81,615 80,689	94,350 94,044 93,722 93,382 93,019 92,629 92,210 91,761 91,280 90,765
50	92,413 91,978 91,505 90,991 90,430 89,818 89,152 88,428 87,640 86,781	89,862 89,316 88,725 88,083 87,386 86,628 85,806 84,915 83,947 82,895	95,027 94,704 94,351 93,964 93,540 93,075 92,566 92,009 91,400 90,734	93,432 93,036 92,604 92,131 91,613 91,046 90,426 89,748 89,007 88,194	91,204 90,707 90,166 89,576 88,932 88,228 87,461 86,626 85,714 84,715	95,744 95,452 95,131 94,777 94,387 93,957 93,485 92,398 91,772	87,657 86,990 86,278 85,517 84,701 83,626 82,889 81,888 80,821 79,689	83,276 82,422 81,518 80,557 79,533 78,440 77,275 76,037 74,724 73,335	91,826 91,333 90,802 90,229 89,610 88,941 88,218 87,439 86,603 85,710	85,096 84,295 83,446 82,545 81,586 80,565 79,480 78,329 77,112 75,828	79,712 78,681 77,595 76,449 75,237 73,954 72,597 71,167 69,664 68,092	90,215 89,628 89,001 88,330 87,610 86,837 86,008 85,121 84,174 83,165
60	85,847 84,833 83,737 82,557 81,293 79,945 78,510 76,985 75,367 73,650	81,753 80,517 79,185 77,753 76,220 74,583 72,842 70,996 69,045 66,992	90,007 89,214 88,353 87,423 86,424 85,355 84,213 82,993 81,687 80,287	87,303 86,329 85,270 84,124 82,891 81,571 80,161 78,657 77,056 75,355	83,622 82,431 81,139 79,743 78,240 76,627 74,902 73,065 71,118 69,064	91,083 90,327 89,502 88,606 87,641 86,606 85,498 84,310 83,036 81,666	78,491 77,226 75,691 74,484 73,004 71,450 69,823 68,122 66,340 64,467	71,871 70,330 68,711 67,017 65,252 63,418 61,520 59,559 57,527 55,413	84,759 83,747 82,671 81,526 80,308 79,013 77,639 76,184 74,642 73,004	74,478 73,061 71,574 70,018 68,393 66,699 64,940 63,115 61,216 59,232	66,453 64,746 62,972 61,136 59,243 57,298 55,308 53,274 51,186 49,027	82,091 80,950 79,739 78,455 77,094 75,653 74,132 72,530 70,841 69,055
70 71 72 73 74 75 76 77 77 78	71,832 69,911 67,886 65,756 63,519 61,174 58,722 56,165 53,506 50,750	64,839 62,589 60,244 57,803 55,263 52,624 49,892 47,075 44,185 41,235	78,784 77,174 75,453 73,618 71,665 69,591 67,393 65,066 62,607 60,010	73,549 71,638 69,620 67,492 65,249 62,888 60,409 57,814 55,109 52,298	66,905 64,647 62,289 59,828 57,257 54,574 51,783 48,894 45,921 42,879	80,191 78,607 76,910 75,094 73,155 71,089 68,890 66,555 64,079 61,459	62,497 60,428 58,265 56,024 53,727 51,389 49,017 46,609 44,161 41,665	53,213 50,924 48,558 46,135 43,684 41,227 38,775 36,330 33,888 31,444	71,264 69,418 67,468 65,421 63,289 61,080 58,796 56,434 53,988 51,450	57,158 54,990 52,738 50,425 48,081 45,730 43,382 41,035 38,681 36,309	46,790 44,472 42,087 39,665 37,248 34,867 32,536 30,254 28,013 25,802	67,169 65,178 63,087 60,910 58,667 56,372 54,031 51,640 49,193 46,681
80	47,900 44,962 41,941 38,841 35,668 32,428	38,238 35,207 32,154 29,091 26,030 22,983	57,272 54,389 51,359 48,179 44,846 41,360	49,388 46,384 43,292 40,117 36,863 33,535	39,783 36,648 33,488 30,315 27,141 23,975	58,690 55,770 52,695 49,462 46,069 42,513	39,117 36,515 33,863 31,167 28,437 25,689	28,997 26,549 24,107 21,682 19,293 16,960	48,816 46,081 43,245 40,310 37,280 34,161	33,912 31,487 29,037 26,570 24,099 21,644	23,613 21,444 19,302 17,199 15,155 13,198	44,096 41,436 38,700 35,892 33,020 30,096

Table 6-3. Expectation of Life at Single Years of Age, by Race and Sex: United States, 1993

	All races				White		All other					
Age	D-4h	Mala	E1-	D-#				Total			Black	
	Both sexes	Male	Female									
0	75.5 75.2 74.2 73.3 72.3 71.3 69.3 68.4 67.4	72.2 71.8 70.9 69.9 68.9 67.0 66.0 65.0 64.0	78.8 78.4 77.5 76.5 75.5 74.6 73.6 72.6 71.6	76.3 75.8 74.9 73.9 72.9 72.0 71.0 70.0 69.0 68.0	73.1 72.6 71.7 70.7 69.7 68.8 67.8 66.8 65.8 64.8	79.5 79.0 78.0 77.0 76.1 75.1 74.1 73.1 72.1	71.5 71.5 70.6 69.6 68.6 67.7 66.7 65.7 64.7 63.8	67.3 67.3 66.4 65.5 64.5 63.5 62.6 61.6 60.6 59.6	75.5 75.4 74.5 73.5 72.6 71.6 70.6 69.7 68.7 67.7	69.2 69.4 68.4 67.5 66.5 65.6 63.6 62.6 61.7	64.6 64.8 63.9 62.9 61.0 60.0 59.0 58.1 57.1	73.7 73.8 72.9 71.9 71.0 70.0 69.0 68.0 67.1 66.1
10	66.4 65.4 64.4 63.4 61.5 60.5 59.5 58.6 57.7	63.0 62.0 61.1 60.1 59.1 58.1 57.2 56.2 55.3 54.4	69.6 68.6 67.6 66.7 65.7 64.7 63.7 62.7 61.8 60.8	67.0 66.0 65.0 64.1 63.1 62.1 61.1 60.2 59.2 58.3	63.8 62.8 61.8 60.9 59.9 58.9 58.0 57.0 56.1	70.1 69.1 68.2 67.2 66.2 65.2 64.2 63.2 62.3 61.3	62.8 61.8 60.8 59.8 58.8 57.9 56.9 55.0 54.1	58.6 57.6 56.6 55.7 54.7 53.7 52.8 51.9 51.0	66.7 65.7 64.7 63.8 62.8 61.8 60.8 59.8 58.9 57.9	60.7 59.7 58.7 57.7 56.7 55.8 54.8 53.9 53.0 52.1	56.1 55.1 54.1 53.1 52.2 51.2 50.3 49.4 48.5 47.7	65.1 64.1 63.1 62.1 61.2 60.2 59.2 58.2 57.3 56.3
20 21 22 23 24 25 26 27 27 28	56.7 55.8 54.8 53.9 52.9 52.0 51.1 49.2 48.3	53.5 52.6 51.6 50.7 49.8 48.9 48.0 47.1 46.1 45.2	59.8 58.9 57.9 56.9 55.9 55.0 54.0 53.0 52.1	57.3 56.4 55.4 54.5 53.5 52.6 51.6 50.7 49.7 48.8	54.2 53.3 52.4 51.4 50.5 49.6 48.6 47.7 46.8 45.9	60.3 59.4 58.4 57.4 56.5 54.5 53.5 52.5 51.6	53.2 52.3 51.4 50.5 49.6 48.7 47.8 46.9 46.0 45.1	49.2 48.4 47.5 46.7 45.8 44.9 44.1 43.2 42.3 41.4	56.9 55.0 54.1 53.1 51.2 51.2 50.3 49.3 48.4	51.2 50.3 49.4 48.5 47.6 46.7 45.8 44.9 44.0 43.1	46.8 45.9 45.1 44.3 43.4 42.6 41.7 40.9 40.0 39.2	55.3 54.4 53.4 52.5 51.5 50.6 49.6 48.7 47.8 46.8
30 31 32 33 34 35 36 37 38	47.3 46.4 45.5 44.5 43.6 42.7 41.8 40.8 39.9 39.0	44.3 43.4 42.5 41.6 40.7 39.8 38.9 38.0 37.1 36.2	50.1 49.2 48.2 47.3 46.3 45.4 44.4 43.4 42.5 41.6	47.8 46.9 46.0 45.0 44.1 43.2 42.2 41.3 40.4 39.4	44.9 44.0 43.1 42.2 41.3 40.4 39.5 38.6 37.7 36.8	50.6 49.6 48.7 47.7 46.7 45.8 44.8 43.9 42.9 41.9	44.2 43.3 42.4 41.5 40.6 39.7 38.8 38.0 37.1 36.2	40.6 39.7 38.9 38.0 37.2 36.3 35.5 34.6 33.8 33.0	47.4 46.5 45.6 44.6 43.7 42.8 41.9 41.0 40.1 39.1	42.3 41.4 40.5 39.6 38.8 37.9 37.1 36.2 35.4 34.5	38.3 37.5 36.7 35.8 35.0 34.2 33.4 32.6 31.8 31.0	45.9 45.0 44.1 43.2 42.2 41.3 40.4 99.5 38.6 37.8
40 41 42 43 44 45 46 47 48	37.2 36.3 35.4 34.5 33.6 32.7 31.8 30.9	35.4 34.5 33.6 32.7 31.8 31.0 30.1 29.2 28.4 27.5	40.6 39.7 38.7 37.8 36.9 35.9 36.0 34.1 33.2 32.3	38.5 37.6 36.7 35.8 34.8 33.9 33.0 32.1 31.2 30.3	35.9 35.0 34.1 33.2 32.3 31.4 30.5 29.6 28.7 27.9	41.0 40.0 39.1 38.1 37.2 36.3 35.3 34.4 33.5 32.6	35.4 34.5 33.7 32.8 32.0 31.2 30.3 29.5 28.7 27.9	32.2 31.4 30.6 29.8 29.0 28.2 27.4 26.6 25.8 25.1	38.2 37.3 36.4 35.6 34.7 33.8 32.9 32.0 31.2 30.3	33.7 32.9 32.1 31.3 30.4 29.6 28.8 28.1 27.3 26.5	30.2 29.5 28.7 27.9 27.2 26.4 25.7 24.9 24.2 23.5	36.9 36.0 35.1 34.2 33.4 32.5 31.7 30.8 30.0 29.1
50 51 52 53 54 55 56 57 58	29.2 28.3 27.4 26.6 25.7 24.9 24.1 23.3 22.5 21.7	26.7 25.8 25.0 24.2 23.4 22.6 21.8 21.0 20.2 19.5	31.4 30.5 29.6 28.7 27.8 27.0 26.1 25.3 24.4 23.6	29.5 28.6 27.7 26.8 26.0 25.2 24.3 23.5 22.7 21.9	27.0 26.2 25.3 24.5 23.6 22.8 22.0 21.2 20.5 19.7	31.7 30.7 29.9 29.0 28.1 27.2 26.3 25.5 24.6 23.8	27.1 26.3 25.5 24.7 23.9 23.2 22.4 21.7 21.0 20.3	24.3 23.6 22.8 22.1 21.4 20.6 20.0 19.3 18.6 17.9	29.5 28.6 27.8 26.9 26.1 25.3 24.5 23.7 23.0 22.2	25.7 25.0 24.2 23.5 22.7 22.0 21.3 20.6 19.9 19.3	22.8 22.0 21.4 20.7 20.0 19.3 18.7 18.0 17.4 16.8	28.3 27.5 26.7 25.9 25.1 24.3 23.5 22.8 22.0 21.3
60 61 62 63 64 65 66 67 68	19.5 18.7 18.0 17.3 16.6 15.9 15.3	18.8 18.0 17.3 16.6 16.0 15.3 14.7 14.0 13.4 12.8	22.8 22.0 21.2 20.4 19.7 18.9 18.2 17.4 16.7	21.1 20.4 19.6 18.9 18.1 17.4 16.7 16.0 15.4	18.9 18.2 17.5 16.8 16.1 15.4 14.8 14.1 13.5 12.9	23.0 22.2 21.4 20.6 19.8 19.0 18.3 17.5 16.8	19.6 18.9 18.2 17.6 16.9 16.3 15.6 15.0 14.4 13.8	17.3 16.7 16.0 15.4 14.8 14.3 13.7 13.1 12.6 12.0	21.4 20.7 20.0 19.2 18.5 17.8 17.1 16.4 15.8	18.6 18.0 17.3 16.7 16.1 15.5 14.9 14.3 13.7	16.2 15.6 15.1 14.5 13.9 12.9 12.3 11.8 11.3	20.6 19.8 19.1 18.4 17.8 17.1 16.4 15.8 15.2 14.5
70	13.3 12.7 12.1 11.5 10.9 10.4	12.2 11.6 11.1 10.5 10.0 9.5 9.0 8.5 8.0 7.5	15.3 14.6 13.9 13.2 12.6 11.9 11.3 10.7 10.1 9.5	14.0 13.4 12.8 12.2 11.6 11.0 10.4 9.9 9.3 8.8	12.3 11.7 11.1 10.6 10.0 9.5 9.0 8.5 8.0 7.5	15.3 14.6 14.0 13.3 12.6 12.0 11.3 10.7 10.1 9.5	13.2 12.7 12.1 11.6 11.0 10.5 10.0 9.5 9.0 8.5	11.5 11.0 10.5 10.0 9.6 9.1 8.7 8.2 7.8 7.3	14.5 13.8 13.2 12.6 12.0 11.5 10.9 10.3 9.8 9.2	12.6 12.1 11.6 11.1 10.6 10.2 9.7 9.2 8.7 8.3	10.8 10.4 9.9 9.5 9.1 8.7 8.3 7.9 7.5 7.1	13.9 13.3 12.8 12.2 11.6 11.1 10.6 10.0 9.5 9.0
80	7.8 7.3 6.8	7.1 6.7 6.2 5.9 5.5 5.2	8.9 8.4 7.8 7.3 6.8 6.4	8.3 7.8 7.3 6.8 6.4 6.0	7.1 6.7 6.2 5.9 5.5 5.2	8.9 8.4 7.8 7.3 6.8 6.4	8.0 7.6 7.1 6.7 6.3 5.9	6.9 6.5 6.1 5.8 5.4 5.1	8.7 8.2 7.7 7.2 6.8 6.3	7.8 7.4 7.0 6.6 6.2 5.9	6.7 6.3 5.9 5.6 5.3 5.0	8.5 8.0 7.5 7.1 6.7 6.3

Table 6-4. Life Table Values by Race and Sex: Death-Registration States, 1900-1902 to 1919-21, and United States, 1929-31 to 1993
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[Alaska and Hawaii included beginning in 1959. For decennial periods prior to 1929-31, data are for groups of registration States as follows: 1900-1902 and 1909-11, 10 States and the District of Columbia; 1919-21, 34 States and the District of Columbia. Beginning 1970 excludes deaths of nonresidents of the United States; see Technical Appendix.]

Age, race, and sex		Number of survivors out of 100,000 born alive $(I_{\mathcal{K}})$													
	1993	1979-81	1969-71	1959-61	1949-51	1939-41	1929-31	1919-21	1909-11	1900-1902					
ALL RACES 0	. 100,000 99,165 98,989 98,884 98,759 98,333 97,797 97,198 96,423	100,000 98,740 98,495 98,347 98,196 97,741 97,110 96,477 95,808	100,000 97,998 97,668 97,460 97,261 96,716 96,000 95,307 94,482	100,000 97,407 96,998 96,765 96,551 96,111 95,517 94,905 94,144	100,000 97,024 96,482 96,177 95,885 95,366 94,676 93,919 92,976	100,000 95,290 94,220 93,710 93,235 92,435 91,335 90,078 86,573	100,000 94,028 91,978 91,106 90,385 89,089 87,269 85,302 83,118	100,000 92,515 83,389 88,129 87,144 85,441 83,146 80,642 77,961	100,000 88,538 83,887 82,458 81,506 80,074 78,046 75,779 73,127	100,000 87,552 81,804 80,052 78,963 77,239 74,768 72,043 69,078					
40	. 94,147 . 92,413 . 89,818 . 85,847 . 79,945	94,926 93,599 91,526 88,348 83,726 77,107 68,248 56,799 43,180 27,960	93,322 91,587 88,972 85,110 79,529 71,933 61,984 49,705 35,285 20,908	93,064 91,378 88,756 84,711 79,067 71,147 60,857 48,170 33,576 18,542	91,648 89,634 86,591 82,176 75,921 67,555 56,987 43,903 29,313 15,785	86,650 84,069 80,487 75,557 68,924 60,366 49,655 36,735 22,883 11,073	80,557 77,343 73,321 68,182 61,563 53,195 42,768 30,789 18,580 8,542	75,114 72,036 68,429 63,947 58,079 50,560 41,090 29,729 18,298 8,683	70,042 66,561 62,460 57,555 51,138 43,194 33,816 23,552 13,712 6,001	65,890 62,436 58,514 53,852 47,946 40,911 32,390 22,960 13,529 6,053					
0	. 99.077	100,000 98,607 98,333 98,160 97,972 97,316 96,361 95,430 94,501	100,000 97,755 97,395 97,151 96,904 96,126 95,040 94,072 92,997	100,000 97,087 96,643 96,375 96,107 95,491 94,631 93,826 92,889	100,000 96,661 96,071 95,726 95,366 94,695 93,791 92,861 91,760	100,000 94,762 93,624 93,054 92,508 91,617 90,385 88,009 87,371	100,000 93,440 91,294 90,346 89,561 88,220 86,359 84,346 82,075	100,000 91,745 88,505 87,184 86,156 84,440 82,252 79,890 77,514	100,000 87,505 82,718 81,249 80,261 78,792 76,675 74,378 71,614	100,000 86,426 80,548 78,775 77,681 75,984 73,472 70,747 67,752					
40	93,813 92,078 89,862 86,628 81,753 74,583 64,839 52,624 38,238 22,983	93,345 91,649 89,007 84,936 79,012 70,646 59,681 46,272 31,810 18,020	91,541 89,369 86,070 81,139 73,958 64,318 52,296 38,797 24,921 13,168	91,572 89,492 86,199 81,039 73,887 64,177 52,244 38,950 25,300 12,845	90,207 87,819 84,158 78,781 71,246 61,566 49,950 36,756 25,237 11,750	85,246 82,336 78,254 72,627 65,142 55,776 44,588 31,864 18,995 8,693	79,357 75,882 71,518 65,981 58,909 50,154 39,516 27,718 16,172 7,107	74,432 71,244 67,553 62,965 56,917 49,218 39,668 28,316 17,128 7,920	68,297 64,518 60,118 54,970 48,343 40,264 31,023 21,213 11,942 5,059	64,447 60,849 56,736 51,939 45,895 38,736 30,217 21,076 12,084 5,179					
FEMALE 0	100,000 99,258 99,102 99,008 98,914 98,689 98,435 98,117 97,692	100,000 98,880 98,666 98,544 98,432 98,184 97,883 97,551 97,140	100,000 98,254 97,955 97,784 97,636 97,331 96,966 96,544 95,966	100,000 97,744 97,371 97,173 97,016 96,756 96,418 95,996 95,409	100,000 97,406 96,908 96,652 96,431 96,066 95,583 94,933 94,206	100,000 95,848 94,848 94,402 94,000 93,293 92,322 91,182 89,810	100,000 94,728 92,789 92,008 91,364 90,116 88,328 86,398 84,304	100,000 93,383 90,380 89,186 88,247 86,556 84,135 81,463 78,713	100,000 89,623 85,117 83,728 82,813 81,418 79,481 77,247 74,719	100,000 88,733 83,119 81,390 80,307 78,555 76,119 73,394 70,463					
40	97,098 96,275 95,027 93,075 90,007 85,355 78,784 69,591 57,272 41,360	96,531 95,570 94,060 91,760 88,414 83,520 76,720 67,186 54,372 37,772	95,097 93,793 91,852 89,066 85,139 79,698 71,955 61,107 46,445 29,538	94,560 93,265 91,327 88,451 84,430 78,462 70,100 58,394 43,063 25,269	93,101 91,469 89,075 85,694 80,890 74,119 64,873 52,111 36,486 20,666	88,092 85,856 82,828 78,708 73,093 65,523 55,449 42,425 27,524 13,972	81,927 79,041 75,456 70,832 64,795 56,924 46,774 34,600 21,578 10,322	75,907 72,954 69,452 65,099 59,438 52,126 42,741 31,344 19,613 9,515	71,894 68,755 65,001 60,392 54,226 46,438 36,916 26,155 15,682 7,051	67,407 64,121 60,415 55,908 50,155 43,246 34,721 24,994 15,129 7,063					
WHITE 0	100,000 99,319 99,168 99,074 96,958 98,579 98,128 97,619 96,946	100,000 98,898 98,675 98,536 98,391 97,340 96,774 96,192	100,000 98,224 97,930 97,733 97,546 97,036 96,406 95,824 95,152	100,000 97,714 97,353 97,131 96,928 96,508 95,965 95,440 94,798	100,000 97,278 96,790 96,502 96,228 95,763 95,169 94,536 93,750	100,000 95,685 94,713 94,228 93,792 93,117 92,213 91,185 89,941									
40	96,093 94,985 93,432 91,046 87,303 81,571 73,549 62,888 49,388 33,535	95,427 94,257 92,384 89,427 85,031 78,585 69,801 58,299 44,409 28,768	94,190 92,681 90,306 86,688 81,323 73,889 63,991 51,586 36,659 21,578	93,870 92,374 89,958 86,173 80,811 73,102 62,834 49,895 34,697 19,017	92,616 90,847 88,110 84,027 78,066 69,850 59,189 45,688 30,438 16,239	88,318 86,069 82,833 78,218 71,785 63,201 52,165 38,610 23,976 11,483				:::					

Table 6-4. Life Table Values by Race and Sex: Death-Registration States, 1900-1902 to 1919-21, and United States, 1929-31 to 1993—Con.
(Page 2 of 6)

[Alaska and Hawaii included beginning in 1959. For decennial periods prior to 1929-31, data are for groups of registration States as follows: 1900-1902 and 1909-11, 10 States and the District of Columbia; 1919-21, 34 States and the District of Columbia. Beginning 1970 excludes deaths of nonresidents of the United States; see Technical Appendix]

Age, race, and sex				Number	r of survivors ou	t of 100,000 bor	n alive (I _x)			
	1993	1979-81	1969-71	1959-61	1949-51	1939-41	1929-31	1919-21	1909-11	1900-1902
WHITE, MALE 0 1 5	100,000 99,245 99,076 98,970 98,827 98,299 97,628 96,880 95,895	100,000 98,769 98,519 98,357 98,176 97,525 96,616 95,783 94,980	100,000 97,994 97,671 97,441 97,208 96,480 95,524 94,716 93,843	100,000 97,408 97,015 96,758 96,503 95,908 95,106 94,401 93,559	100,000 96,931 96,403 96,069 95,728 95,104 94,294 93,489 92,543	100,000 95,188 94,150 93,601 93,089 92,293 91,241 90,092 88,713	100,000 93,768 91,738 90,810 90,074 88,904 87,371 85,707 83,812	100,000 91,975 88,842 87,530 86,546 84,997 93,061 80,888 78,441	100,000 87,674 82,972 81,519 80,549 79,116 77,047 74,810 72,108	100,000 86,655 80,864 79,109 78,037 76,376 73,907 71,219 68,245
40	94,690 93,188 91,204 88,228 83,622 76,627 66,905 54,574 39,783 23,975	93,984 92,494 90,105 86,303 80,625 72,393 61,384 47,712 32,788 18,538	92,631 90,725 87,690 83,001 75,696 66,343 54,138 40,324 25,885 13,527	92,427 90,533 87,424 82,463 75,485 65,834 53,825 40,207 25,993 13,065	91,173 89,002 85,601 80,496 73,172 63,541 51,735 38,104 24,005	86,880 84,285 80,521 75,156 67,787 58,305 46,739 33,404 19,860 9,013	81,457 78,345 74,288 68,981 61,933 52,964 41,880 29,471 17,221 7,572	75,733 72,696 69,107 64,574 58,498 50,663 40,873 29,205 17,655 8,154	68,848 65,115 60,741 55,622 48,987 40,862 31,527 21,585 12,160 5,145	64,954 61,369 57,274 52,491 46,452 39,245 30,645 21,387 12,266 5,252
0	100,000 99,397 99,265 99,182 99,095 98,875 98,656 98,395 98,046	100,000 99,035 98,841 98,725 98,618 98,374 98,093 97,802 97,445	100,000 98,468 98,203 98,042 97,902 97,618 97,299 96,945 96,474	100,000 98,036 97,709 97,525 97,375 97,135 96,844 96,499 96,026	100,000 97,645 97,199 96,960 96,756 96,454 96,072 95,605 94,977	100,000 96,211 95,309 94,890 94,534 93,984 93,228 92,320 91,211	100,000 95,037 93,216 92,466 91,894 90,939 89,524 87,972 86,248	100,000 93,608 90,721 89,564 88,712 87,281 85,163 82,740 80,206	100,000 89,774 85,349 83,979 83,993 81,750 79,865 77,676 75,200	100,000 88,939 83,426 81,723 80,680 78,978 76,588 73,887 70,971
40	97,558 96,856 95,744 93,957 91,083 86,606 80,191 71,089 58,690 42,513	96,913 96,065 94,710 92,594 89,451 84,764 78,139 68,712 55,770 38,774	95,762 94,649 92,924 90,383 86,726 81,579 74,101 63,290 48,182 30,490	95,326 94,228 92,522 89,967 86,339 80,739 72,507 60,461 44,676 26,046	94,080 92,725 90,685 87,699 83,279 76,773 67,545 54,397 38,026 21,348	89,805 87,920 85,267 81,520 76,200 68,701 58,363 44,685 28,882 14,487	84,256 81,780 78,572 74,321 68,462 60,499 49,932 37,024 23,053 10,937	77,624 74,871 71,547 67,323 61,704 54,299 44,638 32,777 20,492 9,909	72,425 69,341 65,629 61,053 54,900 47,086 37,482 26,569 15,929 7,152	67,935 64,677 61,005 56,509 50,752 43,806 35,206 25,362 15,349 7,149
ALL OTHER 0	100,000 98,595 98,333 98,187 98,026 97,413 96,526 95,540 94,278	100,000 98,097 97,756 97,568 97,387 96,913 96,107 95,088 93,870	100,000 96,909 96,400 96,126 95,864 95,101 93,792 92,309 90,470	100,000 95,732 95,051 94,745 94,460 93,880 92,925 91,699 90,046	100,000 95,407 94,482 94,060 93,646 92,738 91,321 89,584 87,402					
40	92,614 90,443 87,657 83,826 78,491 71,450 62,497 51,389 39,117 25,689	92,245 89,928 86,525 81,732 75,300 67,179 57,635 46,362 34,558 22,279	87,964 84,575 80,046 74,150 66,775 57,797 47,542 35,987 25,215 16,299	87,766 84,501 80,172 73,893 65,795 56,038 45,434 34,531 24,815 15,337	84,478 80,507 74,976 67,660 58,593 48,649 38,616 28,968 20,003 12,433					
ALL OTHER, MALE 0	100,000 98,446 98,162 98,010 97,808 96,834 95,453 94,015 92,211	100,000 97,939 97,559 97,337 97,113 96,431 95,200 93,666 91,891	100,000 96,592 96,038 95,716 95,385 94,293 92,267 90,106 87,597	100,000 95,301 94,570 94,234 93,874 93,108 91,825 90,270 88,331	100,000 94,911 93,921 93,453 92,965 91,941 90,285 88,327 85,940	100,000 91,696 89,920 89,211 88,417 86,770 84,055 80,865 77,185				
40 45 50 55 60 65 70 75 80	89,919 86,923 83,276 78,440 71,871 63,418 53,213 41,227 28,997 16,960	89,645 86,578 82,153 76,019 68,093 58,517 47,796 36,191 24,969 14,454	84,378 80,163 74,748 67,808 59,396 49,607 39,025 27,789 17,999 10,811	85,744 82,075 77,239 70,351 61,669 51,392 39,914 29,064 19,994 11,620	82,832 78,686 72,891 65,122 55,535 45,198 35,018 25,472 16,904 9,898	72,830 67,514 60,766 52,867 44,370 35,912 27,688 19,765 12,352 6,492				

Table 6-4. Life Table Values by Race and Sex: Death-Registration States, 1900-1902 to 1919-21, and United States, 1929-31 to 1993—Con.
(Page 3 of 6)

[Alaska and Hawaii included beginning in 1959. For decennial periods prior to 1929-31, data are for groups of registration States as follows: 1900-1902 and 1909-11, 10 States and the District of Columbia; 1919-21, 34 States and the District of Columbia. Beginning 1970 excludes deaths of nonresidents of the United States; see Technical Appendix]

				,										
	Number of survivors out of 100,000 born alive $(I_{\rm x})$													
Age, race, and sex				Numbe	r of survivors ou	it of 100,000 bor	n alive (I _x)							
	1993	1979-81	1969-71	1959-61	1949-51	1939-41	1929-31	1919-21	1909-11	1900-1902				
ALL OTHER, FEMALE														
o	100,000	100,000	100,000	100,000	100,000	100,000								
1 5	98,750 98,508	98,261 97,958	97,235 96,772	96,172 95,543	95,913 95,055	93,318 91,710								
10 15	98,370 98,252	97,806 97,669	96,546 96,353	95,265 95,057	94,679 94,343	91,092 90,363								
20	98,010	97,404	95,917	94,660	93,544	88,505								
25 30	97,615 97,061	96,996 96,441	95,247 94,370	94,005 93,070	92,336 90,799	85,961 83,147								
35	96,304	95,719	93,123	91,670	88,805	79,879								
40 45	95,225 93,816	94,646 93,009	91,247 88,608	89,676 86,793	86,052 82,257	75,908 71,061								
50	91,826	90,523	84,964	82,979	77,007	64,886								
55 60	88,941 84,759	86,951 82,000	80,162 73,984	77,362 69,941	70,196 61,758	57,419 49,102								
65 70	79,013 71,264	75,382 67,147	66,064 56,375	60,825 51,274	52,358 42,612	40,718 32,579								
75 80	61,080 48,816	56,499 44,378	44,841 33,373	40,540 30,315	32,981 23,712	24,668 17,157								
85	34,161	30,543	22,763	19,744	15,550	10,658								
BLACK														
0	100,000 98,352	100,000 97,885	100,000 96,731			100,000 92,584								
5	98,054	97.522	96,207			90,983								
10 15	97,892 97,710	97,322 97,134	95,928 95,661			90,339 89,591								
20 25	97,011 95,952	96,652 95,804	94,887 93,513			87,839 85,210								
30 35	94,758 93,204	94,680 93,288	91,934 89,977			82,194								
	91,155	91,439	87,304			78,683								
45	88,491	88,834	83,700			74,466 69,284								
50 55	85,096 80,565	85,044 79,816	78,938 72,826			62,702 54,846								
60 65	74,478 66,699	72,913 64,391	65,250 56,102			46,318 37,838								
70	57,158	54,617	45,785			29,654								
75 80	45,730 33,912	43,274 31,711	34,262 23,710			21,798 14,408								
85	21,644	19,939	15,044			8,326								
BLACK, MALE 0	100,000	100,000	100.000			100,000	100.000	100,000	100.000	100.000				
1	98,173	97,703	96,394			91,772	91,268	89,499	100,000 78,065	100,000 74,674				
5 10	97,849 97,684	97,300 97,061	95,826 95,497			90,082 89,393	88,412 87,311	85,195 83,768	68,589 66,377	64,385 61,730				
15 20	97,456 96,330	96,826 96,132	95,161 94,053			88,610 86,968	86,152 83,621	82,332 79,057	64,478 61,426	59,667 56,733				
25	94,653 92,895	94,827	91,904			84,227	79,516	74,540	57,736	53,285				
30 35	90,665	93,125 91,080	89,584 86,885			80,979 77,221	75,083 70,049	70,344 65,873	54,073 49,865	49,867 46,541				
40 45	87,834 84,162	88,490 84,997	83,441 78,976			72,780 67,346	64,710 58,432	61,353 56,589	45,414 40,563	42,989 39,230				
50 55	79,712 73,954	80,065 73,413	73,282 66,101			60,495	51,748	51,880	35,427	34,766				
60	66,453	64,980	57,457			52,426 43,833	44,436 36,790	46,581 40,506	29,754 23,750	29,987 24,194				
65 70	57,298 46,790	55,061 44,213	47,485 36,925	:::		35,371 27,236	29,314 21,741	34,042 26,923	17,806 12,295	19,015 13,829				
75 80	34,867 23,613	32,717 22,017	25,921 16,560			19,456 12,186	14,419 8,239	18,854 11,615	7,494 3,894	8,892 4,831				
85	13,198	12,383	9,648			6,444	3,660	5,605	1,747	2,030				
BLACK, FEMALE														
1	100,000 98,536	100,000 98,073	100,000 97,076			100,000 93,416	100,000 92,796	100,000 91,251	100,000 81,493	100,000 78,525				
5 10	98,265 98,107	97,751 97,590	96,598 96,369			91,906 91,308	90,185 89,201	87,149 85,607	72,768 70,508	68,056 65,11 1				
15 20	97,976 97,715	97,450 97,180	96,172 95,729			90,594 88,736	88,088 85,078	83,954 80,154	68,218	62,384 59,053				
25	97,262	96,754	95,035			86,198	81,067	75,359	64,764 61,430	55,795				
30 35	96,600 95,670	96,150 95,338	94,114 92,807			83,384 80,092	76,816 72,192	70,633 65,857	58,281 54,595	52,773 49,567				
40 45	94,350 92,629	94,137 92,322	90,817 88,001			76,084 71,157	67,271 61,365	61,130 56,230	50,568 45,947	46,146 42,279				
50	90,215	89,563	84,168			64,885	54,920	50,780	40,886	37,681				
55 60	86,837 82,091	85,653 80,293	79,177 72,820			57,314 48,928	47,074 38,761	44,742 37,954	35,415 28,908	33,124 27,524				
65 70	75,653 67,169	73,266 64,729	64,716 54,873			40,504 32,354	30,852 23,341	31,044 24,107	22,302 15,871	21,995 16,140				
75	56,372	53,831	43,193			24,502	16,576	17,216	10,657	11,066				
80 85	44,096 30,096	41,686 28,004	31,756 21,358			17,039 10,622	10,822 6,033	11,151 5,972	6,324 3,029	6,708 3,567				
		,				,	-,2	-,	-,					

Table 6-4. Life Table Values by Race and Sex: Death-Registration States, 1900-1902 to 1919-21, and United States, 1929-31 to 1993—Con.
(Page 4 of 6)

[Alaska and Hawaii included beginning in 1959. For decennial periods prior to 1929-31, data are for groups of registration States as follows: 1900-1902 and 1909-11, 10 States and the District of Columbia; 1919-21, 34 States and the District of Columbia. Beginning 1970 excludes deaths of nonresidents of the United States; see Technical Appendix]

Age, race, and sex	Average number of years of life remaining $({}^{\circ}_{e_X})$												
	1993	1979-81	1969-71	1959-61	1949-51	1939-41	1929-31	1919-21	1909-11	1900-1902			
ALL RACES 0	75.5 75.2 71.3 66.4 61.5 56.7 52.0 47.3 42.7	73.88 73.82 70.00 65.10 60.19 55.46 50.81 46.12 41.43	70.75 71.19 67.43 62.57 57.69 53.00 48.37 43.71 39.07	69.89 70.75 67.04 62.19 57.33 52.58 47.89 43.18 38.51	68.07 69.16 65.54 60.74 55.91 51.20 46.56 41.91 37.31	63.62 65.76 62.49 57.82 53.10 48.54 44.09 39.67 35.30	59.20 61.94 59.29 54.84 50.25 45.94 41.85 37.75 33.68	56.40 59.94 57.99 53.79 49.37 45.30 41.47 37.68 33.89	51.49 57.11 56.21 52.15 47.73 43.53 39.60 35.70	49.24 55.20 54.98 51.14 46.81 42.79 39.12 35.51 31.92			
40	38.1 33.6 29.2 24.9 20.9 17.3 14.0 10.9 8.3 6.0	36.79 32.27 27.94 23.85 20.02 16.51 13.32 10.48 7.98 5.96	34.52 30.12 25.93 21.99 18.34 15.00 12.00 9.32 7.10 5.28	33.92 29.50 25.29 21.37 17.71 14.39 11.38 8.71 6.39 4.58	32.81 28.49 24.40 20.57 17.04 13.83 10.92 8.40 6.34 4.69	31.03 26.90 22.98 19.31 15.91 12.80 10.00 7.62 5.73 4.31	29.67 25.79 22.06 18.53 15.24 12.23 9.58 7.32 5.50 4.19	30.08 26.25 22.50 18.90 15.54 12.47 9.74 7.49 5.63 4.21	28.20 24.54 20.98 17.55 14.42 11.60 9.11 6.99 5.25 4.00	28.34 24.77 21.26 17.88 14.76 11.86 9.30 7.08 5.30 3.96			
0	72.2 71.8 68.0 63.0 58.1 53.5 48.9 44.3 39.8	70.11 70.10 66.29 61.41 56.52 51.88 47.37 42.81 38.20	67.04 67.58 63.82 58.98 54.12 49.54 45.07 40.51 35.95	66.80 67.80 64.10 59.27 54.43 49.77 45.19 40.56 35.94	65.47 66.73 63.12 58.35 53.56 48.92 44.36 39.78 35.23	61.60 64.00 60.76 56.12 51.43 46.91 42.51 38.13 33.79	57.71 60.75 58.14 53.75 49.18 44.88 40.79 36.71 32.65	55.50 59.47 57.60 53.44 49.05 44.99 41.11 37.26 33.43	49.86 55.95 55.11 51.07 46.66 42.48 38.59 34.70 30.94	47.88 54.35 54.22 50.39 46.06 42.03 38.38 34.76 31.19			
40	31.0 26.7 22.6	33.64 29.22 25.00 21.08 17.46 14.21 11.35 8.90 6.80 5.13	31.48 27.18 23.12 19.36 15.99 12.99 10.39 8.13 6.27 4.73	31.42 27.09 23.02 19.32 15.94 12.95 10.33 7.99 5.95 4.39	30.79 26.55 22.59 18.96 15.68 12.74 10.11 7.83 5.94	29.57 25.52 21.72 18.20 14.99 12.07 9.46 7.22 5.44 4.11	28.68 24.87 21.25 17.79 14.62 11.72 9.18 7.02 5.27 4.02	29.63 25.84 22.11 18.53 15.22 12.20 9.52 7.31 5.49 4.10	27.32 23.77 20.32 16.98 13.95 11.24 8.83 6.75 5.10 3.90	27.65 24.14 20.70 17.38 14.33 11.50 9.02 6.84 5.11			
FEMALE 0	78.8 78.4 74.6 69.6 64.7 59.8 55.0 50.1	77.62 77.50 73.67 68.75 63.83 58.98 54.16 49.33 44.53	74.64 74.97 71.19 66.31 61.41 56.59 51.80 47.01 42.28	73.24 73.93 70.21 65.35 60.45 55.60 50.79 46.00 41.27	70.96 71.84 68.21 63.38 58.52 53.73 48.99 44.28 39.63	65.89 67.73 64.43 59.73 54.97 50.37 45.87 41.41 37.01	60.90 65.37 60.66 56.16 51.54 47.21 43.11 39.02 34.92	57.40 60.45 58.41 54.16 49.71 45.63 41.86 38.15 34.40	53.24 58.37 57.39 53.31 48.87 44.66 40.69 36.79 32.95	50.70 56.10 55.80 51.94 47.60 43.60 39.92 36.30 32.71			
40	40.6 35.9 31.4 27.0 22.8 18.9 15.3 11.9 8.9 6.4	39.80 35.17 30.69 26.39 22.29 18.44 14.84 11.58 8.69 6.38	37.64 33.13 28.77 24.59 20.60 16.83 13.35 10.26 7.68 5.63	36.61 32.09 27.71 23.53 19.52 15.80 12.37 9.33 6.72 4.71	35.06 30.64 26.40 22.33 18.50 14.95 11.71 8.94 6.67 4.90	32.68 28.46 24.40 20.54 16.92 13.57 10.56 8.01 5.99 4.47	30.86 26.89 23.05 19.38 15.98 12.78 9.99 7.61 5.70 4.32	30.58 26.71 22.92 19.28 15.87 12.73 9.96 7.65 5.75 4.30	29.15 25.36 21.67 18.13 14.90 11.96 9.38 7.20 5.37 4.08	29.08 25.44 21.84 18.39 15.21 12.22 9.59 7.34 5.51 4.12			
WHITE 0 1 5	76.3 75.8 72.0 67.0 62.1 57.3 52.6 47.8 43.2	74.53 74.35 70.52 65.62 60.71 55.98 51.30 46.59 41.86	71.62 71.91 68.12 63.26 58.37 53.66 49.00 44.28 39.58	70.73 71.38 67.64 62.79 57.92 53.16 48.44 43.69 38.97	69.02 69.95 66.29 61.48 56.65 51.91 47.22 42.52 37.86	64.92 66.84 63.52 58.83 54.09 49.47 44.92 40.40 35.93							
40	38.5 33.9 29.5 25.2 21.1 17.4 14.0 11.0 8.3 6.0	37.17 32.60 28.21 24.05 20.16 16.59 13.35 10.47 7.95 5.90	34.95 30.48 26.21 22.19 18.48 15.08 12.01 9.27 7.01 5.19	34.33 29.84 25.57 21.58 17.84 14.44 11.37 8.65 6.33 4.53	33.29 28.88 24.70 20.77 17.15 13.86 10.89 8.34 6.27 4.62	31.54 27.29 23.26 19.47 15.98 12.80 9.96 7.55 5.64							

Table 6-4. Life Table Values by Race and Sex: Death-Registration States, 1900-1902 to 1919-21, and United States, 1929-31 to 1993—Con. (Page 5 of 6)

[Alaska and Hawaii included beginning in 1959. For decennial periods prior to 1929-31, data are for groups of registration States as follows: 1900-1902 and 1909-11, 10 States and the District of Columbia; 1919-21, 34 States and the District of Columbia. Beginning 1970 excludes deaths of nonresidents of the United States; see Technical Appendix]

Age, race, and sex	Average number of years of life remaining $({}^{\mathrm{o}}_{\mathrm{e}_{\mathrm{x}}})$													
	1993	1979-81	1969-71	1959-61	1949-51	1939-41	1929-31	1919-21	1909-11	1900-1902				
WHITE, MALE										·				
0 1 5 5 10 15 20 25 30 35	73.1 72.6 68.8 63.8 58.9 54.2 49.6 44.9	70.82 70.70 66.87 61.98 57.09 52.45 47.92 43.31 38.66	67.94 68.33 64.55 59.69 54.83 50.22 45.70 41.07 36.43	67.55 68.34 64.61 59.78 54.93 50.25 45.65 40.97 36.31	66.31 67.41 63.77 58.98 54.18 49.52 44.93 40.29 35.68	62.81 64.98 61.68 57.03 52.33 47.76 43.28 38.80 34.36	59.12 62.04 59.38 54.96 50.39 46.02 41.78 37.54 33.33	56.34 60.24 58.31 54.15 49.74 45.60 41.60 37.65 33.74	50.23 56.26 55.37 51.32 46.91 42.71 38.79 34.87 31.08	48.23 54.61 54.43 50.59 46.25 42.19 38.52 34.88 31.29				
40	35.9 31.4 27.0 22.8 18.9 15.4 12.3 9.5 7.1 5.2	34.04 29.55 25.26 21.25 17.56 14.26 11.35 8.87 6.76 5.09	31.87 27.48 23.34 19.51 16.07 13.02 10.38 8.06 6.18 4.63	31.73 27.34 23.22 19.45 16.01 12.97 10.29 7.92 5.89 4.34	31.17 26.87 22.83 19.11 15.76 12.75 10.07 7.77 5.88 4.35	30.03 25.87 21.96 18.34 15.05 12.07 9.42 7.17 5.38 4.02	29.22 25.28 21.51 17.97 14.72 11.77 9.20 7.02 5.26 3.99	29.86 26.00 22.22 18.59 15.25 12.21 9.51 7.30 5.47 4.06	27.43 23.86 20.39 17.03 13.98 11.25 8.83 6.75 5.09 3.88	27.74 24.21 20.76 17.42 14.35 11.51 9.03 6.84 5.10 3.81				
0	79.5 79.0 75.1 70.1 65.2 60.3 55.5 50.6 45.8	78.22 77.98 74.13 69.21 64.29 59.44 54.60 49.76 44.93	75.49 75.66 71.86 66.97 62.07 57.24 52.42 47.60 42.82	74.19 74.68 70.92 66.05 61.15 56.29 51.45 46.63 41.84	72.03 72.77 69.09 64.26 59.39 54.56 49.77 45.00	67.29 68.93 65.57 60.85 56.07 51.38 46.78 42.21	62.67 64.93 62.17 57.65 53.00 48.52 44.25 39.99 35.73	58.53 61.51 59.43 55.17 50.67 46.46 42.55 38.72 34.86	53.62 58.69 57.67 53.57 49.12 44.88 40.88 36.96 33.09	51.08 56.39 56.03 52.15 47.79 43.77 40.05 36.42 32.82				
40	41.0 36.3 31.7 27.2 23.0 19.0 15.3 12.0 8.9 6.4	40.16 35.49 30.96 26.61 22.45 18.55 14.89 11.58 8.65 6.32	38.12 33.54 29.11 24.85 20.79 16.93 13.37 10.21 7.59 5.54	37.13 32.53 28.08 23.81 19.69 15.88 12.38 9.28 6.67 4.66	35.64 31.12 26.76 22.58 18.64 15.00 11.68 8.87 6.59 4.83	33.25 28.90 24.72 20.73 17.00 13.56 10.50 7.92 5.88 4.34	31.52 27.39 23.41 19.60 16.05 12.81 9.98 7.56 5.63 4.24	30.94 26.98 23.12 19.40 15.93 12.75 9.94 7.62 5.70 4.24	29.26 25.45 21.74 18.18 14.92 11.97 9.38 7.20 5.35 4.06	29.17 25.51 21.89 18.43 15.23 9.59 7.33 5.50 4.10				
ALL OTHER	74.5													
0	71.5 71.5 67.7 62.8 57.9 53.2 48.7 44.2 39.7	69.84 70.19 66.43 61.56 56.67 51.93 47.34 42.82 38.34	64.95 66.02 62.36 57.53 52.68 48.08 43.71 39.37 35.12	63.91 65.75 62.21 57.41 52.57 47.88 43.35 38.89 34.56	60.73 62.65 59.25 54.50 49.73 45.19 40.85 36.59 32.44									
40	35.4 31.2 27.1 23.2 19.6 16.3 13.2 10.5 8.0 5.9	33.97 29.78 25.85 22.21 18.88 15.86 13.06 10.61 8.38 6.63	31.05 27.19 23.58 20.24 17.19 14.47 12.04 10.09 8.36 6.62	30.39 26.46 22.74 19.45 16.53 13.96 11.63 9.52 7.28 5.27	28.48 24.75 21.38 18.41 15.87 13.59 11.48 9.48 7.62 5.79									
ALL OTHER, MALE														
0	67.3 67.3 63.5 58.6 53.7 49.2 44.9 40.6 36.3	65.63 66.01 62.26 57.40 52.52 47.87 43.46 39.13 34.83	60.98 62.13 58.48 53.67 48.84 44.37 40.29 36.20 32.16	61.48 63.50 59.98 55.19 50.39 45.78 41.38 37.05 32.81	58.91 61.06 57.69 52.96 48.23 43.73 39.49 35.31 31.21	52.33 56.05 53.13 48.54 43.95 39.74 35.94 32.25 28.67								
40 45 50 55 60 65 70 75 80 85	32.2 28.2 24.3 20.6 17.3 14.3 11.5 9.1 6.9 5.1	30.64 26.63 22.92 19.56 16.54 13.83 11.36 9.20 7.22 5.69	28.29 24.64 21.24 18.14 15.35 12.87 10.68 8.99 7.57 6.04	28.72 24.89 21.28 18.11 15.29 12.84 10.81 8.93 6.87 5.08	27.29 23.59 20.25 17.36 14.91 12.75 10.74 8.83 7.07 5.38	25.23 22.02 19.18 16.67 14.38 12.18 10.06 8.09 6.46 5.08								

Table 6-4. Life Table Values by Race and Sex: Death-Registration States, 1900-1902 to 1919-21, and United States, 1929-31 to 1993—Con.

(Page 6 of 6)

[Alaska and Hawaii included beginning in 1959. For decennial periods prior to 1929-31, data are for groups of registration States as follows: 1900-1902 and 1909-11, 10 States and the District of Columbia; 1919-21, 34 States and the District of Columbia. Beginning 1970 excludes deaths of nonresidents of the United States; see Technical Appendix]

Age, race, and sex				Avera	age number of y	ears of life rema	aining $({}^{\circ}_{e_{\chi}})$			
	1993	1979-81	1969-71	1959-61	1949-51	1939-41	1929-31	1919-21	1909-11	1900-1902
ALL OTHER, FEMALE										
0	75.5	74.00	69.05	66.47	62.70	55.51				
1 5	75.4 71.6	74.31 70.53	70.01 66.34	68.10 64.54	64.37 60.93	58.47 55.47				
10 15	66.7 61.8	65.64 60.73	61.49 56.60	59.72 54.85	56.17 51.36	50.83 46.22		:::!		
20 25	56.9 52.2	55.88 51.11	51.85 47.19	50.07 45.40	46.77 42.35	42.14 38.31				
30	47.4	46.39	42.61	40.83	38.02	34.52				:::
35	42.8	41.72	38.14	36.41	33.82	30.83			• • •	
40 45	38.2 33.8	37.16 32.77	33.87 29.80	32.16 28.14	29.82 26.07	27.31 24.00				
50 55	29.5 25.3	28.59 24.66	25.97 22.37	24.31 20.89	22.67 19.62	21.04 18.44	===			
60 65	21.4 17.8	20.99 17.60	19.02 15.99	17.83 15.12	16.95	16.14				
70	14.5	14.44	13.30	12.46	14.54 12.29	13.95 11.81				
75 80	11.5 8.7	11.68 9.17	11.06 9.01	10.10 7.66	10.15 8.15	9.80 8.00		:::		
85	6.3	7.19	7.07	5.44	6.15	6.38				
BLACK										
0	69.2 69.4	68.52 68.99	64.11 65.27			53.85 57.15				
5	65.6	65.25	61.62			54.13				
15	60.7 55.8	60.38 55.49	56.79 51.94			49.50 44.89				
20 25	51.2 46.7	50.75 46.18	47.34 43.00			40.73 36.91				
30 35	42.3 37.9	41.69 37.28	38.70 34.48			33.17 29.53				
40		32.98	30.46			26.06				
45 50	29.6	28.87	26.65			22.82				
55	25.7 22.0	25.03 21.50	23.11 19.83			19.94 17.43			• • • •	
60 65	18.6 15.5	18.29 15.37	16.83 14.16			15.18 13.02		:::1		
70 75	12.6 10.2	12.67 10.32	11.77			10.93				
80	7.8	8.17	8.20			7.31				
85	5.9	6.54	6.54			5.91				
BLACK, MALE	64.6	04.40	22.22							
<u>1</u>	64.6 64.8	64.10 64.60	60.00 61.24			52.26 55.93	47.55 51.08	47.14 51.63	34.05 42.53	32.54 42.46
5 10	61.0 56.1	60.86 56.01	57.60 52.79			52.95 48.34	48.69 44.27	50.18 45.99	44.25 40.65	45.06 41.90
15 20	51.2 46.8	51.14 46.48	47.96 43.49			43.74 39.52	39.83 35.95	41.75 38.36	36.77 33.46	38.26 35.11
25 30	42.6 38.3	42.09	39.45			35.72	32.67	35.54	30.44	32.21
35	34.2	37.81 33.60	35.40 31.42			32.05 28.48	29.45 26.39	32.51 29.54	27.33 24.42	29.25 26.16
40	30.2	29.51	27.61			25.06	23.36	26.53	21.57	23.12
45 50	26.4 22.8	25.61 22.03	24.03 20.69			21.88 19.06	20.59 17.92	23.55 20.47	18.85 16.21	20.09 17.34
55 60	19.3 16.2	18.79 15.89	17.66 14.93			16.60 14.37	15.46 13.15	17.50 14.74	13.82 11.67	14.69 12.62
65 70	13.4 10.8	13.29 10.94	12.53 10.40			12.21 10.11	10.87 8.78	12.07 9.58	9.74 8.00	10.38 8.33
75 80	8.7 6.7	8.90 7.03	8.76			8.17	6.99	7.61	6.58	6.60
85	5.0	5.61	7.35 5.92			5.34	4.30	4.53	4.48	4.04
BLACK, FEMALE										
0	73.7	72.88	68.32			55.56	49.51	46.92	37.67	35.04
5	73.8 70.0	73.31 69.54	69.37 65.70			58.46 ; 55.40 j	52.33 49.81	50.39 48.70	45.15 46.42	43.54 46.04
10 15	60.2	64.65 59.74	60.85 55.97			50.75 46.13	45.33 40.87	44.54 40.36	42.84 39.18	43.02 39.79
20 25	55.3 50.6	54.90 50.13	51.22 46.57			42.04 38.20	37.22 33.93	37.15 34.35	36.14 32.97	36.89 33.90
30 35	45.9	45.43	42.00			34.40	30.67	31.48	29.61	30.70
40	1	40.79	37.56			30.83	27.47	28.58	26.44	27.52
45	32.5	36.28 31.94	33.32 29.31			27.19 23.89	24.30 21.39	25.60 22.61	23.34 20.43	24.37 21.36
50	28.3 24.3	27.84 24.00	25.52 21.97			20.95 18.38	18.60 16.27	19.76 17.09	17.65 14.98	18.67 15.88
60 65	20.6 17.1	20.42 17.13	18.66 15.67			16.10 13.95	14.22 12.24	14.69 12.41	12.78 10.82	13.60 11.38
70 75	13.9 11.1	14.05 11.37	13.02 10.85			11.82	10.38	10.25	9.22	9.62
80	8.5	8.95	8.87			9.81 8.02	8.62 6.90	8.37 6.58	7.55 6.05	7.90 6.48
85	6.3	7.09	7.00			6.41	5.48	5.22	5.09	5.10

Table 6-5. Estimated Average Length of Life in Years, by Race and Sex: Death-Registration States, 1900-28, and United States, 1929-93
[Page 1 of 2]
[For selected years, life table values shown are estimates; see Technical Appendix. Beginning 1970 excludes deaths of nonresidents of the United States; see Technical Appendix.

		All races			White	•		All other					
Area and year	D + 4h		Familia	D. II		-		Total			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	
UNITED STATES 1													
1993	75.8 75.5	72.2 72.3 72.0	78.8 79.1 78.9	76.3 76.5 76.3	73.1 73.2 72.9	79.5 79.8 79.6	71.5 71.8 71.5	67.3 67.7 67.3	75.5 75.7 75.5	69.2 69.6 69.3	64.6 65.0 64.6	73.7 73.9 73.8	
1990 1989	75.4 75.1	71.8 71.7	78.8 78.5	76.1 75.9	72.7 72.5	79.4 79.2	71.2 70.9	67.0 66.7	75.2 74.9	69.1 68.8	64.5 64.3	73.6 73.3	
1988 1987 1986 1985 1984	74.9 74.7 74.7	71.4 71.4 71.2 71.1 71.1	78.3 78.3 78.2 78.2 78.2	75.6 75.6 75.4 75.3 75.3	72.2 72.1 71.9 71.8 71.8	78.9 78.9 78.8 78.7 78.7	70.8 71.0 70.9 71.0 71.1	66.7 66.9 66.8 67.0 67.2	74.8 75.0 74.9 74.8 74.9	68.9 69.1 69.1 69.3 69.5	64.4 64.7 64.8 65.0 65.3	73.2 73.4 73.4 73.4 73.6	
1983	74.5 74.1 73.7	71.0 70.8 70.4 70.0 70.0	78.1 78.1 77.8 77.4 77.8	75.2 75.1 74.8 74.4 74.6	71.6 71.5 71.1 70.7 70.8	78.7 78.7 78.4 78.1 78.4	70.9 70.9 70.3 69.5 69.8	67.0 66.8 66.2 65.3 65.4	74.7 74.9 74.4 73.6 74.1	69.4 69.4 68.9 68.1 68.5	65.2 65.1 64.5 63.8 64.0	73.5 73.6 73.2 72.5 72.9	
1978	73.3 72.9 72.6	69.6 69.5 69.1 68.8 68.2	77.3 77.2 76.8 76.6 75.9	74.1 74.0 73.6 73.4 72.8	70.4 70.2 69.9 69.5 69.0	78.0 77.9 77.5 77.3 76.7	69.3 68.9 68.4 68.0 67.1	65.0 64.7 64.2 63.7 62.9	73.5 73.2 72.7 72.4 71.3	68.1 67.7 67.2 66.8 66.0	63.7 63.4 62.9 62.4 61.7	72.4 72.0 71.6 71.3 70.3	
1973	71.2 71.1 70.8	67.6 67.4 67.4 67.1 66.8	75.3 75.1 75.0 74.7 74.4	72.2 72.0 72.0 71.7 71.4	68.5 68.3 68.3 68.0 67.7	76.1 75.9 75.8 75.6 75.3	66.1 65.7 65.6 65.3 64.5	62.0 61.5 61.6 61.3 60.6	70.3 70.1 69.8 69.4 68.6	65.0 64.7 64.6 64.1	60.9 60.4 60.5 60.0	69.3 69.1 68.9 68.3	
1968 1967 1966 1965 1964	70.5 70.2 70.2	66.6 67.0 66.7 66.8 66.8	74.1 74.3 73.9 73.8 73.7	71.1 71.4 71.1 71.1 71.0	67.5 67.8 67.5 67.6 67.7	75.0 75.2 74.8 74.8 74.7	64.1 64.9 64.2 64.3 64.2	60.4 61.4 60.9 61.2 61.3	67.9 68.5 67.6 67.6 67.3				
1963 ³	70.1 70.2 69.7	66.6 66.9 67.1 66.6 66.8	73.4 73.5 73.6 73.1 73.2	70.8 70.9 71.0 70.6 70.7	67.4 67.7 67.8 67.4 67.5	74.4 74.5 74.6 74.1 74.2	63.7 64.2 64.5 63.6 63.9	61.0 61.6 62.0 61.1 61.3	66.6 66.9 67.1 66.3 66.5				
1958 1957 1956 1955 1954	69.5 69.7 69.6	66.6 66.4 66.7 66.7 66.7	72.9 72.7 72.9 72.8 72.8	70.5 70.3 70.5 70.5 70.5	67.4 67.2 67.5 67.4 67.5	73.9 73.7 73.9 73.7 73.7	63.4 63.0 63.6 63.7 63.4	61.0 60.7 61.3 61.4 61.1	65.8 65.5 66.1 66.1 65.9				
1953 1952 1951 1950 1949	68.6 68.4 68.2	66.0 65.8 65.6 65.6 65.2	72.0 71.6 71.4 71.1 70.7	69.7 69.5 69.3 69.1 68.8	66.8 66.6 66.5 66.5 66.2	73.0 72.6 72.4 72.2 71.9	62.0 61.4 61.2 60.8 60.6	59.7 59.1 59.2 59.1 58.9	64.5 63.8 63.4 62.9 62.7				
1948 1947 1946 1945	66.8 66.7 65.9	64.6 64.4 64.4 63.6 63.6	69.9 69.7 69.4 67.9 66.8	68.0 67.6 67.5 66.8 66.2	65.5 65.2 65.1 64.4 64.5	71.0 70.5 70.3 69.5 68.4	60.0 59.7 59.1 57.7 56.6	58.1 57.9 57.5 56.1 55.8	62.5 61.9 61.0 59.6 57.7				
1943	66.2 64.8 62.9	62.4 64.7 63.1 60.8 62.1	64.4 67.9 66.8 65.2 65.4	64.2 67.3 66.2 64.2 64.9	63.2 65.9 64.4 62.1 63.3	65.7 69.4 68.5 66.6 66.6	55.6 56.6 53.8 53.1 54.5	55.4 55.4 52.5 51.5 53.2	56.1 58.2 55.3 54.9 56.0				
1938 1937 1936 1935 1934	60.0 58.5 61.7	61.9 58.0 56.6 59.9 59.3	65.3 62.4 60.6 63.9 63.3	65.0 61.4 59.8 62.9 62.4	63.2 59.3 58.0 61.0 60.5	66.8 63.8 61.9 65.0 64.6	52.9 50.3 49.0 53.1 51.8	51.7 48.3 47.0 51.3 50.2	54.3 52.5 51.4 55.2 53.7				
1933 1932 1931 1930 1929	62.1 61.1 59.7	61.7 61.0 59.4 58.1 55.8	65.1 63.5 63.1 61.6 58.7	64.3 63.2 62.6 61.4 58.6	62.7 62.0 60.8 59.7 57.2	66.3 64.5 64.7 63.5 60.3	54.7 53.7 50.4 48.1 46.7	53.5 52.8 49.5 47.3 45.7	56.0 54.6 51.5 49.2 47.8				

Table 6-5. Estimated Average Length of Life in Years, by Race and Sex: Death-Registration States, 1900-28, and United States, 1929-93—Con.

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

		All races			White		All other						
Area and year	Both sexes	Male	Female	Both sexes	Male	Female		Total			Black		
	Dotti Sexes	Wate	remale	DOIII SEXES	Male	гептаве	Both sexes	Male	Female	Both sexes	Male	Female	
DEATH-REGISTRATION STATES													
1928	56.8 60.4 56.7 59.0	55.6 59.0 55.5 57.6	58.3 62.1 58.0 60.6	58.4 62.0 58.2 60.7	57.0 60.5 57.0 59.3	60.0 63.9 59.6 62.4	46.3 48.2 44.6 45.7	45.6 47.6 43.7 44.9	47.0 48.9 45.6 46.7				
1924	59.7 57.2 59.6 60.8 54.1	58.1 56.1 58.4 60.0 53.6	61.5 58.5 61.0 61.8 54.6	61.4 58.3 60.4 61.8 54.9	59.8 57.1 59.1 60.8 54.4	63.4 59.6 61.9 62.9 55.6	46.6 48.3 52.4 51.5 45.3	45.5 47.7 51.8 51.6 45.5	47.8 48.9 53.0 51.3 45.2				
1919	54.7 39.1 50.9 51.7 54.5	53.5 36.6 48.4 49.6 52.5	56.0 42.2 54.0 54.3 56.8	55.8 39.8 52.0 52.5 55.1	54.5 37.1 49.3 50.2 53.1	57.4 43.2 55.3 55.2 57.5	44.5 31.1 38.8 41.3 38.9	44.5 29.9 37.0 39.6 37.5	44.4 32.5 40.8 43.1 40.5				
1914	54.2 52.5 53.5 52.6 50.0	52.0 50.3 51.5 50.9 48.4	56.8 55.0 55.9 54.4 51.8	54.9 53.0 53.9 53.0 50.3	52.7 50.8 51.9 51.3 48.6	57.5 55.7 56.2 54.9 52.0	38.9 38.4 37.9 36.4 35.6	37.1 36.7 35.9 34.6 33.8	40.8 40.3 40.0 38.2 37.5				
1909 1908 1907 1906 1906	52.1 51.1 47.6 48.7 48.7	50.5 49.5 45.6 46.9 47.3	53.8 52.8 49.9 50.8 50.2	52.5 51.5 48.1 49.3 49.1	50.9 49.9 46.0 47.3 47.6	54.2 53.3 50.4 51.4 50.6	35.7 34.9 32.5 32.9 31.3	34.2 33.8 31.1 31.8 29.6	37.3 36.0 34.0 33.9 33.1				
1904	47.6 50.5 51.5 49.1 47.3	46.2 49.1 49.8 47.6 46.3	49.1 52.0 53.4 50.6 48.3	48.0 50.9 51.9 49.4 47.6	46.6 49.5 50.2 48.0 46.6	49.5 52.5 53.8 51.0 48.7	30.8 33.1 34.6 33.7 33.0	29.1 31.7 32.9 32.2 32.5	32.7 34.6 36.4 35.3 33.5				

Alaska included in 1959 and Hawaii in 1960.

Deaths based on a 50-percent sample.

Figures by race exclude data for residents of New Jersey; see Technical Appendix.

This document is hereby certified as an official Federal document and is fully admissible as evidence in Federal court. Under Federal Rule of Evidence 902: "Self-authentication," (FED.R.EVID.902), no extrinsic evidence of authenticity, that is seal or stamp, is required as a condition for admissibility of this document as evidence in court.

DEPARTMENT OF HEALTH & HUMAN SERVICES

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