United States Life Tables, 2020

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Abstract

Objectives—This report presents complete period life tables for the United States by Hispanic origin, race, and sex, based on age-specific death rates in 2020.

Methods—Data used to prepare the 2020 life tables are 2020 final mortality statistics; July 1, 2020, population estimates based on the 2010 decennial census; and 2020 Medicare data for people aged 66–99. The methodology used to estimate the life tables for the Hispanic population remains unchanged from that developed for the publication of life tables by Hispanic origin for data year 2006. The same methodology is used to estimate the life tables for the non-Hispanic American Indian or Alaska Native (AIAN) and non-Hispanic Asian populations. The methodology used to estimate the 2020 life tables for all other groups was first implemented with data year 2008.

Results—In 2020, the overall expectation of life at birth was 77.0 years, decreasing 1.8 years from 78.8 in 2019. From 2019 to 2020, life expectancy at birth decreased by 2.1 years for males (76.3 to 74.2) and by 1.5 years for females (81.4 to 79.9). In 2020, life expectancy decreased from 2019 by 4.7 years for the non-Hispanic AIAN population (71.8 to 67.1) and by 4.0 years for the Hispanic population (81.9 to 77.9), 3.3 years for the non-Hispanic Black population (74.8 to 71.5), 2.0 years for the non-Hispanic Asian population (85.6 to 83.6), and 1.4 years for the non-Hispanic White population (78.8 to 77.4).

Keywords: life expectancy • survival • death rates • Hispanic origin • race • National Vital Statistics System

Introduction

Life tables are of two types: the cohort (or generation) life table and the period (or current) life table. The cohort life table presents the mortality experience of a particular birth cohort—all people 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 just a single complete cohort life table requires data over many years. It is usually not feasible to construct cohort life tables entirely based on observed data for real cohorts due to data unavailability or incompleteness (1). For example, a life table representation of the mortality experience of a cohort of people born in 1970 would require the use of data projection techniques to estimate deaths into the future (2,3).

The period life table, by contrast, presents what would happen to a hypothetical cohort if it experienced throughout its entire life the mortality conditions of a particular period in time. For example, a period life table for 2020 assumes a hypothetical cohort that is subject throughout its lifetime to the age-specific death rates prevailing for the actual population in 2020. Consequently, the period life table may be characterized as rendering a "snapshot" of current mortality experience by showing 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.

Life tables can be classified in two ways according to the length of the age interval in which data are presented. A complete life table contains data for every single year of age. An abridged life table typically contains data by 5- or 10-year age intervals. A complete life table can easily be combined into 5- or 10-year age groups (see Technical Notes for instructions). Other than the decennial life tables, U.S. life tables based on data before 1997 are abridged life tables constructed by reference to a standard table (4).

Complete period life tables are presented in this report by sex for the Hispanic, non-Hispanic American Indian or Alaska Native (AIAN), non-Hispanic Asian, non-Hispanic Black, and non-Hispanic White populations, based on the 1997 Office of Management and Budget (OMB) revised standards for the reporting of race and ethnicity (5). These categories differ from the bridged-race categories shown in previous reports for 2000–2017. Comparisons between data years 2000–2017 and

2018–2020 should be interpreted considering these differences. Life expectancy estimates for bridged-race categories are included in this report for 2006–2020 to document the effect of the change in race standards and to show trends. 2020 will be the last year for which estimates for bridged-race categories will be presented in this report. The Hispanic category is consistent with previous reports because the classification of Hispanic origin did not change between standards (5,6). In the remainder of this report, the term "race" refers to "single race" based on the 1997 standard (see Technical Notes and "Comparability of Race-specific Mortality Data Based on 1977 Versus 1997 Reporting Standards" for more information on differences between single- and bridged-race groups) (7).

Data and Methods

The data used to prepare the U.S. life tables for 2020 are final numbers of deaths for 2020; July 1, 2020, population estimates based on the 2010 decennial census; and age-specific death and population counts for Medicare beneficiaries aged 66–99 for 2020 from the Centers for Medicare & Medicaid Services. Data from the Medicare program were used to supplement vital statistics and census data for ages 66 and over for the total, non-Hispanic Black, and non-Hispanic White populations. Because reliable Medicare data were not available for the Hispanic, non-Hispanic AIAN, and non-Hispanic Asian populations, statistical modeling was used to produce reliable old-age mortality estimates. The U.S. life tables by Hispanic origin and race are based on death rates that have been adjusted for race and ethnicity misclassification on death certificates,

using classification ratios (or correction factors) generated from studies that evaluate Hispanic-origin and race misclassification on death certificates in the United States (8–11). (See Technical Notes for a detailed description of the data sets and methodology used to estimate the life tables and life table partitioning by cause of death.)

Expectation of life

The most frequently used life table statistic is life expectancy (e_x), which is the average number of years of life remaining for people who have reached a given age (x). Life expectancy and other life table values for each age in 2020 are shown for the total population and by Hispanic origin, race, and sex in Tables 1–18. Life expectancy is summarized by age, Hispanic origin, race, and sex in Table A.

Life expectancy at birth (e_0) for 2020 for the total population was 77.0 years. This represents the average number of years that the members of the hypothetical life table cohort can expect to live at the time of birth (Table A).

Survivors to specified ages

Another way to assess the longevity of the period life table cohort is to determine the proportion that survives to specified ages. The l_x column of the life table provides the data for computing this proportion. Table B summarizes the number of survivors by age, Hispanic origin, race, and sex. To illustrate, 53,346 people out of the original 2020 hypothetical life table cohort of 100,000 (or 53.3 %) were alive at exact age 80. In other words, the probability that a person will survive from birth to age

Table A. Expectation of life, by age, Hispanic origin and race, and sex: United States, 2020

Age (years)	All origins and races			Hispanic[1]			Non-Hispanic American Indian or Alaska Native[1]			Non-Hispanic Asian[1]			Non-Hispanic Black[1]			Non-Hispanic White[1]		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
0.	77.0	74.2	79.9	77.9	74.6	81.3	67.1	63.8	70.7	83.6	81.1	85.9	71.5	67.8	75.4	77.4	74.8	80.1
1.	76.4	73.6	79.3	77.3	74.0	80.7	66.7	63.3	70.2	82.9	80.4	85.2	71.3	67.5	75.1	76.7	74.2	79.4
5.	72.5	69.7	75.3	73.4	70.0	76.7	62.8	59.5	66.3	78.9	76.4	81.2	67.4	63.7	71.2	72.8	70.2	75.5
10.	67.5	64.7	70.4	68.4	65.1	71.8	57.9	54.6	61.4	74.0	71.5	76.3	62.5	58.7	66.2	67.8	65.3	70.5
15.	62.6	59.8	65.4	63.4	60.1	66.8	53.0	49.7	56.5	69.0	66.5	71.3	57.6	53.8	61.3	62.9	60.3	65.5
20.	57.7	55.0	60.5	58.6	55.3	61.9	48.3	45.1	51.8	64.1	61.6	66.4	52.9	49.3	56.5	58.0	55.5	60.6
25.	53.0	50.5	55.7	53.9	50.7	57.1	43.8	40.7	47.1	59.3	56.8	61.4	48.4	45.0	51.7	53.3	50.9	55.8
30.	48.4	45.9	50.9	49.2	46.1	52.2	39.7	36.7	42.7	54.4	52.0	56.5	44.0	40.8	47.0	48.6	46.3	51.0
35.	43.8	41.5	46.2	44.5	41.6	47.4	35.8	33.0	38.7	49.6	47.1	51.6	39.5	36.5	42.4	44.1	41.9	46.3
40.	39.3	37.0	41.5	39.9	37.1	42.6	32.1	29.4	34.8	44.7	42.4	46.7	35.2	32.4	37.9	39.5	37.4	41.6
45.	34.8	32.7	36.9	35.3	32.7	37.9	28.3	25.9	30.8	39.9	37.7	41.8	31.0	28.3	33.5	35.0	33.1	37.0
50.	30.4	28.4	32.4	30.9	28.4	33.3	25.0	22.8	27.2	35.2	33.0	37.0	26.9	24.3	29.2	30.6	28.8	32.5
55.	26.2	24.3	28.0	26.6	24.2	28.8	21.8	19.8	23.8	30.6	28.6	32.3	23.0	20.6	25.1	26.4	24.7	28.1
60.	22.2	20.5	23.8	22.6	20.4	24.5	18.9	17.2	20.4	26.2	24.3	27.7	19.4	17.2	21.3	22.4	20.8	23.9
65.	18.5	17.0	19.8	18.8	16.9	20.4	16.0	14.6	17.3	21.9	20.3	23.2	16.2	14.3	17.8	18.6	17.2	19.9
70.	14.9	13.7	15.9	15.3	13.6	16.5	13.2	12.2	14.1	17.9	16.5	18.9	13.2	11.6	14.5	14.9	13.8	16.0
75.	11.6	10.6	12.4	11.9	10.6	12.9	10.7	9.9	11.3	14.0	12.9	14.8	10.5	9.2	11.4	11.6	10.6	12.4
80.	8.6	7.8	9.2	8.9	7.9	9.5	8.5	8.0	8.7	10.5	9.6	11.1	8.0	7.0	8.6	8.6	7.8	9.2
85.	6.1	5.5	6.5	6.4	5.6	6.7	6.5	6.2	6.6	7.4	6.8	7.8	5.9	5.2	6.3	6.1	5.5	6.5
90.	4.2	3.7	4.4	4.4	3.8	4.5	4.9	4.7	4.9	5.0	4.6	5.2	4.3	3.8	4.4	4.1	3.7	4.3
95.	2.8	2.5	2.9	3.0	2.6	3.0	3.8	3.7	3.6	3.3	3.0	3.3	3.1	2.8	3.2	2.8	2.5	2.9
100.	2.0	1.8	2.0	2.1	1.9	2.1	2.9	2.9	2.8	2.3	2.1	2.2	2.3	2.1	2.3	2.0	1.8	2.0

[1]Life tables by Hispanic origin and race are based on death rates that have been adjusted for race and ethnicity misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

Table B. Number of survivors out of 100,000 born alive, by age, Hispanic origin and race, and sex: United States, 2020

Age (years)	All origins and races Total	Male	Female	Hispanic[1] Total	Male	Female	Non-Hispanic American Indian or Alaska Native[1] Total	Male	Female	Non-Hispanic Asian[1] Total	Male	Female	Non-Hispanic Black[1] Total	Male	Female	Non-Hispanic White[1] Total	Male	Female
0	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
1	99,461	99,415	99,508	99,532	99,493	99,573	99,241	99,168	99,316	99,689	99,671	99,708	98,967	98,884	99,052	99,562	99,526	99,600
5	99,377	99,313	99,429	99,460	99,415	99,508	99,002	98,898	99,111	99,638	99,621	99,657	98,794	98,705	98,906	99,480	99,425	99,538
10	99,323	99,254	99,381	99,415	99,369	99,465	98,877	98,790	98,972	99,606	99,593	99,622	98,689	98,596	98,819	99,431	99,366	99,500
15	99,242	99,155	99,317	99,344	99,291	99,403	98,716	98,585	98,855	99,560	99,539	99,582	98,551	98,431	98,727	99,355	99,265	99,448
20	98,952	98,741	99,157	99,080	98,921	99,249	98,079	97,779	98,383	99,400	99,382	99,479	97,970	97,547	98,459	99,111	98,927	99,304
25	98,415	97,961	98,876	98,602	98,219	99,015	96,925	96,250	97,610	99,135	99,082	99,350	96,936	95,995	97,964	98,646	98,273	99,039
30	97,725	96,994	98,479	98,002	97,332	98,726	95,047	93,789	96,351	98,889	98,754	99,222	95,828	94,418	97,351	97,984	97,369	98,633
35	96,856	95,815	97,933	97,291	96,337	98,333	92,276	90,539	94,103	98,613	98,388	99,071	94,477	92,563	96,510	97,107	96,191	98,070
40	95,794	94,420	97,215	96,418	95,102	97,851	88,796	86,372	91,330	98,264	97,881	98,865	92,799	90,333	95,362	96,031	94,801	97,320
45	94,471	92,731	96,266	95,297	93,549	97,191	85,128	81,962	88,437	97,782	97,203	98,554	90,658	87,635	93,746	94,722	93,154	96,362
50	92,680	90,497	94,928	93,695	91,444	96,132	79,925	75,635	84,417	97,012	96,133	98,042	87,851	84,131	91,592	92,976	91,027	95,015
55	90,115	87,332	92,979	91,325	88,384	94,516	73,946	68,906	79,239	95,785	94,434	97,221	84,012	79,438	88,571	90,499	88,016	93,094
60	86,376	82,736	90,111	87,768	83,770	92,084	66,875	60,578	73,514	93,991	91,910	96,041	78,572	72,901	84,200	86,906	83,646	90,302
65	81,181	76,439	86,039	82,693	77,408	88,345	59,059	52,078	66,470	91,202	87,964	94,206	71,104	64,034	78,108	81,945	77,663	86,395
70	74,466	68,491	80,574	75,945	68,979	83,244	50,767	42,836	59,262	86,892	82,298	91,037	61,788	53,210	70,247	75,531	70,099	81,164
75	65,565	58,588	72,737	67,055	58,488	75,942	41,271	33,305	50,051	80,678	74,712	86,020	51,101	41,552	60,589	66,755	60,346	73,419
80	53,346	45,661	61,298	55,278	45,707	65,134	30,807	23,623	38,925	71,468	64,046	78,165	38,680	29,200	48,213	54,434	47,242	61,940
85	37,700	30,276	45,424	39,857	30,344	49,467	20,376	14,955	26,586	57,178	48,731	64,816	25,336	17,281	33,536	38,463	31,358	45,884
90	20,447	14,824	26,271	22,489	15,009	29,682	11,145	7,779	14,906	37,395	29,498	44,377	12,856	7,605	18,298	20,779	15,321	26,448
95	6,889	4,216	9,599	8,143	4,343	11,374	4,549	3,010	6,072	16,399	11,372	20,370	4,422	2,172	6,724	6,867	4,239	9,510
100	1,142	549	1,727	1,523	583	2,155	1,271	805	1,608	3,760	2,182	4,715	892	352	1,403	1,088	514	1,646

[1]Life tables by Hispanic origin and race are based on death rates that have been adjusted for race and ethnicity misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

80, given 2020 age-specific mortality, is 53.3%. Probabilities of survival can be calculated at any age by dividing the number of survivors at the terminal age by the number at the beginning age. For example, to calculate the probability of surviving from age 20 to age 85, one would divide the number of survivors at age 85 (37,700) by the number of survivors at age 20 (98,952), which results in a 38.1% probability of survival.

Explanation of the columns of the life table

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

Column 2. Probability of dying (q_x)—Shows the probability of dying between ages *x* and *x* + 1. For example, for males in the age interval 20–21 years, the probability of dying is 0.001320 (Table 2). This column forms the basis of the life table; all subsequent columns are calculated from it.

Column 3. Number surviving (l_x)—Shows the number of people from the original hypothetical cohort of 100,000 live births who survive to the beginning of each age interval. The l_x values are computed from the q_x values, which are successively applied to the remainder of the original 100,000 people still alive at the beginning of each age interval. Consequently, out of 100,000 female babies born alive, 99,508 will complete the first year of life and enter the second; 99,381 will reach age 10; 99,157 will reach age 20; and 45,424 will live to age 85 (Table 3).

Column 4. Number dying (d_x)—Shows the number dying in each successive age interval out of the original 100,000 live births. For example, out of 100,000 males born alive, 585 will die in the first year of life; 130 between ages 20 and 21; and 549 after reaching age 100 (Table 2). Each figure in column 4 is the difference between two successive figures in column 3.

Column 5. Person-years lived (L_x)—Shows the number of person-years lived by the hypothetical life table cohort within an age interval *x* to *x* + 1. Each figure in column 5 represents the total time (in years) lived between two indicated birthdays by all those reaching the earlier birthday. Consequently, the figure 98,676 for males in the age interval 20–21 is the total number of years lived between the 20th and 21st birthdays by the 98,741 males (column 3) who reached their 20th birthday out of 100,000 males born alive (Table 2).

Column 6. Total number of person-years lived (T_x)—Shows the total number of person-years that would be lived after the beginning of the age interval *x* to *x* + 1 by the hypothetical life table cohort. For example, 5,434,518 is the total number of years lived after reaching age 20 by the 98,741 males who reached that age (Table 2).

Column 7. Expectation of life (e_x)—The expectation of life at any given age is the average number of years remaining to be lived by those surviving to that age, based on a given set of age-specific rates of dying. It is calculated by dividing the total person-years that would be lived beyond age *x* by the number of people who survived to that age interval (T_x/l_x). Consequently, the average remaining lifetime for males who reach age 20 is 55.0 years (5,434,518 divided by 98,741) (Table 2).

Results

Life expectancy in the United States

Tables 1–18 show complete life tables for 2020 by Hispanic origin, race, and sex. Table A summarizes life expectancy by age, Hispanic origin, race, and sex. Life expectancy at birth for 2020 represents the average number of years that a group of infants would live if they were to experience throughout life the age-specific death rates prevailing in 2020. In 2020, life expectancy at birth was 77.0 years, decreasing by 1.8 years from 78.8 in 2019 (Table 19).

The difference in life expectancy between the sexes was 5.7 years in 2020, increasing 0.6 year from 2019. From 1900 to 1975, the difference in life expectancy between the sexes increased from 2.0 years to 7.8 years (Figure 1, Table 19). The increasing gap during these years is attributed to increases in male mortality due to ischemic heart disease and lung cancer, both of which increased largely as the result of men's early and widespread adoption of cigarette smoking (12). Between 1979 and 2010, the difference in life expectancy between the sexes narrowed from 7.8 years to 4.8 years, and then increased to 5.7 in 2020 (Figure 1, Table 19).

The 2020 life table may be used to compare life expectancy at any age from birth onward. Based on mortality experienced in 2020, a person aged 65 could expect to live an average of 18.5 more years for a total of 83.5 years; a person aged 85 could expect to live an additional 6.1 years for a total of 91.1 years; and a person aged 100 could expect to live an additional 2.0 years, on average (Table A).

Life expectancy by Hispanic origin and race

In 2020, the non-Hispanic Asian population had the highest life expectancy at birth (83.6 years), followed by the Hispanic (77.9), non-Hispanic White (77.4), non-Hispanic Black (71.5), and non-Hispanic AIAN (67.1) populations (Table A, Figure 2). From 2019 to 2020, life expectancy at birth declined for all Hispanic-origin and race populations (Figure 2). Life expectancy decreased by 4.7 years for the non-Hispanic AIAN population (71.8 to 67.1), 4.0 years for the Hispanic population (81.9 to 77.9), 3.3 years for the non-Hispanic Black population (74.8 to 71.5), 2.0 years for the non-Hispanic Asian population (85.6 to 83.6), and 1.4 years for the non-Hispanic White population (78.8 to 77.4).

Among the 10 Hispanic-origin and race–sex groups (Figure 3), non-Hispanic Asian females had the highest life expectancy at birth (85.9 years), followed by Hispanic females (81.3), non-Hispanic Asian males (81.1), non-Hispanic White females (80.1), non-Hispanic Black females (75.4), non-Hispanic White males (74.8), Hispanic males (74.6), non-Hispanic AIAN females (70.7), non-Hispanic Black males (67.8), and non-Hispanic AIAN males (63.8). Disparities in life expectancy at birth between groups range from 0.2 year between Hispanic females and non-Hispanic Asian males to 22.1 years between non-Hispanic Asian females and non-Hispanic AIAN males. The long-standing Hispanic life expectancy advantage over the

Figure 1. Life expectancy, by sex: United States, 1900–2020

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.
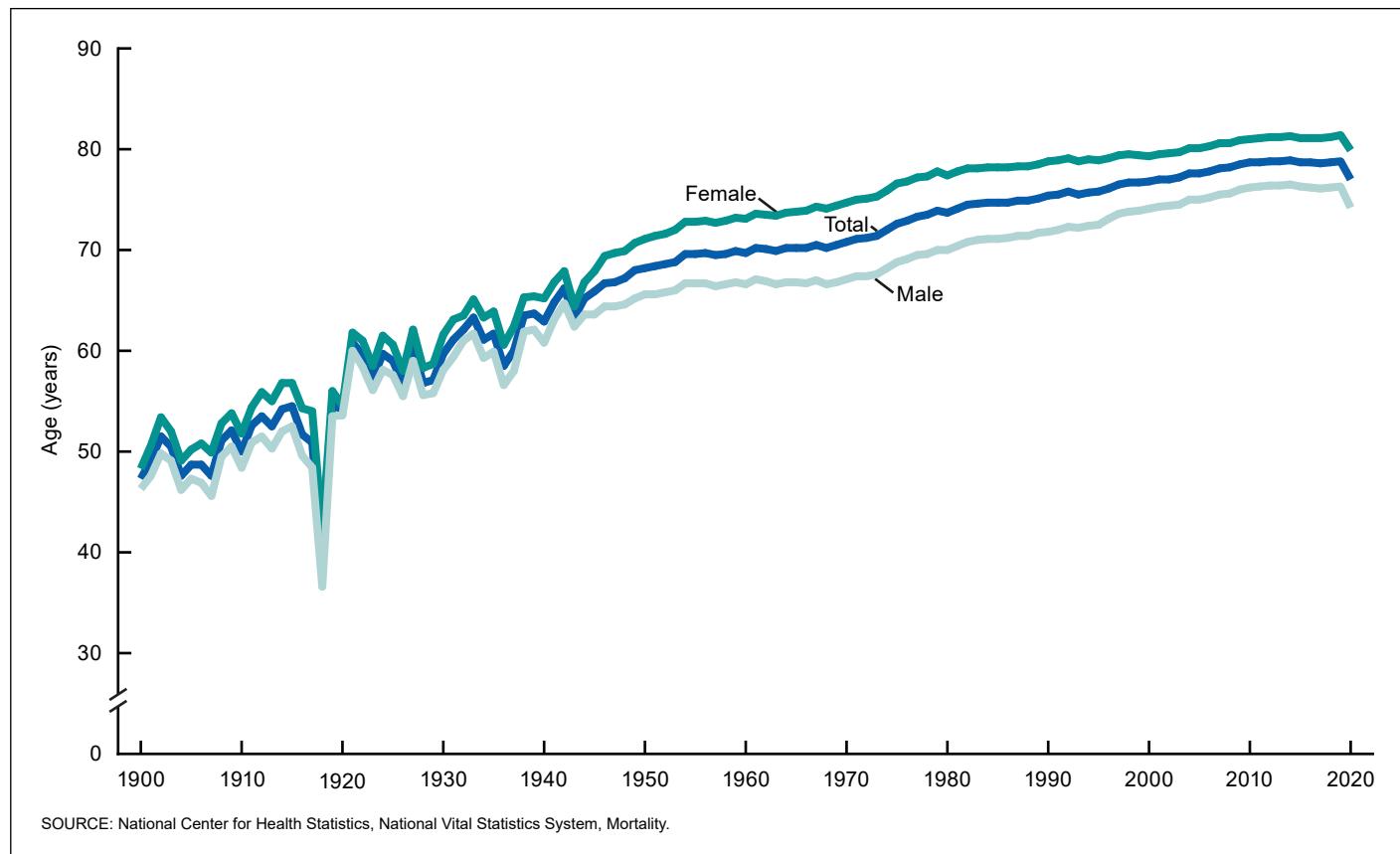
Figure 2. Life expectancy at birth, by Hispanic origin and race: United States, 2019 and 2020

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.
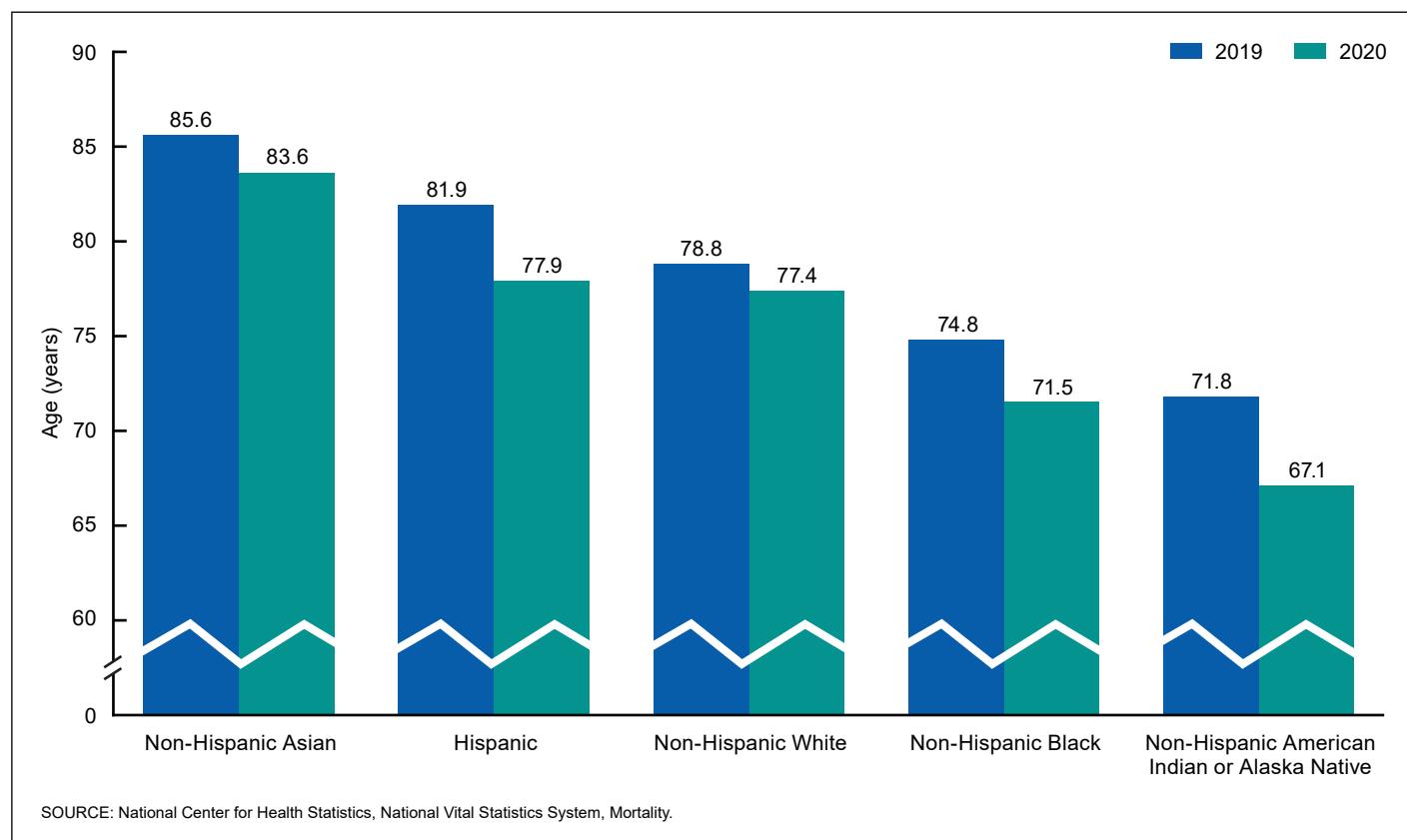
Figure 3. Life expectancy at birth, by Hispanic origin and race and sex: United States, 2020

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.
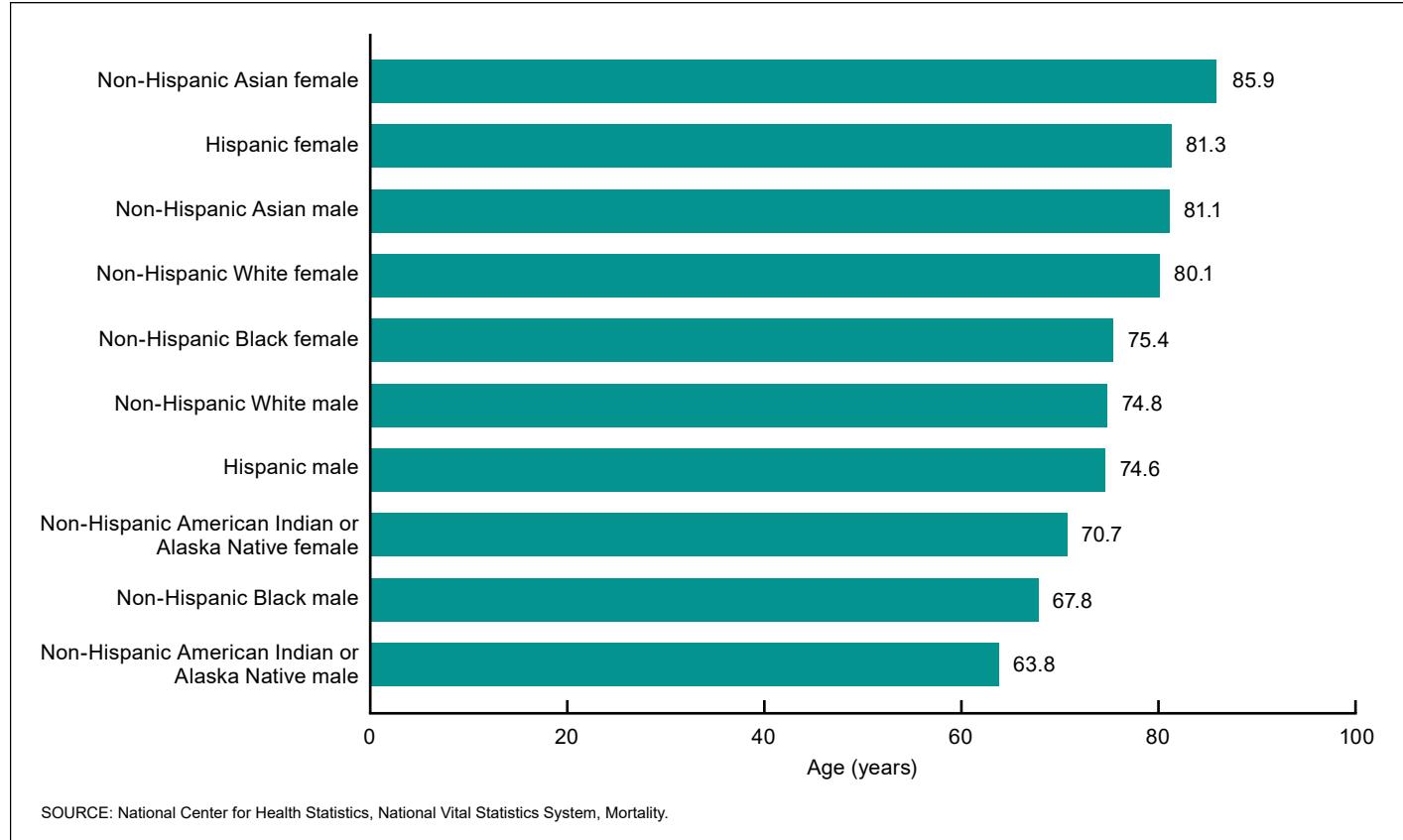
non-Hispanic White population declined to 0.5 year in 2020 from 3.1 years in 2019. Between 2006 and 2019, the Hispanic to non-Hispanic White life expectancy advantage increased from 2.1 to 3.1 years (Table 19).

Life expectancy at birth declined for all Hispanic-origin–race–sex groups from 2019 to 2020 (Figure 4). The decrease was greatest for non-Hispanic AIAN males whose life expectancy declined by 4.8 years (68.6 to 63.8), followed by Hispanic males with a decline of 4.5 years (79.1 to 74.6), non-Hispanic AIAN females with a decline of 4.3 years (75.0 to 70.7), non-Hispanic Black males with a decline of 3.5 years (71.3 to 67.8), Hispanic females with a decline of 3.1 years (84.4 to 81.3), non-Hispanic Black females with a decline of 2.7 years (78.1 to 75.4), non-Hispanic Asian males with a decline of 2.4 years (83.5 to 81.1), non-Hispanic White males with a decline of 1.5 years (76.3 to 74.8), non-Hispanic Asian females with a decline of 1.5 years (87.4 to 85.9), and non-Hispanic White females with a decline of 1.2 years (81.3 to 80.1).

Effect of cause-specific mortality changes on life expectancy

Changes in mortality by age and cause of death can have a major effect on life expectancy (Figures 5–7). Declines in cause-specific mortality contribute to increases in life expectancy, while increases in cause-specific mortality contribute to decreases in life expectancy. The decline of 1.8 years in life expectancy from 2019 to 2020 was primarily due to increases in mortality from

COVID-19 (61.2% of the negative contribution), unintentional injuries (11.7%), heart disease (5.8%), homicide (2.9%), and diabetes (2.8%) (Figure 5). The decline in life expectancy would have been even greater if not for the offsetting effects of decreases in mortality due to cancer (43.1%), Chronic lower respiratory diseases (24.9%), Perinatal conditions (9.5%), suicide (8.1%), and Congenital abnormalities (3.5%) (see Technical Notes for a description of the life table partitioning method) (13).

The non-Hispanic AIAN population experienced the largest decline in life expectancy from 2019 to 2020 (4.7 years) (Figure 5). This decrease was primarily due to increases in mortality due to COVID-19 (60.3%), unintentional injuries (9.6%), chronic liver disease (7.6%), diabetes (3.5%), and heart disease (2.6%). The decline in life expectancy would have been greater if not for the offsetting effects of decreases in mortality due to Chronic lower respiratory diseases (17.9%), pneumonitis (16.6%), kidney disease (13.3%), cancer (12.7%), and Perinatal conditions (11.5%).

The second-greatest decline in life expectancy was experienced by the Hispanic population (4.0 years) (Figure 6). The decline was due primarily to increases in mortality due to COVID-19 (72.3%), heart disease (6.2%), unintentional injuries (4.9%), diabetes (2.6%), and Alzheimer disease (1.8%). The decrease in life expectancy was offset by decreases in mortality due to cancer (37.2%), Perinatal conditions (20.6%), Congenital abnormalities (13.2%), and viral hepatitis (7.5%).

The third-largest decrease in life expectancy was experienced by the non-Hispanic Black population (3.3 years) (Figure 6).

Figure 4. Change in life expectancy at birth, by Hispanic origin and race and sex: United States, from 2019 to 2020

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.
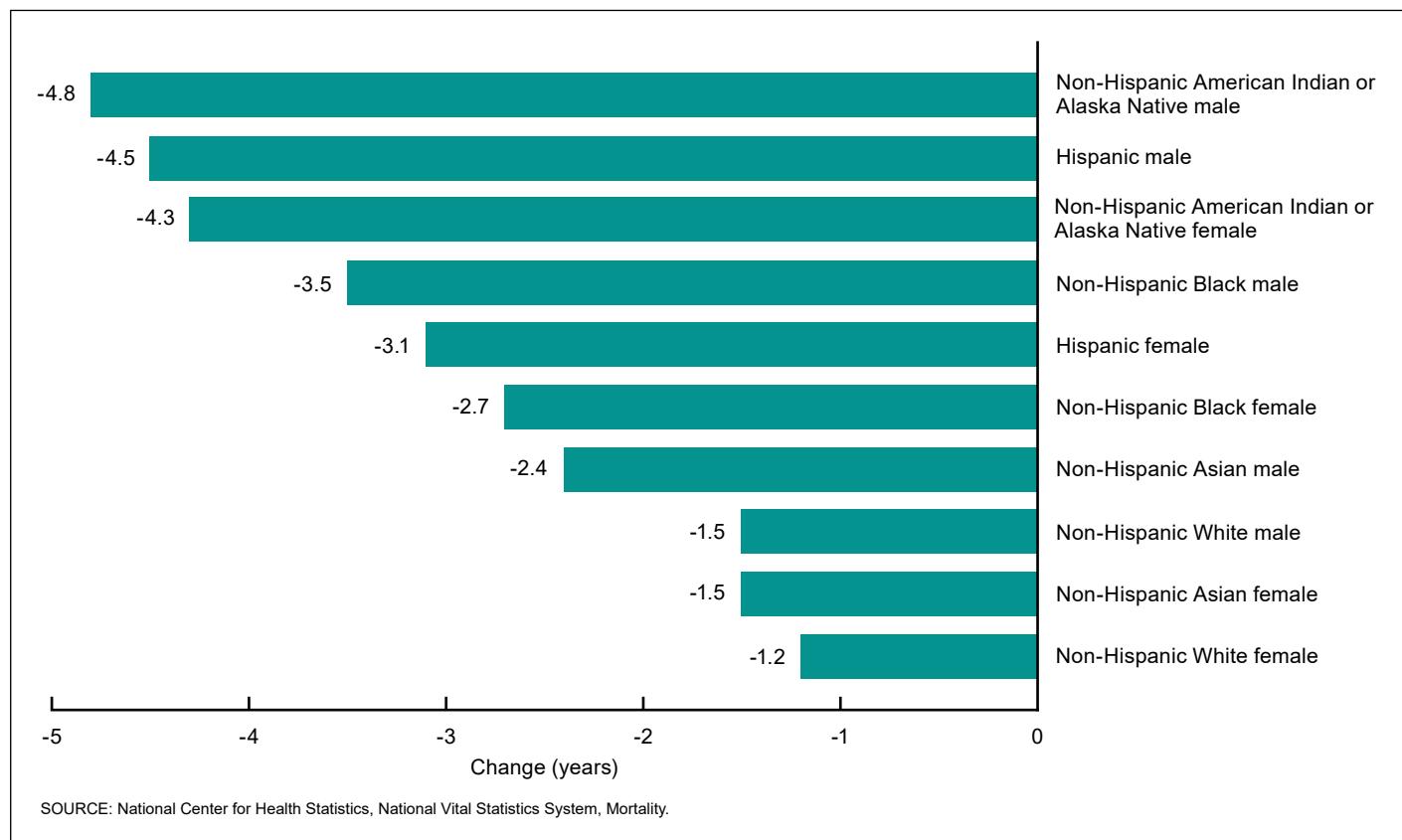
The decline was primarily due to increases in mortality due to COVID-19 (51.5%), unintentional injuries (11.7%), heart disease (9.2%), homicide (7.3%), and diabetes (3.8%). The decline in life expectancy would have been greater if not for the offsetting effects of decreases in mortality due to cancer (62.3%), Perinatal conditions (19.3%), Congenital abnormalities (7.1%), aortic aneurysm (4.1%), and viral hepatitis (2.9%).

The fourth-greatest decline in life expectancy was experienced by the non-Hispanic Asian population (2.0 years) (Figure 7). The decline was primarily due to increases in mortality due to COVID-19 (72.0%), heart disease (8.0%), diabetes (3.1%), stroke (2.2%), and unintentional injuries (1.6%). The decrease in life expectancy was offset by decreases in mortality due to cancer (33.8%), Perinatal conditions (28.1%), suicide (10.0%), pneumonitis (8.1%), and aortic aneurysm (5.9%).

The non-Hispanic White population experienced the smallest decline in life expectancy (1.4 years), primarily due to increases in mortality due to COVID-19 (56.7%), unintentional injuries (15.1%), heart disease (5.8%), Chronic liver disease and cirrhosis (3.2%), and diabetes (2.4%) (Figure 7). The negative effects of these causes were offset by decreases in mortality due to chronic lower respiratory diseases (34.0%), cancer (27.7%), suicide (21.3%), and Perinatal conditions (3.7%).

Survivorship in the United States

Table B summarizes the number of survivors out of 100,000 people born alive (l_x) by age, Hispanic origin, race, and sex for 2020. In 2020, 99.5% of all infants born in the United States survived the first year of life; 99.0% survived to age 20; 81.2% survived to age 65; 37.7% survived to age 85; and 1.1% survived to age 100.

Survivorship by Hispanic origin and race

In 2020, 99.7% of non-Hispanic Asian infants survived the first year of life, followed by 99.6% of non-Hispanic White infants, 99.5% of Hispanic infants, 99.2% of non-Hispanic AIAN infants, and 99.0% of non-Hispanic Black infants (Figure 8, Table B). The non-Hispanic Asian population had the highest survival probability at age 20 (99.4%), followed by the Hispanic and non-Hispanic White populations (99.1%), the non-Hispanic AIAN population (98.1%), and the non-Hispanic Black population (98.0%). By age 65, the non-Hispanic Asian population had the highest survival probability at 91.2%, followed by the Hispanic (82.7%), non-Hispanic White (81.9%), non-Hispanic Black (71.1%), and non-Hispanic AIAN (59.1%) populations. The survival advantage experienced by the non-Hispanic Asian population increased with age so that by age 85, 57.2% had survived, compared with 39.9% of the Hispanic, 38.5% of the non-Hispanic White, 25.3% of the non-Hispanic Black, and 20.4% of the non-Hispanic AIAN populations.

From 2019 to 2020, all Hispanic-origin and race–sex groups experienced declines in the probability of survival by age, mostly at ages 40 and over (Figure 9). As with life expectancy, disparities by Hispanic origin and race and sex were substantial. Decreases in survival to age 65 ranged from 16.7% for non-Hispanic AIAN

Figure 5. Percent contribution to change in life expectancy from 2019 to 2020, by cause of death and Hispanic origin and race: Total and non-Hispanic American Indian or Alaska Native populations

Total population

- COVID-19: -61.2
- Unintentional injuries: -11.7
- Heart disease: -5.8
- Homicide: -2.9
- Diabetes: -2.8
- Residual: -15.6
- Cancer: 43.1
- CLRD[1]: 24.9
- Perinatal conditions: 9.5
- Suicide: 8.1
- Congenital abnormalities: 3.5
- Residual: 10.8

Percent contribution

Non-Hispanic American Indian or Alaska Native

- COVID-19: -60.3
- Unintentional injuries: -9.6
- Chronic liver disease: -7.6
- Diabetes: -3.5
- Heart disease: -2.6
- Residual: -16.4
- CLRD[1]: 17.9
- Pneumonitis: 16.6
- Nephritis: 13.3
- Cancer: 12.7
- Perinatal conditions: 11.5
- Residual: 27.9

Percent contribution

[1]Chronic lower respiratory diseases.
SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

Figure 6. Percent contribution to change in life expectancy from 2019 to 2020, by cause of death and Hispanic origin and race: Hispanic and non-Hispanic Black populations

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.
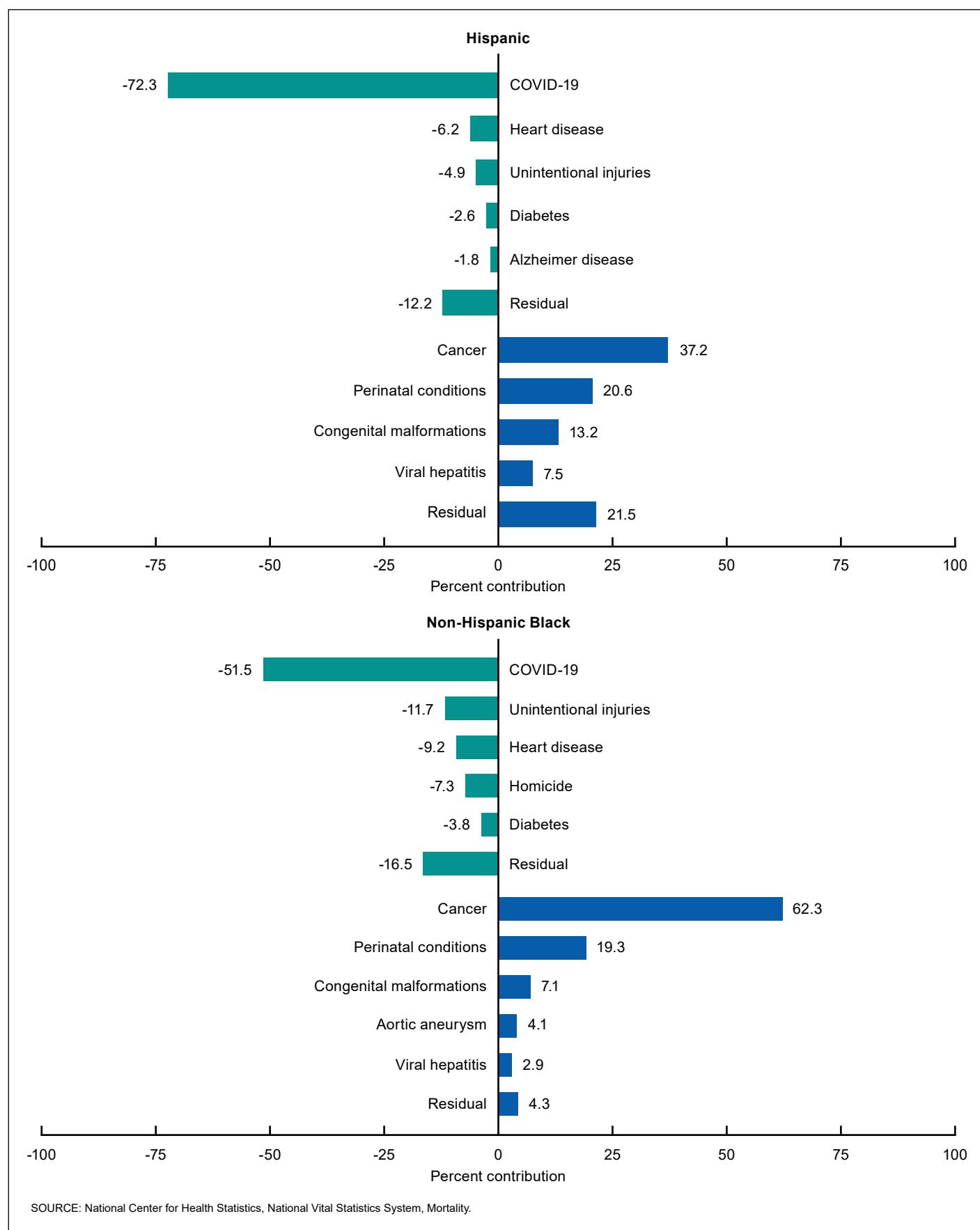
Figure 7. Percent contribution to change in life expectancy from 2019 to 2020, by cause of death and Hispanic origin and race: Non-Hispanic Asian and non-Hispanic White populations

Non-Hispanic Asian

Cause	Percent contribution
COVID-19	-72.0
Heart disease	-8.0
Diabetes	-3.1
Stroke	-2.2
Uninintentional injuries	-1.6
Residual	-13.0
Cancer	33.8
Perinatal conditions	28.1
Suicide	10.0
Pneumonitis	8.1
Aortic aneurysm	5.9
Residual	14.2

Percent contribution

Non-Hispanic White

Cause	Percent contribution
COVID-19	-56.7
Unintentional injuries	-15.1
Heart disease	-5.8
Chronic liver disease	-3.2
Diabetes	-2.4
Residual	-16.9
CLRD[1]	34.0
Cancer	27.7
Suicide	21.3
Perinatal conditions	3.7
Residual	13.2

Percent contribution

[1]Chronic lower respiratory diseases.
SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

Figure 8. Percentage surviving, by Hispanic origin and race, sex, and age: United States, 2020

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.
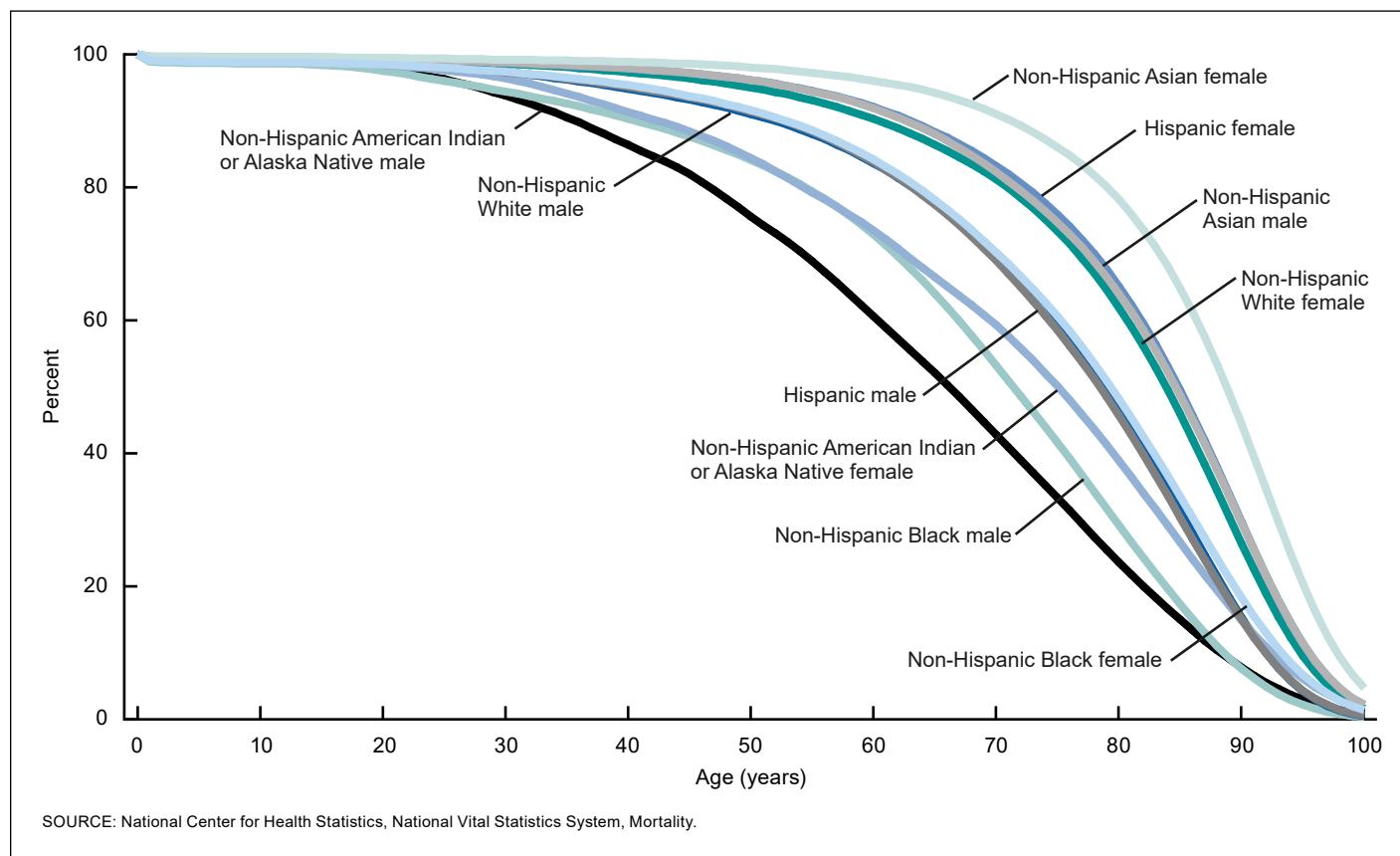
males to 1.4% for non-Hispanic White females. Survival to age 85 declined by 36.8% and 27.6% for non-Hispanic AIAN males and females, respectively; and by 32.1% and 17.5% for Hispanic males and females, respectively. By comparison, decreases in survival to age 85 were 12.8% and 7.6% for non-Hispanic White males and females, respectively.

Summary

At 77.0 years, U.S. life expectancy at birth for 2020 was the lowest it has been since 2002. Similarly, male life expectancy (74.2) and female life expectancy (79.9) declined to levels not seen since 2000 and 2003, respectively. From 2019 to 2020, the decline in life expectancy at birth based on the final 2020 life tables was 0.3 year greater than that based on provisional 2020 life tables for the total, male, and female populations (14). The differences are mostly due to differences in mortality estimates for ages 85 and over. Medicare data, which is used to supplement vital statistics mortality data in the construction of annual final U.S. life tables, was not available for the estimation of provisional life tables.

The non-Hispanic AIAN population experienced the greatest decline in life expectancy between 2019 and 2020, from 71.8 to 67.1 years. The Hispanic population experienced the second largest decline in life expectancy (from 81.9 to 77.9), and the decline was 0.9 year greater than that based on provisional 2020 data (14). In this case, differences were found not only for ages 85 and over, but for the youngest ages as well.

Age-specific mortality based on final mortality data for ages 1–4 and 5–9 was 2% higher than that based on provisional data. The non-Hispanic Black population experienced the third greatest decline in life expectancy (from 74.8 to 71.5), the lowest estimate seen since 1999 for the Black population (regardless of Hispanic origin). The decline was 0.3 year greater than that based on provisional 2020 data and, as with the total population, mostly a function of differences at ages 85 and over. The non-Hispanic Asian population experienced the next greatest decline in life expectancy (85.6 to 83.6), followed by the non-Hispanic White population, which experienced the smallest decline (78.8 to 77.4). For the non-Hispanic White population, the decline was 0.2 year greater based on final data than provisional data and, again, mostly a function of differences at ages 85 and over.

Disparities in life expectancy at birth by Hispanic origin and race increased in 2020. The non-Hispanic White advantage relative to the non-Hispanic Black population increased by 47.5% from 2019 (4.0) to 2020 (5.9). The life expectancy gap between the Black and White populations had been narrowing over the past several decades, declining from 7.1 years in 1993 to 4.0 years in 2019 (15). The last time the gap in life expectancy between the White and Black populations was this large was in 1999 (15). Similarly, the gap between the non-Hispanic AIAN population and the non-Hispanic White population increased 47.1% from 2019 (7.0) to 2020 (10.3).

The gap between the Hispanic and non-Hispanic White populations decreased by 83.4% from 2019 (3.1) to 2020 (0.5). The Hispanic population lost most of the mortality advantage it

Figure 9. Percent decline in survival probabilities from 2019 to 2020, by Hispanic origin and race and select ages
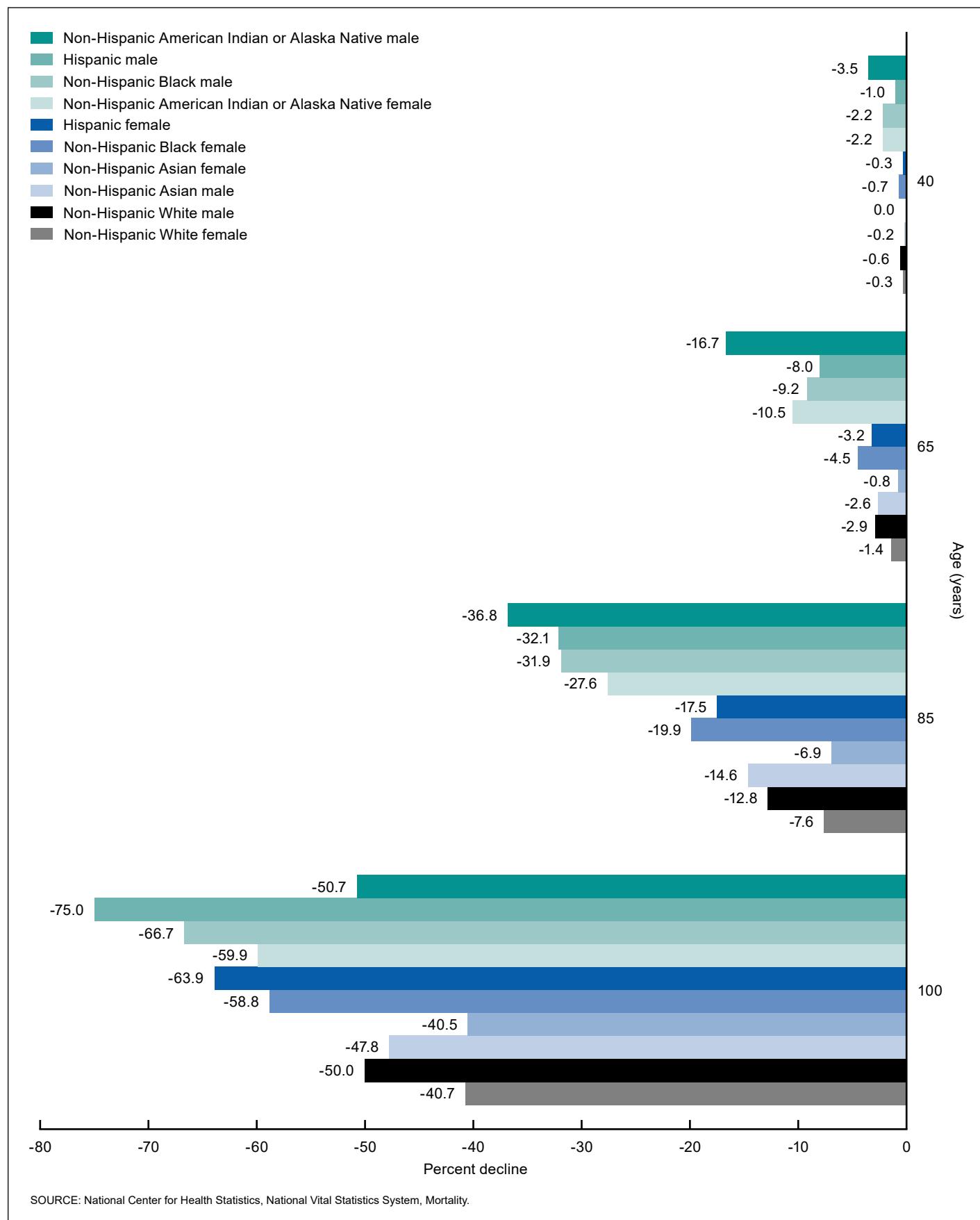
SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

had experienced relative to the non-Hispanic White population. The non-Hispanic Asian life expectancy advantage relative to the non-Hispanic White population declined by 8.8% from 2019 (6.8) to 2020 (6.2). In both cases, the narrowing of the gap was the result of larger increases in mortality in the two minority populations.

The decline in life expectancy at birth for the total population and all Hispanic-origin and race groups shown in this report was mainly due to increases in mortality due to COVID-19. Similarly, increases in racial and ethnic life expectancy disparities and the loss of advantages experienced by minority populations were a direct result of excess deaths in 2020, mostly from COVID-19.

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List of Detailed Tables

Table 1. Life table for the total population: United States, 2020

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table01.xlsx.

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
0–1.	0.005394	100,000	539	99,530	7,699,496	77.0
1–2.	0.000318	99,461	32	99,445	7,599,966	76.4
2–3.	0.000211	99,429	21	99,418	7,500,521	75.4
3–4.	0.000174	99,408	17	99,399	7,401,103	74.5
4–5.	0.000134	99,391	13	99,384	7,301,703	73.5
5–6.	0.000128	99,377	13	99,371	7,202,319	72.5
6–7.	0.000117	99,365	12	99,359	7,102,948	71.5
7–8.	0.000109	99,353	11	99,348	7,003,590	70.5
8–9.	0.000100	99,342	10	99,337	6,904,242	69.5
9–10.	0.000092	99,332	9	99,328	6,804,905	68.5
10–11.	0.000091	99,323	9	99,319	6,705,577	67.5
11–12.	0.000103	99,314	10	99,309	6,606,258	66.5
12–13.	0.000138	99,304	14	99,297	6,506,950	65.5
13–14.	0.000201	99,290	20	99,280	6,407,653	64.5
14–15.	0.000287	99,270	28	99,256	6,308,372	63.5
15–16.	0.000382	99,242	38	99,223	6,209,117	62.6
16–17.	0.000480	99,204	48	99,180	6,109,894	61.6
17–18.	0.000583	99,156	58	99,127	6,010,714	60.6
18–19.	0.000687	99,098	68	99,064	5,911,587	59.7
19–20.	0.000793	99,030	78	98,991	5,812,523	58.7
20–21.	0.000903	98,952	89	98,907	5,713,532	57.7
21–22.	0.001012	98,862	100	98,812	5,614,625	56.8
22–23.	0.001106	98,762	109	98,708	5,515,812	55.8
23–24.	0.001180	98,653	116	98,595	5,417,105	54.9
24–25.	0.001236	98,537	122	98,476	5,318,510	54.0
25–26.	0.001286	98,415	127	98,352	5,220,034	53.0
26–27.	0.001338	98,288	132	98,223	5,121,683	52.1
27–28.	0.001396	98,157	137	98,088	5,023,460	51.2
28–29.	0.001465	98,020	144	97,948	4,925,372	50.2
29–30.	0.001543	97,876	151	97,801	4,827,424	49.3
30–31.	0.001626	97,725	159	97,646	4,729,623	48.4
31–32.	0.001708	97,566	167	97,483	4,631,978	47.5
32–33.	0.001788	97,400	174	97,312	4,534,495	46.6
33–34.	0.001865	97,225	181	97,135	4,437,182	45.6
34–35.	0.001941	97,044	188	96,950	4,340,048	44.7
35–36.	0.002023	96,856	196	96,758	4,243,098	43.8
36–37.	0.002113	96,660	204	96,558	4,146,340	42.9
37–38.	0.002202	96,455	212	96,349	4,049,782	42.0
38–39.	0.002291	96,243	220	96,133	3,953,433	41.1
39–40.	0.002384	96,023	229	95,908	3,857,300	40.2
40–41.	0.002491	95,794	239	95,674	3,761,392	39.3
41–42.	0.002617	95,555	250	95,430	3,665,718	38.4
42–43.	0.002760	95,305	263	95,174	3,570,288	37.5
43–44.	0.002919	95,042	277	94,903	3,475,114	36.6
44–45.	0.003099	94,765	294	94,618	3,380,211	35.7
45–46.	0.003304	94,471	312	94,315	3,285,593	34.8
46–47.	0.003537	94,159	333	93,992	3,191,278	33.9
47–48.	0.003794	93,826	356	93,648	3,097,286	33.0
48–49.	0.004076	93,470	381	93,279	3,003,638	32.1
49–50.	0.004387	93,089	408	92,885	2,910,359	31.3
50–51.	0.004720	92,680	437	92,462	2,817,474	30.4
51–52.	0.005094	92,243	470	92,008	2,725,012	29.5
52–53.	0.005533	91,773	508	91,519	2,633,004	28.7
53–54.	0.006043	91,265	551	90,990	2,541,485	27.8
54–55.	0.006603	90,714	599	90,414	2,450,495	27.0
55–56.	0.007169	90,115	646	89,792	2,360,081	26.2
56–57.	0.007744	89,469	693	89,123	2,270,289	25.4
57–58.	0.008372	88,776	743	88,404	2,181,166	24.6
58–59.	0.009074	88,033	799	87,633	2,092,762	23.8
59–60.	0.009842	87,234	859	86,805	2,005,129	23.0

See footnote at end of table.

Table 1. Life table for the total population: United States, 2020—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table01.xlsx.

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
60–61.	0.010670	86,376	922	85,915	1,918,324	22.2
61–62.	0.011515	85,454	984	84,962	1,832,409	21.4
62–63.	0.012345	84,470	1,043	83,949	1,747,447	20.7
63–64.	0.013146	83,427	1,097	82,879	1,663,499	19.9
64–65.	0.013957	82,330	1,149	81,756	1,580,620	19.2
65–66.	0.014819	81,181	1,203	80,580	1,498,864	18.5
66–67.	0.015851	79,978	1,268	79,344	1,418,284	17.7
67–68.	0.016978	78,711	1,336	78,042	1,338,940	17.0
68–69.	0.018272	77,374	1,414	76,667	1,260,897	16.3
69–70.	0.019676	75,960	1,495	75,213	1,184,230	15.6
70–71.	0.021199	74,466	1,579	73,677	1,109,017	14.9
71–72.	0.022881	72,887	1,668	72,053	1,035,340	14.2
72–73.	0.024832	71,220	1,769	70,335	963,287	13.5
73–74.	0.026725	69,451	1,856	68,523	892,951	12.9
74–75.	0.030032	67,595	2,030	66,580	824,428	12.2
75–76.	0.032663	65,565	2,142	64,494	757,848	11.6
76–77.	0.036297	63,423	2,302	62,272	693,354	10.9
77–78.	0.039811	61,121	2,433	59,905	631,082	10.3
78–79.	0.044410	58,688	2,606	57,385	571,177	9.7
79–80.	0.048780	56,082	2,736	54,714	513,793	9.2
80–81.	0.053900	53,346	2,875	51,908	459,079	8.6
81–82.	0.059479	50,471	3,002	48,970	407,170	8.1
82–83.	0.065797	47,469	3,123	45,907	358,201	7.5
83–84.	0.073678	44,345	3,267	42,712	312,294	7.0
84–85.	0.082232	41,078	3,378	39,389	269,582	6.6
85–86.	0.091981	37,700	3,468	35,966	230,193	6.1
86–87.	0.100813	34,232	3,451	32,507	194,226	5.7
87–88.	0.113298	30,781	3,487	29,038	161,719	5.3
88–89.	0.126982	27,294	3,466	25,561	132,682	4.9
89–90.	0.141894	23,828	3,381	22,138	107,121	4.5
90–91.	0.158045	20,447	3,232	18,831	84,983	4.2
91–92.	0.175420	17,215	3,020	15,705	66,152	3.8
92–93.	0.193977	14,196	2,754	12,819	50,447	3.6
93–94.	0.213643	11,442	2,444	10,220	37,628	3.3
94–95.	0.234314	8,997	2,108	7,943	27,408	3.0
95–96.	0.255856	6,889	1,763	6,008	19,465	2.8
96–97.	0.278104	5,127	1,426	4,414	13,457	2.6
97–98.	0.300870	3,701	1,113	3,144	9,043	2.4
98–99.	0.323946	2,587	838	2,168	5,899	2.3
99–100.	0.347113	1,749	607	1,446	3,731	2.1
100 and over	1.000000	1,142	1,142	2,285	2,285	2.0

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

Table 2. Life table for males: United States, 2020

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table02.xlsx.

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
0–1.	0.005849	100,000	585	99,491	7,418,817	74.2
1–2.	0.000403	99,415	40	99,395	7,319,326	73.6
2–3.	0.000259	99,375	26	99,362	7,219,931	72.7
3–4.	0.000208	99,349	21	99,339	7,120,569	71.7
4–5.	0.000155	99,329	15	99,321	7,021,230	70.7
5–6.	0.000144	99,313	14	99,306	6,921,909	69.7
6–7.	0.000132	99,299	13	99,292	6,822,603	68.7
7–8.	0.000121	99,286	12	99,280	6,723,311	67.7
8–9.	0.000109	99,274	11	99,268	6,624,031	66.7
9–10.	0.000096	99,263	10	99,258	6,524,762	65.7
10–11.	0.000091	99,254	9	99,249	6,425,504	64.7
11–12.	0.000107	99,244	11	99,239	6,326,255	63.7
12–13.	0.000159	99,234	16	99,226	6,227,016	62.8
13–14.	0.000255	99,218	25	99,205	6,127,790	61.8
14–15.	0.000385	99,193	38	99,174	6,028,585	60.8
15–16.	0.000529	99,155	52	99,128	5,929,411	59.8
16–17.	0.000676	99,102	67	99,069	5,830,283	58.8
17–18.	0.000831	99,035	82	98,994	5,731,214	57.9
18–19.	0.000991	98,953	98	98,904	5,632,220	56.9
19–20.	0.001152	98,855	114	98,798	5,533,316	56.0
20–21.	0.001320	98,741	130	98,676	5,434,518	55.0
21–22.	0.001483	98,611	146	98,537	5,335,842	54.1
22–23.	0.001620	98,464	159	98,385	5,237,305	53.2
23–24.	0.001717	98,305	169	98,220	5,138,920	52.3
24–25.	0.001785	98,136	175	98,048	5,040,700	51.4
25–26.	0.001840	97,961	180	97,871	4,942,652	50.5
26–27.	0.001899	97,781	186	97,688	4,844,781	49.5
27–28.	0.001966	97,595	192	97,499	4,747,093	48.6
28–29.	0.002050	97,403	200	97,303	4,649,594	47.7
29–30.	0.002148	97,203	209	97,099	4,552,291	46.8
30–31.	0.002251	96,994	218	96,885	4,455,192	45.9
31–32.	0.002351	96,776	228	96,662	4,358,307	45.0
32–33.	0.002448	96,549	236	96,430	4,261,644	44.1
33–34.	0.002539	96,312	245	96,190	4,165,214	43.2
34–35.	0.002627	96,068	252	95,942	4,069,024	42.4
35–36.	0.002722	95,815	261	95,685	3,973,082	41.5
36–37.	0.002827	95,555	270	95,419	3,877,397	40.6
37–38.	0.002931	95,284	279	95,145	3,781,978	39.7
38–39.	0.003033	95,005	288	94,861	3,686,833	38.8
39–40.	0.003140	94,717	297	94,568	3,591,972	37.9
40–41.	0.003264	94,420	308	94,265	3,497,404	37.0
41–42.	0.003411	94,111	321	93,951	3,403,138	36.2
42–43.	0.003580	93,790	336	93,622	3,309,188	35.3
43–44.	0.003769	93,455	352	93,278	3,215,565	34.4
44–45.	0.003983	93,102	371	92,917	3,122,287	33.5
45–46.	0.004231	92,731	392	92,535	3,029,370	32.7
46–47.	0.004515	92,339	417	92,131	2,936,834	31.8
47–48.	0.004831	91,922	444	91,700	2,844,704	30.9
48–49.	0.005181	91,478	474	91,241	2,753,003	30.1
49–50.	0.005570	91,004	507	90,751	2,661,762	29.2
50–51.	0.005985	90,497	542	90,226	2,571,012	28.4
51–52.	0.006450	89,956	580	89,666	2,480,785	27.6
52–53.	0.007004	89,375	626	89,062	2,391,119	26.8
53–54.	0.007657	88,749	680	88,410	2,302,057	25.9
54–55.	0.008381	88,070	738	87,701	2,213,647	25.1
55–56.	0.009115	87,332	796	86,934	2,125,947	24.3
56–57.	0.009859	86,536	853	86,109	2,039,013	23.6
57–58.	0.010668	85,683	914	85,226	1,952,904	22.8
58–59.	0.011568	84,768	981	84,278	1,867,678	22.0
59–60.	0.012548	83,788	1,051	83,262	1,783,400	21.3

See footnote at end of table.

Table 2. Life table for males: United States, 2020—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table02.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
60–61	0.013599	82,736	1,125	82,174	1,700,138	20.5
61–62	0.014668	81,611	1,197	81,013	1,617,964	19.8
62–63	0.015723	80,414	1,264	79,782	1,536,951	19.1
63–64	0.016751	79,150	1,326	78,487	1,457,169	18.4
64–65	0.017793	77,824	1,385	77,132	1,378,682	17.7
65–66	0.018910	76,439	1,445	75,717	1,301,551	17.0
66–67	0.020241	74,994	1,518	74,235	1,225,834	16.3
67–68	0.021617	73,476	1,588	72,682	1,151,599	15.7
68–69	0.023122	71,888	1,662	71,057	1,078,917	15.0
69–70	0.024700	70,226	1,735	69,358	1,007,860	14.4
70–71	0.026327	68,491	1,803	67,589	938,502	13.7
71–72	0.028145	66,688	1,877	65,749	870,913	13.1
72–73	0.030318	64,811	1,965	63,828	805,163	12.4
73–74	0.032487	62,846	2,042	61,825	741,335	11.8
74–75	0.036455	60,804	2,217	59,696	679,510	11.2
75–76	0.039507	58,588	2,315	57,430	619,814	10.6
76–77	0.043893	56,273	2,470	55,038	562,384	10.0
77–78	0.048013	53,803	2,583	52,511	507,346	9.4
78–79	0.053409	51,220	2,736	49,852	454,835	8.9
79–80	0.058234	48,484	2,823	47,072	404,983	8.4
80–81	0.064014	45,661	2,923	44,199	357,910	7.8
81–82	0.070301	42,738	3,005	41,236	313,711	7.3
82–83	0.077280	39,733	3,071	38,198	272,475	6.9
83–84	0.086551	36,663	3,173	35,076	234,277	6.4
84–85	0.095951	33,490	3,213	31,883	199,201	5.9
85–86	0.107089	30,276	3,242	28,655	167,319	5.5
86–87	0.116675	27,034	3,154	25,457	138,663	5.1
87–88	0.130906	23,880	3,126	22,317	113,207	4.7
88–89	0.146410	20,754	3,039	19,234	90,890	4.4
89–90	0.163192	17,715	2,891	16,270	71,656	4.0
90–91	0.181227	14,824	2,687	13,481	55,386	3.7
91–92	0.200462	12,138	2,433	10,921	41,905	3.5
92–93	0.220810	9,705	2,143	8,633	30,984	3.2
93–94	0.242150	7,562	1,831	6,646	22,351	3.0
94–95	0.264330	5,731	1,515	4,973	15,705	2.7
95–96	0.287167	4,216	1,211	3,611	10,731	2.5
96–97	0.310455	3,005	933	2,539	7,121	2.4
97–98	0.333969	2,072	692	1,726	4,582	2.2
98–99	0.357477	1,380	493	1,133	2,856	2.1
99–100	0.380747	887	338	718	1,723	1.9
100 and over	1.000000	549	549	1,005	1,005	1.8

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

Table 3. Life table for females: United States, 2020

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table03.xlsx.

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
0–1.	0.004918	100,000	492	99,572	7,988,224	79.9
1–2.	0.000310	99,508	31	99,493	7,888,652	79.3
2–3.	0.000199	99,477	20	99,467	7,789,159	78.3
3–4.	0.000161	99,457	16	99,449	7,689,692	77.3
4–5.	0.000123	99,441	12	99,435	7,590,242	76.3
5–6.	0.000115	99,429	11	99,423	7,490,807	75.3
6–7.	0.000103	99,418	10	99,413	7,391,384	74.3
7–8.	0.000094	99,408	9	99,403	7,291,971	73.4
8–9.	0.000089	99,398	9	99,394	7,192,568	72.4
9–10.	0.000087	99,389	9	99,385	7,093,174	71.4
10–11.	0.000089	99,381	9	99,376	6,993,789	70.4
11–12.	0.000098	99,372	10	99,367	6,894,413	69.4
12–13.	0.000117	99,362	12	99,356	6,795,046	68.4
13–14.	0.000147	99,350	15	99,343	6,695,690	67.4
14–15.	0.000185	99,336	18	99,327	6,596,347	66.4
15–16.	0.000230	99,317	23	99,306	6,497,020	65.4
16–17.	0.000276	99,295	27	99,281	6,397,714	64.4
17–18.	0.000324	99,267	32	99,251	6,298,434	63.4
18–19.	0.000371	99,235	37	99,217	6,199,183	62.5
19–20.	0.000418	99,198	41	99,177	6,099,966	61.5
20–21.	0.000468	99,157	46	99,134	6,000,789	60.5
21–22.	0.000519	99,110	51	99,085	5,901,655	59.5
22–23.	0.000570	99,059	56	99,031	5,802,570	58.6
23–24.	0.000617	99,002	61	98,972	5,703,540	57.6
24–25.	0.000662	98,941	65	98,909	5,604,568	56.6
25–26.	0.000705	98,876	70	98,841	5,505,659	55.7
26–27.	0.000750	98,806	74	98,769	5,406,819	54.7
27–28.	0.000798	98,732	79	98,693	5,308,050	53.8
28–29.	0.000853	98,653	84	98,611	5,209,357	52.8
29–30.	0.000914	98,569	90	98,524	5,110,746	51.8
30–31.	0.000978	98,479	96	98,431	5,012,222	50.9
31–32.	0.001044	98,383	103	98,331	4,913,791	49.9
32–33.	0.001111	98,280	109	98,225	4,815,460	49.0
33–34.	0.001176	98,171	115	98,113	4,717,234	48.1
34–35.	0.001243	98,055	122	97,994	4,619,121	47.1
35–36.	0.001315	97,933	129	97,869	4,521,127	46.2
36–37.	0.001393	97,805	136	97,737	4,423,258	45.2
37–38.	0.001471	97,668	144	97,597	4,325,521	44.3
38–39.	0.001548	97,525	151	97,449	4,227,925	43.4
39–40.	0.001629	97,374	159	97,294	4,130,476	42.4
40–41.	0.001720	97,215	167	97,132	4,033,181	41.5
41–42.	0.001826	97,048	177	96,959	3,936,050	40.6
42–43.	0.001946	96,871	188	96,776	3,839,090	39.6
43–44.	0.002079	96,682	201	96,582	3,742,314	38.7
44–45.	0.002226	96,481	215	96,374	3,645,732	37.8
45–46.	0.002393	96,266	230	96,151	3,549,358	36.9
46–47.	0.002579	96,036	248	95,912	3,453,207	36.0
47–48.	0.002780	95,788	266	95,655	3,357,295	35.0
48–49.	0.002996	95,522	286	95,379	3,261,639	34.1
49–50.	0.003231	95,236	308	95,082	3,166,260	33.2
50–51.	0.003484	94,928	331	94,763	3,071,178	32.4
51–52.	0.003768	94,598	356	94,419	2,976,415	31.5
52–53.	0.004097	94,241	386	94,048	2,881,996	30.6
53–54.	0.004475	93,855	420	93,645	2,787,948	29.7
54–55.	0.004885	93,435	456	93,207	2,694,303	28.8
55–56.	0.005300	92,979	493	92,732	2,601,096	28.0
56–57.	0.005725	92,486	529	92,221	2,508,364	27.1
57–58.	0.006192	91,956	569	91,672	2,416,143	26.3
58–59.	0.006717	91,387	614	91,080	2,324,471	25.4
59–60.	0.007296	90,773	662	90,442	2,233,392	24.6

See footnote at end of table.

Table 3. Life table for females: United States, 2020—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table03.xlsx.

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
60–61.	0.007928	90,111	714	89,754	2,142,950	23.8
61–62.	0.008578	89,396	767	89,013	2,053,196	23.0
62–63.	0.009217	88,630	817	88,221	1,964,183	22.2
63–64.	0.009834	87,813	864	87,381	1,875,962	21.4
64–65.	0.010462	86,949	910	86,494	1,788,581	20.6
65–66.	0.011129	86,039	958	85,561	1,702,087	19.8
66–67.	0.011932	85,082	1,015	84,574	1,616,526	19.0
67–68.	0.012871	84,067	1,082	83,526	1,531,952	18.2
68–69.	0.014000	82,985	1,162	82,404	1,448,426	17.5
69–70.	0.015265	81,823	1,249	81,198	1,366,023	16.7
70–71.	0.016693	80,574	1,345	79,901	1,284,824	15.9
71–72.	0.018272	79,229	1,448	78,505	1,204,923	15.2
72–73.	0.020046	77,781	1,559	77,002	1,126,418	14.5
73–74.	0.021730	76,222	1,656	75,394	1,049,416	13.8
74–75.	0.024519	74,566	1,828	73,652	974,022	13.1
75–76.	0.026862	72,737	1,954	71,761	900,371	12.4
76–77.	0.029942	70,784	2,119	69,724	828,610	11.7
77–78.	0.033037	68,664	2,268	67,530	758,886	11.1
78–79.	0.037086	66,396	2,462	65,165	691,356	10.4
79–80.	0.041213	63,933	2,635	62,616	626,192	9.8
80–81.	0.045945	61,298	2,816	59,890	563,576	9.2
81–82.	0.051104	58,482	2,989	56,988	503,686	8.6
82–83.	0.057111	55,493	3,169	53,909	446,698	8.0
83–84.	0.064163	52,324	3,357	50,645	392,789	7.5
84–85.	0.072353	48,967	3,543	47,195	342,144	7.0
85–86.	0.081451	45,424	3,700	43,574	294,948	6.5
86–87.	0.090029	41,724	3,756	39,846	251,374	6.0
87–88.	0.101896	37,968	3,869	36,033	211,528	5.6
88–89.	0.115015	34,099	3,922	32,138	175,495	5.1
89–90.	0.129437	30,177	3,906	28,224	143,357	4.8
90–91.	0.145190	26,271	3,814	24,364	115,133	4.4
91–92.	0.162282	22,457	3,644	20,635	90,769	4.0
92–93.	0.180688	18,812	3,399	17,113	70,134	3.7
93–94.	0.200353	15,413	3,088	13,869	53,021	3.4
94–95.	0.221184	12,325	2,726	10,962	39,152	3.2
95–96.	0.243052	9,599	2,333	8,433	28,190	2.9
96–97.	0.265792	7,266	1,931	6,300	19,758	2.7
97–98.	0.289207	5,335	1,543	4,563	13,457	2.5
98–99.	0.313074	3,792	1,187	3,198	8,894	2.3
99–100.	0.337151	2,605	878	2,166	5,696	2.2
100 and over	1.000000	1,727	1,727	3,530	3,530	2.0

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

Table 4. Life table for the Hispanic population: United States, 2020

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table04.xlsx.

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
0–1.	0.004675	100,000	468	99,588	7,792,991	77.9
1–2.	0.000286	99,532	28	99,518	7,693,403	77.3
2–3.	0.000184	99,504	18	99,495	7,593,885	76.3
3–4.	0.000147	99,486	15	99,478	7,494,390	75.3
4–5.	0.000115	99,471	11	99,465	7,394,912	74.3
5–6.	0.000104	99,460	10	99,454	7,295,446	73.4
6–7.	0.000095	99,449	9	99,445	7,195,992	72.4
7–8.	0.000089	99,440	9	99,435	7,096,547	71.4
8–9.	0.000083	99,431	8	99,427	6,997,112	70.4
9–10.	0.000077	99,423	8	99,419	6,897,685	69.4
10–11.	0.000076	99,415	8	99,411	6,798,267	68.4
11–12.	0.000087	99,407	9	99,403	6,698,855	67.4
12–13.	0.000118	99,399	12	99,393	6,599,452	66.4
13–14.	0.000176	99,387	18	99,378	6,500,059	65.4
14–15.	0.000256	99,369	25	99,357	6,400,681	64.4
15–16.	0.000347	99,344	34	99,327	6,301,324	63.4
16–17.	0.000440	99,310	44	99,288	6,201,998	62.5
17–18.	0.000535	99,266	53	99,239	6,102,710	61.5
18–19.	0.000627	99,213	62	99,182	6,003,470	60.5
19–20.	0.000716	99,151	71	99,115	5,904,289	59.5
20–21.	0.000808	99,080	80	99,040	5,805,174	58.6
21–22.	0.000902	99,000	89	98,955	5,706,134	57.6
22–23.	0.000983	98,910	97	98,862	5,607,179	56.7
23–24.	0.001046	98,813	103	98,762	5,508,317	55.7
24–25.	0.001093	98,710	108	98,656	5,409,556	54.8
25–26.	0.001135	98,602	112	98,546	5,310,900	53.9
26–27.	0.001178	98,490	116	98,432	5,212,354	52.9
27–28.	0.001218	98,374	120	98,314	5,113,922	52.0
28–29.	0.001260	98,254	124	98,192	5,015,608	51.0
29–30.	0.001304	98,130	128	98,066	4,917,416	50.1
30–31.	0.001350	98,002	132	97,936	4,819,349	49.2
31–32.	0.001397	97,870	137	97,802	4,721,413	48.2
32–33.	0.001450	97,733	142	97,662	4,623,611	47.3
33–34.	0.001509	97,592	147	97,518	4,525,949	46.4
34–35.	0.001573	97,444	153	97,368	4,428,431	45.4
35–36.	0.001644	97,291	160	97,211	4,331,063	44.5
36–37.	0.001720	97,131	167	97,048	4,233,852	43.6
37–38.	0.001798	96,964	174	96,877	4,136,804	42.7
38–39.	0.001879	96,790	182	96,699	4,039,928	41.7
39–40.	0.001967	96,608	190	96,513	3,943,229	40.8
40–41.	0.002063	96,418	199	96,318	3,846,716	39.9
41–42.	0.002174	96,219	209	96,114	3,750,397	39.0
42–43.	0.002308	96,010	222	95,899	3,654,283	38.1
43–44.	0.002471	95,788	237	95,670	3,558,384	37.1
44–45.	0.002662	95,552	254	95,424	3,462,714	36.2
45–46.	0.002875	95,297	274	95,160	3,367,290	35.3
46–47.	0.003107	95,023	295	94,876	3,272,130	34.4
47–48.	0.003361	94,728	318	94,569	3,177,254	33.5
48–49.	0.003637	94,410	343	94,238	3,082,685	32.7
49–50.	0.003941	94,066	371	93,881	2,988,447	31.8
50–51.	0.004270	93,695	400	93,495	2,894,567	30.9
51–52.	0.004634	93,295	432	93,079	2,801,071	30.0
52–53.	0.005053	92,863	469	92,628	2,707,992	29.2
53–54.	0.005533	92,394	511	92,138	2,615,363	28.3
54–55.	0.006067	91,883	557	91,604	2,523,225	27.5
55–56.	0.006635	91,325	606	91,022	2,431,621	26.6
56–57.	0.007231	90,719	656	90,391	2,340,599	25.8
57–58.	0.007866	90,063	708	89,709	2,250,208	25.0
58–59.	0.008550	89,355	764	88,973	2,160,499	24.2
59–60.	0.009287	88,591	823	88,179	2,071,527	23.4

See footnotes at end of table.

Table 4. Life table for the Hispanic population: United States, 2020—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table04.xlsx.

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
60–61	0.010097	87,768	886	87,325	1,983,347	22.6
61–62	0.010961	86,882	952	86,406	1,896,022	21.8
62–63	0.011839	85,930	1,017	85,421	1,809,617	21.1
63–64	0.012709	84,912	1,079	84,373	1,724,196	20.3
64–65	0.013593	83,833	1,140	83,263	1,639,823	19.6
65–66	0.014537	82,693	1,202	82,092	1,556,560	18.8
66–67	0.015592	81,491	1,271	80,856	1,474,468	18.1
67–68	0.016761	80,221	1,345	79,548	1,393,611	17.4
68–69	0.018054	78,876	1,424	78,164	1,314,063	16.7
69–70	0.019461	77,452	1,507	76,699	1,235,899	16.0
70–71	0.020987	75,945	1,594	75,148	1,159,200	15.3
71–72	0.022631	74,351	1,683	73,510	1,084,052	14.6
72–73	0.024407	72,668	1,774	71,782	1,010,543	13.9
73–74	0.026360	70,895	1,869	69,960	938,761	13.2
74–75	0.028560	69,026	1,971	68,040	868,801	12.6
75–76	0.031041	67,055	2,081	66,014	800,760	11.9
76–77	0.033956	64,973	2,206	63,870	734,747	11.3
77–78	0.037294	62,767	2,341	61,596	670,877	10.7
78–79	0.041390	60,426	2,501	59,176	609,280	10.1
79–80	0.045690	57,925	2,647	56,602	550,105	9.5
80–81	0.050611	55,278	2,798	53,880	493,503	8.9
81–82	0.056232	52,481	2,951	51,005	439,623	8.4
82–83	0.062155	49,530	3,079	47,990	388,618	7.8
83–84	0.069609	46,451	3,233	44,834	340,628	7.3
84–85	0.077766	43,218	3,361	41,537	295,793	6.8
85–86	0.086744	39,857	3,457	38,128	254,256	6.4
86–87	0.094560	36,400	3,442	34,679	216,128	5.9
87–88	0.106292	32,958	3,503	31,206	181,449	5.5
88–89	0.119164	29,454	3,510	27,700	150,243	5.1
89–90	0.133208	25,945	3,456	24,217	122,543	4.7
90–91	0.148436	22,489	3,338	20,819	98,327	4.4
91–92	0.164840	19,150	3,157	17,572	77,507	4.0
92–93	0.182385	15,994	2,917	14,535	59,935	3.7
93–94	0.201006	13,077	2,628	11,762	45,400	3.5
94–95	0.220609	10,448	2,305	9,296	33,638	3.2
95–96	0.241069	8,143	1,963	7,162	24,342	3.0
96–97	0.262232	6,180	1,621	5,370	17,180	2.8
97–98	0.283921	4,560	1,295	3,912	11,811	2.6
98–99	0.305936	3,265	999	2,766	7,898	2.4
99–100	0.328066	2,266	743	1,894	5,133	2.3
100 and over	1.000000	1,523	1,523	3,238	3,238	2.1

NOTE: This life table is based on death rates that have been adjusted for race and Hispanic-origin misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

Table 5. Life table for Hispanic males: United States, 2020

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table05.xlsx.

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
0–1.	0.005066	100,000	507	99,555	7,458,967	74.6
1–2.	0.000306	99,493	30	99,478	7,359,413	74.0
2–3.	0.000198	99,463	20	99,453	7,259,935	73.0
3–4.	0.000178	99,443	18	99,434	7,160,482	72.0
4–5.	0.000108	99,426	11	99,420	7,061,047	71.0
5–6.	0.000112	99,415	11	99,409	6,961,627	70.0
6–7.	0.000103	99,404	10	99,399	6,862,218	69.0
7–8.	0.000096	99,393	10	99,389	6,762,819	68.0
8–9.	0.000084	99,384	8	99,380	6,663,431	67.0
9–10.	0.000070	99,376	7	99,372	6,564,051	66.1
10–11.	0.000063	99,369	6	99,365	6,464,679	65.1
11–12.	0.000073	99,362	7	99,359	6,365,314	64.1
12–13.	0.000117	99,355	12	99,349	6,265,955	63.1
13–14.	0.000203	99,343	20	99,333	6,166,606	62.1
14–15.	0.000323	99,323	32	99,307	6,067,272	61.1
15–16.	0.000461	99,291	46	99,268	5,967,965	60.1
16–17.	0.000603	99,245	60	99,215	5,868,697	59.1
17–18.	0.000748	99,186	74	99,148	5,769,481	58.2
18–19.	0.000891	99,111	88	99,067	5,670,333	57.2
19–20.	0.001030	99,023	102	98,972	5,571,266	56.3
20–21.	0.001174	98,921	116	98,863	5,472,294	55.3
21–22.	0.001319	98,805	130	98,740	5,373,431	54.4
22–23.	0.001447	98,675	143	98,603	5,274,691	53.5
23–24.	0.001548	98,532	153	98,456	5,176,088	52.5
24–25.	0.001628	98,379	160	98,299	5,077,632	51.6
25–26.	0.001700	98,219	167	98,136	4,979,333	50.7
26–27.	0.001770	98,052	174	97,965	4,881,197	49.8
27–28.	0.001826	97,879	179	97,789	4,783,232	48.9
28–29.	0.001869	97,700	183	97,609	4,685,443	48.0
29–30.	0.001905	97,517	186	97,424	4,587,834	47.0
30–31.	0.001935	97,332	188	97,237	4,490,410	46.1
31–32.	0.001971	97,143	192	97,047	4,393,172	45.2
32–33.	0.002027	96,952	197	96,853	4,296,125	44.3
33–34.	0.002112	96,755	204	96,653	4,199,271	43.4
34–35.	0.002218	96,551	214	96,444	4,102,618	42.5
35–36.	0.002337	96,337	225	96,224	4,006,175	41.6
36–37.	0.002458	96,111	236	95,993	3,909,951	40.7
37–38.	0.002578	95,875	247	95,752	3,813,957	39.8
38–39.	0.002695	95,628	258	95,499	3,718,206	38.9
39–40.	0.002814	95,370	268	95,236	3,622,707	38.0
40–41.	0.002945	95,102	280	94,962	3,527,471	37.1
41–42.	0.003095	94,822	293	94,675	3,432,509	36.2
42–43.	0.003264	94,528	309	94,374	3,337,833	35.3
43–44.	0.003457	94,220	326	94,057	3,243,459	34.4
44–45.	0.003675	93,894	345	93,722	3,149,402	33.5
45–46.	0.003919	93,549	367	93,366	3,055,681	32.7
46–47.	0.004193	93,183	391	92,987	2,962,315	31.8
47–48.	0.004503	92,792	418	92,583	2,869,328	30.9
48–49.	0.004853	92,374	448	92,150	2,776,745	30.1
49–50.	0.005246	91,926	482	91,685	2,684,595	29.2
50–51.	0.005664	91,444	518	91,185	2,592,910	28.4
51–52.	0.006127	90,926	557	90,647	2,501,726	27.5
52–53.	0.006678	90,368	603	90,067	2,411,079	26.7
53–54.	0.007341	89,765	659	89,436	2,321,012	25.9
54–55.	0.008098	89,106	722	88,745	2,231,577	25.0
55–56.	0.008924	88,384	789	87,990	2,142,831	24.2
56–57.	0.009782	87,596	857	87,167	2,054,841	23.5
57–58.	0.010657	86,739	924	86,277	1,967,674	22.7
58–59.	0.011535	85,814	990	85,320	1,881,397	21.9
59–60.	0.012438	84,825	1,055	84,297	1,796,078	21.2

See footnotes at end of table.

Table 5. Life table for Hispanic males: United States, 2020—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table05.xlsx.

Age (years)	Probability of dying between ages x and $x + 1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x + 1$ d_x	Person-years lived between ages x and $x + 1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
60–61.	0.013408	83,770	1,123	83,208	1,711,781	20.4
61–62.	0.014465	82,646	1,195	82,049	1,628,573	19.7
62–63.	0.015592	81,451	1,270	80,816	1,546,524	19.0
63–64.	0.016795	80,181	1,347	79,508	1,465,708	18.3
64–65.	0.018089	78,834	1,426	78,121	1,386,201	17.6
65–66.	0.019505	77,408	1,510	76,653	1,308,080	16.9
66–67.	0.021058	75,898	1,598	75,099	1,231,426	16.2
67–68.	0.022719	74,300	1,688	73,456	1,156,327	15.6
68–69.	0.024449	72,612	1,775	71,724	1,082,871	14.9
69–70.	0.026230	70,837	1,858	69,908	1,011,147	14.3
70–71.	0.028116	68,979	1,939	68,009	941,239	13.6
71–72.	0.030136	67,039	2,020	66,029	873,230	13.0
72–73.	0.032269	65,019	2,098	63,970	807,201	12.4
73–74.	0.034580	62,921	2,176	61,833	743,231	11.8
74–75.	0.037157	60,745	2,257	59,616	681,399	11.2
75–76.	0.040053	58,488	2,343	57,317	621,782	10.6
76–77.	0.043432	56,145	2,438	54,926	564,465	10.1
77–78.	0.047354	53,707	2,543	52,435	509,539	9.5
78–79.	0.052275	51,164	2,675	49,826	457,104	8.9
79–80.	0.057375	48,489	2,782	47,098	407,278	8.4
80–81.	0.063300	45,707	2,893	44,260	360,180	7.9
81–82.	0.070378	42,814	3,013	41,307	315,919	7.4
82–83.	0.077168	39,801	3,071	38,265	274,612	6.9
83–84.	0.086447	36,729	3,175	35,142	236,347	6.4
84–85.	0.095668	33,554	3,210	31,949	201,206	6.0
85–86.	0.106596	30,344	3,235	28,727	169,257	5.6
86–87.	0.114798	27,109	3,112	25,553	140,530	5.2
87–88.	0.128909	23,997	3,093	22,451	114,977	4.8
88–89.	0.144292	20,904	3,016	19,396	92,526	4.4
89–90.	0.160949	17,888	2,879	16,448	73,130	4.1
90–91.	0.178854	15,009	2,684	13,666	56,682	3.8
91–92.	0.197949	12,324	2,440	11,104	43,016	3.5
92–93.	0.218142	9,885	2,156	8,807	31,911	3.2
93–94.	0.239308	7,728	1,849	6,804	23,105	3.0
94–95.	0.261287	5,879	1,536	5,111	16,301	2.8
95–96.	0.283887	4,343	1,233	3,726	11,190	2.6
96–97.	0.306894	3,110	954	2,633	7,464	2.4
97–98.	0.330077	2,156	711	1,800	4,831	2.2
98–99.	0.353195	1,444	510	1,189	3,031	2.1
99–100.	0.376012	934	351	758	1,842	2.0
100 and over	1.000000	583	583	1,084	1,084	1.9

NOTE: This life table is based on death rates that have been adjusted for race and Hispanic-origin misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

Table 6. Life table for Hispanic females: United States, 2020

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table06.xlsx.

Age (years)	Probability of dying between ages x and x+1 q_x	Number surviving to age x l_x	Number dying between ages x and x+1 d_x	Person-years lived between ages x and x+1 L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
0–1	0.004269	100,000	427	99,623	8,133,985	81.3
1–2	0.000261	99,573	26	99,560	8,034,362	80.7
2–3	0.000166	99,547	17	99,539	7,934,802	79.7
3–4	0.000111	99,531	11	99,525	7,835,263	78.7
4–5	0.000120	99,520	12	99,514	7,735,738	77.7
5–6	0.000093	99,508	9	99,503	7,636,224	76.7
6–7	0.000086	99,498	9	99,494	7,536,722	75.7
7–8	0.000082	99,490	8	99,486	7,437,228	74.8
8–9	0.000081	99,482	8	99,478	7,337,742	73.8
9–10	0.000082	99,474	8	99,469	7,238,264	72.8
10–11	0.000087	99,465	9	99,461	7,138,795	71.8
11–12	0.000098	99,457	10	99,452	7,039,334	70.8
12–13	0.000117	99,447	12	99,441	6,939,882	69.8
13–14	0.000146	99,435	15	99,428	6,840,441	68.8
14–15	0.000184	99,421	18	99,412	6,741,012	67.8
15–16	0.000227	99,403	23	99,391	6,641,601	66.8
16–17	0.000272	99,380	27	99,367	6,542,209	65.8
17–18	0.000313	99,353	31	99,337	6,442,843	64.8
18–19	0.000350	99,322	35	99,305	6,343,505	63.9
19–20	0.000382	99,287	38	99,268	6,244,201	62.9
20–21	0.000415	99,249	41	99,229	6,144,933	61.9
21–22	0.000450	99,208	45	99,186	6,045,704	60.9
22–23	0.000480	99,163	48	99,140	5,946,518	60.0
23–24	0.000502	99,116	50	99,091	5,847,379	59.0
24–25	0.000520	99,066	51	99,040	5,748,288	58.0
25–26	0.000534	99,015	53	98,988	5,649,247	57.1
26–27	0.000550	98,962	54	98,935	5,550,259	56.1
27–28	0.000574	98,907	57	98,879	5,451,325	55.1
28–29	0.000609	98,851	60	98,820	5,352,446	54.1
29–30	0.000655	98,790	65	98,758	5,253,625	53.2
30–31	0.000708	98,726	70	98,691	5,154,867	52.2
31–32	0.000760	98,656	75	98,618	5,056,177	51.3
32–33	0.000807	98,581	80	98,541	4,957,558	50.3
33–34	0.000841	98,501	83	98,460	4,859,017	49.3
34–35	0.000867	98,418	85	98,376	4,760,557	48.4
35–36	0.000896	98,333	88	98,289	4,662,182	47.4
36–37	0.000933	98,245	92	98,199	4,563,893	46.5
37–38	0.000974	98,153	96	98,106	4,465,694	45.5
38–39	0.001024	98,058	100	98,008	4,367,588	44.5
39–40	0.001083	97,957	106	97,904	4,269,581	43.6
40–41	0.001146	97,851	112	97,795	4,171,676	42.6
41–42	0.001221	97,739	119	97,679	4,073,881	41.7
42–43	0.001322	97,620	129	97,555	3,976,201	40.7
43–44	0.001456	97,491	142	97,420	3,878,646	39.8
44–45	0.001618	97,349	157	97,270	3,781,227	38.8
45–46	0.001798	97,191	175	97,104	3,683,957	37.9
46–47	0.001988	97,016	193	96,920	3,586,853	37.0
47–48	0.002183	96,824	211	96,718	3,489,933	36.0
48–49	0.002382	96,612	230	96,497	3,393,215	35.1
49–50	0.002591	96,382	250	96,257	3,296,718	34.2
50–51	0.002821	96,132	271	95,997	3,200,461	33.3
51–52	0.003079	95,861	295	95,713	3,104,464	32.4
52–53	0.003362	95,566	321	95,405	3,008,751	31.5
53–54	0.003667	95,245	349	95,070	2,913,346	30.6
54–55	0.003993	94,895	379	94,706	2,818,276	29.7
55–56	0.004329	94,516	409	94,312	2,723,570	28.8
56–57	0.004692	94,107	442	93,887	2,629,258	27.9
57–58	0.005118	93,666	479	93,426	2,535,371	27.1
58–59	0.005634	93,186	525	92,924	2,441,945	26.2
59–60	0.006233	92,661	578	92,373	2,349,021	25.4

See footnotes at end of table.

Table 6. Life table for Hispanic females: United States, 2020—Con.

Spreadsheet version available from: *https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table06.xlsx.*

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
60–61.	0.006911	92,084	636	91,766	2,256,649	24.5
61–62.	0.007619	91,447	697	91,099	2,164,883	23.7
62–63.	0.008305	90,751	754	90,374	2,073,784	22.9
63–64.	0.008927	89,997	803	89,595	1,983,410	22.0
64–65.	0.009513	89,194	849	88,769	1,893,815	21.2
65–66.	0.010128	88,345	895	87,898	1,805,045	20.4
66–67.	0.010844	87,450	948	86,976	1,717,148	19.6
67–68.	0.011678	86,502	1,010	85,997	1,630,171	18.8
68–69.	0.012665	85,492	1,083	84,951	1,544,174	18.1
69–70.	0.013803	84,409	1,165	83,827	1,459,224	17.3
70–71.	0.015063	83,244	1,254	82,617	1,375,397	16.5
71–72.	0.016440	81,990	1,348	81,316	1,292,780	15.8
72–73.	0.017980	80,642	1,450	79,917	1,211,464	15.0
73–74.	0.019729	79,192	1,562	78,411	1,131,547	14.3
74–75.	0.021741	77,630	1,688	76,786	1,053,136	13.6
75–76.	0.024032	75,942	1,825	75,030	976,350	12.9
76–77.	0.026710	74,117	1,980	73,127	901,320	12.2
77–78.	0.029733	72,137	2,145	71,065	828,193	11.5
78–79.	0.033372	69,993	2,336	68,825	757,128	10.8
79–80.	0.037281	67,657	2,522	66,396	688,303	10.2
80–81.	0.041765	65,134	2,720	63,774	621,908	9.5
81–82.	0.046725	62,414	2,916	60,956	558,133	8.9
82–83.	0.052484	59,498	3,123	57,936	497,177	8.4
83–84.	0.059211	56,375	3,338	54,706	439,241	7.8
84–85.	0.067308	53,037	3,570	51,252	384,535	7.3
85–86.	0.075766	49,467	3,748	47,593	333,283	6.7
86–87.	0.083703	45,719	3,827	43,806	285,690	6.2
87–88.	0.095208	41,892	3,988	39,898	241,884	5.8
88–89.	0.107993	37,904	4,093	35,857	201,986	5.3
89–90.	0.122118	33,811	4,129	31,746	166,128	4.9
90–91.	0.137623	29,682	4,085	27,639	134,382	4.5
91–92.	0.154523	25,597	3,955	23,619	106,743	4.2
92–93.	0.172803	21,642	3,740	19,772	83,124	3.8
93–94.	0.192412	17,902	3,445	16,180	63,352	3.5
94–95.	0.213258	14,457	3,083	12,916	47,173	3.3
95–96.	0.235213	11,374	2,675	10,036	34,257	3.0
96–97.	0.258104	8,699	2,245	7,576	24,220	2.8
97–98.	0.281728	6,454	1,818	5,545	16,644	2.6
98–99.	0.305847	4,635	1,418	3,927	11,100	2.4
99–100.	0.330205	3,218	1,063	2,686	7,173	2.2
100 and over	1.000000	2,155	2,155	4,487	4,487	2.1

NOTE: This life table is based on death rates that have been adjusted for race and Hispanic-origin misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

Table 7. Life table for the non-Hispanic American Indian or Alaska Native population: United States, 2020

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table07.xlsx.

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
0–1.	0.007595	100,000	759	99,392	6,713,824	67.1
1–2.	0.000940	99,241	93	99,194	6,614,432	66.7
2–3.	0.000491	99,147	49	99,123	6,515,238	65.7
3–4.	0.000403	99,099	40	99,079	6,416,115	64.7
4–5.	0.000572	99,059	57	99,030	6,317,037	63.8
5–6.	0.000324	99,002	32	98,986	6,218,006	62.8
6–7.	0.000283	98,970	28	98,956	6,119,020	61.8
7–8.	0.000250	98,942	25	98,930	6,020,064	60.8
8–9.	0.000216	98,917	21	98,907	5,921,135	59.9
9–10.	0.000185	98,896	18	98,887	5,822,228	58.9
10–11.	0.000169	98,877	17	98,869	5,723,342	57.9
11–12.	0.000187	98,861	18	98,852	5,624,472	56.9
12–13.	0.000261	98,842	26	98,829	5,525,621	55.9
13–14.	0.000406	98,816	40	98,796	5,426,792	54.9
14–15.	0.000606	98,776	60	98,746	5,327,995	53.9
15–16.	0.000847	98,716	84	98,675	5,229,249	53.0
16–17.	0.001094	98,633	108	98,579	5,130,574	52.0
17–18.	0.001324	98,525	130	98,460	5,031,995	51.1
18–19.	0.001519	98,394	149	98,320	4,933,536	50.1
19–20.	0.001692	98,245	166	98,162	4,835,216	49.2
20–21.	0.001867	98,079	183	97,987	4,737,054	48.3
21–22.	0.002074	97,896	203	97,794	4,639,067	47.4
22–23.	0.002323	97,693	227	97,579	4,541,272	46.5
23–24.	0.002618	97,466	255	97,338	4,443,693	45.6
24–25.	0.002939	97,211	286	97,068	4,346,355	44.7
25–26.	0.003249	96,925	315	96,767	4,249,288	43.8
26–27.	0.003548	96,610	343	96,438	4,152,520	43.0
27–28.	0.003868	96,267	372	96,081	4,056,082	42.1
28–29.	0.004229	95,895	406	95,692	3,960,001	41.3
29–30.	0.004633	95,489	442	95,268	3,864,309	40.5
30–31.	0.005066	95,047	481	94,806	3,769,041	39.7
31–32.	0.005500	94,565	520	94,305	3,674,235	38.9
32–33.	0.005925	94,045	557	93,767	3,579,929	38.1
33–34.	0.006321	93,488	591	93,193	3,486,163	37.3
34–35.	0.006687	92,897	621	92,586	3,392,970	36.5
35–36.	0.007104	92,276	656	91,948	3,300,384	35.8
36–37.	0.007531	91,620	690	91,275	3,208,436	35.0
37–38.	0.007826	90,930	712	90,575	3,117,160	34.3
38–39.	0.007928	90,219	715	89,861	3,026,586	33.5
39–40.	0.007902	89,503	707	89,150	2,936,725	32.8
40–41.	0.007789	88,796	692	88,450	2,847,575	32.1
41–42.	0.007772	88,105	685	87,762	2,759,124	31.3
42–43.	0.008039	87,420	703	87,068	2,671,362	30.6
43–44.	0.008714	86,717	756	86,339	2,584,294	29.8
44–45.	0.009695	85,961	833	85,545	2,497,954	29.1
45–46.	0.010828	85,128	922	84,667	2,412,410	28.3
46–47.	0.011894	84,206	1,002	83,705	2,327,743	27.6
47–48.	0.012780	83,205	1,063	82,673	2,244,037	27.0
48–49.	0.013380	82,141	1,099	81,592	2,161,364	26.3
49–50.	0.013785	81,042	1,117	80,484	2,079,772	25.7
50–51.	0.014127	79,925	1,129	79,360	1,999,289	25.0
51–52.	0.014585	78,796	1,149	78,221	1,919,928	24.4
52–53.	0.015225	77,647	1,182	77,056	1,841,707	23.7
53–54.	0.016103	76,465	1,231	75,849	1,764,652	23.1
54–55.	0.017117	75,233	1,288	74,589	1,688,803	22.4
55–56.	0.018107	73,946	1,339	73,276	1,614,213	21.8
56–57.	0.019010	72,607	1,380	71,916	1,540,937	21.2
57–58.	0.019897	71,226	1,417	70,518	1,469,021	20.6
58–59.	0.020788	69,809	1,451	69,084	1,398,503	20.0
59–60.	0.021700	68,358	1,483	67,616	1,329,419	19.4

See footnotes at end of table.

Table 7. Life table for the non-Hispanic American Indian or Alaska Native population: United States, 2020—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table07.xlsx.

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
60–61.	0.022683	66,875	1,517	66,116	1,261,803	18.9
61–62.	0.023684	65,358	1,548	64,584	1,195,687	18.3
62–63.	0.024624	63,810	1,571	63,024	1,131,103	17.7
63–64.	0.025471	62,239	1,585	61,446	1,068,079	17.2
64–65.	0.026289	60,653	1,595	59,856	1,006,633	16.6
65–66.	0.027119	59,059	1,602	58,258	946,777	16.0
66–67.	0.028108	57,457	1,615	56,650	888,519	15.5
67–68.	0.029413	55,842	1,642	55,021	831,869	14.9
68–69.	0.031142	54,200	1,688	53,356	776,848	14.3
69–70.	0.033223	52,512	1,745	51,639	723,492	13.8
70–71.	0.035546	50,767	1,805	49,865	671,853	13.2
71–72.	0.037978	48,963	1,860	48,033	621,988	12.7
72–73.	0.040480	47,103	1,907	46,150	573,955	12.2
73–74.	0.043040	45,196	1,945	44,224	527,805	11.7
74–75.	0.045778	43,251	1,980	42,261	483,582	11.2
75–76.	0.048960	41,271	2,021	40,261	441,320	10.7
76–77.	0.052677	39,251	2,068	38,217	401,060	10.2
77–78.	0.056709	37,183	2,109	36,129	362,843	9.8
78–79.	0.060785	35,074	2,132	34,008	326,714	9.3
79–80.	0.064807	32,942	2,135	31,875	292,706	8.9
80–81.	0.068782	30,807	2,119	29,748	260,831	8.5
81–82.	0.073258	28,688	2,102	27,638	231,083	8.1
82–83.	0.078419	26,587	2,085	25,544	203,445	7.7
83–84.	0.084716	24,502	2,076	23,464	177,901	7.3
84–85.	0.091429	22,426	2,050	21,401	154,437	6.9
85–86.	0.098101	20,376	1,999	19,376	133,036	6.5
86–87.	0.104014	18,377	1,911	17,421	113,660	6.2
87–88.	0.112627	16,465	1,854	15,538	96,238	5.8
88–89.	0.121770	14,611	1,779	13,721	80,700	5.5
89–90.	0.131440	12,832	1,687	11,989	66,979	5.2
90–91.	0.141628	11,145	1,578	10,356	54,990	4.9
91–92.	0.152316	9,567	1,457	8,838	44,634	4.7
92–93.	0.163479	8,110	1,326	7,447	35,796	4.4
93–94.	0.175080	6,784	1,188	6,190	28,349	4.2
94–95.	0.187075	5,596	1,047	5,073	22,159	4.0
95–96.	0.199407	4,549	907	4,096	17,087	3.8
96–97.	0.212011	3,642	772	3,256	12,991	3.6
97–98.	0.224814	2,870	645	2,547	9,735	3.4
98–99.	0.237733	2,225	529	1,960	7,188	3.2
99–100.	0.250682	1,696	425	1,483	5,227	3.1
100 and over	1.000000	1,271	1,271	3,744	3,744	2.9

NOTE: This life table is based on death rates that have been adjusted for race and Hispanic-origin misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

Table 8. Life table for non-Hispanic American Indian or Alaska Native males: United States, 2020

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table08.xlsx.

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
0–1.	0.008318	100,000	832	99,369	6,381,405	63.8
1–2.	0.001267	99,168	126	99,105	6,282,036	63.3
2–3.	0.000305	99,043	30	99,028	6,182,931	62.4
3–4.	0.000369	99,012	36	98,994	6,083,903	61.4
4–5.	0.000790	98,976	78	98,937	5,984,909	60.5
5–6.	0.000286	98,898	28	98,884	5,885,972	59.5
6–7.	0.000239	98,870	24	98,858	5,787,089	58.5
7–8.	0.000208	98,846	21	98,836	5,688,231	57.5
8–9.	0.000186	98,825	18	98,816	5,589,395	56.6
9–10.	0.000175	98,807	17	98,798	5,490,579	55.6
10–11.	0.000186	98,790	18	98,781	5,391,781	54.6
11–12.	0.000237	98,771	23	98,760	5,293,000	53.6
12–13.	0.000348	98,748	34	98,731	5,194,241	52.6
13–14.	0.000532	98,714	53	98,687	5,095,510	51.6
14–15.	0.000775	98,661	76	98,623	4,996,823	50.6
15–16.	0.001062	98,585	105	98,532	4,898,200	49.7
16–17.	0.001364	98,480	134	98,413	4,799,668	48.7
17–18.	0.001659	98,346	163	98,264	4,701,255	47.8
18–19.	0.001929	98,182	189	98,088	4,602,991	46.9
19–20.	0.002189	97,993	214	97,886	4,504,903	46.0
20–21.	0.002444	97,779	239	97,659	4,407,018	45.1
21–22.	0.002733	97,540	267	97,406	4,309,359	44.2
22–23.	0.003087	97,273	300	97,123	4,211,952	43.3
23–24.	0.003509	96,973	340	96,803	4,114,829	42.4
24–25.	0.003961	96,632	383	96,441	4,018,027	41.6
25–26.	0.004408	96,250	424	96,038	3,921,586	40.7
26–27.	0.004820	95,825	462	95,594	3,825,548	39.9
27–28.	0.005194	95,364	495	95,116	3,729,954	39.1
28–29.	0.005537	94,868	525	94,605	3,634,838	38.3
29–30.	0.005872	94,343	554	94,066	3,540,232	37.5
30–31.	0.006208	93,789	582	93,498	3,446,167	36.7
31–32.	0.006564	93,207	612	92,901	3,352,669	36.0
32–33.	0.006970	92,595	645	92,272	3,259,768	35.2
33–34.	0.007440	91,949	684	91,607	3,167,496	34.4
34–35.	0.007955	91,265	726	90,902	3,075,889	33.7
35–36.	0.008567	90,539	776	90,151	2,984,987	33.0
36–37.	0.009184	89,764	824	89,351	2,894,835	32.2
37–38.	0.009622	88,939	856	88,511	2,805,484	31.5
38–39.	0.009779	88,083	861	87,653	2,716,972	30.8
39–40.	0.009744	87,222	850	86,797	2,629,320	30.1
40–41.	0.009580	86,372	827	85,958	2,542,523	29.4
41–42.	0.009548	85,545	817	85,136	2,456,564	28.7
42–43.	0.009915	84,728	840	84,308	2,371,428	28.0
43–44.	0.010859	83,888	911	83,432	2,287,120	27.3
44–45.	0.012227	82,977	1,015	82,470	2,203,688	26.6
45–46.	0.013843	81,962	1,135	81,395	2,121,218	25.9
46–47.	0.015339	80,828	1,240	80,208	2,039,823	25.2
47–48.	0.016449	79,588	1,309	78,933	1,959,616	24.6
48–49.	0.016969	78,279	1,328	77,615	1,880,682	24.0
49–50.	0.017092	76,950	1,315	76,293	1,803,068	23.4
50–51.	0.017025	75,635	1,288	74,991	1,726,775	22.8
51–52.	0.017185	74,348	1,278	73,709	1,651,784	22.2
52–53.	0.017858	73,070	1,305	72,417	1,578,075	21.6
53–54.	0.019225	71,765	1,380	71,075	1,505,657	21.0
54–55.	0.021011	70,385	1,479	69,646	1,434,582	20.4
55–56.	0.022884	68,906	1,577	68,118	1,364,936	19.8
56–57.	0.024508	67,330	1,650	66,505	1,296,818	19.3
57–58.	0.025804	65,679	1,695	64,832	1,230,314	18.7
58–59.	0.026681	63,985	1,707	63,131	1,165,482	18.2
59–60.	0.027290	62,277	1,700	61,428	1,102,351	17.7

See footnotes at end of table.

Table 8. Life table for non-Hispanic American Indian or Alaska Native males: United States, 2020—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table08.xlsx.

Age (years)	Probability of dying between ages x and $x + 1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x + 1$ d_x	Person-years lived between ages x and $x + 1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
60–61.	0.027826	60,578	1,686	59,735	1,040,923	17.2
61–62.	0.028510	58,892	1,679	58,053	981,188	16.7
62–63.	0.029435	57,213	1,684	56,371	923,135	16.1
63–64.	0.030745	55,529	1,707	54,676	866,764	15.6
64–65.	0.032409	53,822	1,744	52,950	812,088	15.1
65–66.	0.034296	52,078	1,786	51,185	759,138	14.6
66–67.	0.036280	50,292	1,825	49,379	707,954	14.1
67–68.	0.038344	48,467	1,858	47,538	658,574	13.6
68–69.	0.040355	46,609	1,881	45,668	611,036	13.1
69–70.	0.042297	44,728	1,892	43,782	565,368	12.6
70–71.	0.044284	42,836	1,897	41,887	521,586	12.2
71–72.	0.046433	40,939	1,901	39,989	479,699	11.7
72–73.	0.048757	39,038	1,903	38,086	439,711	11.3
73–74.	0.051414	37,135	1,909	36,180	401,624	10.8
74–75.	0.054513	35,225	1,920	34,265	365,444	10.4
75–76.	0.058224	33,305	1,939	32,336	331,179	9.9
76–77.	0.062414	31,366	1,958	30,387	298,843	9.5
77–78.	0.066718	29,408	1,962	28,427	268,456	9.1
78–79.	0.070588	27,446	1,937	26,478	240,029	8.7
79–80.	0.073927	25,509	1,886	24,566	213,551	8.4
80–81.	0.077024	23,623	1,820	22,713	188,985	8.0
81–82.	0.081019	21,804	1,766	20,920	166,272	7.6
82–83.	0.086001	20,037	1,723	19,175	145,351	7.3
83–84.	0.092821	18,314	1,700	17,464	126,176	6.9
84–85.	0.099862	16,614	1,659	15,784	108,712	6.5
85–86.	0.107224	14,955	1,604	14,153	92,927	6.2
86–87.	0.112514	13,351	1,502	12,600	78,774	5.9
87–88.	0.121355	11,849	1,438	11,130	66,174	5.6
88–89.	0.130682	10,411	1,361	9,731	55,044	5.3
89–90.	0.140483	9,051	1,271	8,415	45,313	5.0
90–91.	0.150736	7,779	1,173	7,193	36,898	4.7
91–92.	0.161415	6,607	1,066	6,073	29,705	4.5
92–93.	0.172480	5,540	956	5,062	23,632	4.3
93–94.	0.183884	4,585	843	4,163	18,570	4.1
94–95.	0.195572	3,742	732	3,376	14,407	3.9
95–96.	0.207477	3,010	624	2,698	11,031	3.7
96–97.	0.219524	2,385	524	2,124	8,333	3.5
97–98.	0.231634	1,862	431	1,646	6,210	3.3
98–99.	0.243721	1,430	349	1,256	4,564	3.2
99–100.	0.255697	1,082	277	944	3,308	3.1
100 and over	1.000000	805	805	2,364	2,364	2.9

NOTE: This life table is based on death rates that have been adjusted for race and Hispanic-origin misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

Table 9. Life table for non-Hispanic American Indian or Alaska Native females: United States, 2020

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table09.xlsx.

Age (years)	Probability of dying between ages x and $x + 1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x + 1$ d_x	Person-years lived between ages x and $x + 1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
0–1.	0.006840	100,000	684	99,414	7,070,874	70.7
1–2.	0.000614	99,316	61	99,286	6,971,461	70.2
2–3.	0.000666	99,255	66	99,222	6,872,175	69.2
3–4.	0.000432	99,189	43	99,167	6,772,953	68.3
4–5.	0.000352	99,146	35	99,129	6,673,786	67.3
5–6.	0.000358	99,111	35	99,093	6,574,657	66.3
6–7.	0.000325	99,076	32	99,060	6,475,564	65.4
7–8.	0.000289	99,044	29	99,029	6,376,504	64.4
8–9.	0.000244	99,015	24	99,003	6,277,475	63.4
9–10.	0.000193	98,991	19	98,981	6,178,472	62.4
10–11.	0.000149	98,972	15	98,964	6,079,491	61.4
11–12.	0.000135	98,957	13	98,950	5,980,527	60.4
12–13.	0.000174	98,944	17	98,935	5,881,577	59.4
13–14.	0.000282	98,926	28	98,912	5,782,642	58.5
14–15.	0.000443	98,898	44	98,876	5,683,729	57.5
15–16.	0.000638	98,855	63	98,823	5,584,853	56.5
16–17.	0.000831	98,792	82	98,750	5,486,030	55.5
17–18.	0.000998	98,709	98	98,660	5,387,279	54.6
18–19.	0.001115	98,611	110	98,556	5,288,619	53.6
19–20.	0.001201	98,501	118	98,442	5,190,063	52.7
20–21.	0.001294	98,383	127	98,319	5,091,621	51.8
21–22.	0.001417	98,255	139	98,186	4,993,302	50.8
22–23.	0.001557	98,116	153	98,040	4,895,117	49.9
23–24.	0.001718	97,963	168	97,879	4,797,077	49.0
24–25.	0.001896	97,795	185	97,702	4,699,197	48.1
25–26.	0.002056	97,610	201	97,509	4,601,495	47.1
26–27.	0.002231	97,409	217	97,300	4,503,986	46.2
27–28.	0.002487	97,192	242	97,071	4,406,685	45.3
28–29.	0.002861	96,950	277	96,811	4,309,614	44.5
29–30.	0.003331	96,673	322	96,512	4,212,803	43.6
30–31.	0.003856	96,351	372	96,165	4,116,291	42.7
31–32.	0.004363	95,979	419	95,770	4,020,126	41.9
32–33.	0.004809	95,560	460	95,331	3,924,357	41.1
33–34.	0.005142	95,101	489	94,856	3,829,026	40.3
34–35.	0.005379	94,612	509	94,357	3,734,170	39.5
35–36.	0.005628	94,103	530	93,838	3,639,813	38.7
36–37.	0.005896	93,573	552	93,297	3,545,974	37.9
37–38.	0.006071	93,022	565	92,739	3,452,677	37.1
38–39.	0.006126	92,457	566	92,174	3,359,938	36.3
39–40.	0.006104	91,890	561	91,610	3,267,764	35.6
40–41.	0.006033	91,330	551	91,054	3,176,154	34.8
41–42.	0.006025	90,779	547	90,505	3,085,100	34.0
42–43.	0.006191	90,232	559	89,952	2,994,595	33.2
43–44.	0.006609	89,673	593	89,377	2,904,643	32.4
44–45.	0.007224	89,080	643	88,759	2,815,266	31.6
45–46.	0.007903	88,437	699	88,087	2,726,508	30.8
46–47.	0.008570	87,738	752	87,362	2,638,420	30.1
47–48.	0.009258	86,986	805	86,583	2,551,058	29.3
48–49.	0.009945	86,181	857	85,752	2,464,475	28.6
49–50.	0.010628	85,324	907	84,870	2,378,723	27.9
50–51.	0.011365	84,417	959	83,937	2,293,853	27.2
51–52.	0.012111	83,457	1,011	82,952	2,209,916	26.5
52–53.	0.012735	82,447	1,050	81,922	2,126,964	25.8
53–54.	0.013179	81,397	1,073	80,860	2,045,042	25.1
54–55.	0.013506	80,324	1,085	79,781	1,964,182	24.5
55–56.	0.013718	79,239	1,087	78,695	1,884,401	23.8
56–57.	0.013997	78,152	1,094	77,605	1,805,705	23.1
57–58.	0.014545	77,058	1,121	76,498	1,728,100	22.4
58–59.	0.015478	75,937	1,175	75,350	1,651,602	21.7
59–60.	0.016688	74,762	1,248	74,138	1,576,253	21.1

See footnotes at end of table.

Table 9. Life table for non-Hispanic American Indian or Alaska Native females: United States, 2020—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table09.xlsx.

Age (years)	Probability of dying between ages x and $x + 1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x + 1$ d_x	Person-years lived between ages x and $x + 1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
60–61.	0.018083	73,514	1,329	72,850	1,502,115	20.4
61–62.	0.019378	72,185	1,399	71,485	1,429,265	19.8
62–63.	0.020359	70,786	1,441	70,066	1,357,780	19.2
63–64.	0.020864	69,345	1,447	68,622	1,287,714	18.6
64–65.	0.021034	67,898	1,428	67,184	1,219,093	18.0
65–66.	0.021061	66,470	1,400	65,770	1,151,909	17.3
66–67.	0.021301	65,070	1,386	64,377	1,086,139	16.7
67–68.	0.022018	63,684	1,402	62,983	1,021,762	16.0
68–69.	0.023489	62,282	1,463	61,550	958,779	15.4
69–70.	0.025603	60,819	1,557	60,040	897,228	14.8
70–71.	0.028094	59,262	1,665	58,429	837,188	14.1
71–72.	0.030662	57,597	1,766	56,714	778,759	13.5
72–73.	0.033258	55,831	1,857	54,902	722,045	12.9
73–74.	0.035759	53,974	1,930	53,009	667,143	12.4
74–75.	0.038294	52,044	1,993	51,047	614,134	11.8
75–76.	0.041186	50,051	2,061	49,020	563,086	11.3
76–77.	0.044671	47,989	2,144	46,918	514,066	10.7
77–78.	0.048638	45,846	2,230	44,731	467,149	10.2
78–79.	0.052988	43,616	2,311	42,460	422,418	9.7
79–80.	0.057609	41,305	2,380	40,115	379,958	9.2
80–81.	0.062303	38,925	2,425	37,713	339,843	8.7
81–82.	0.067233	36,500	2,454	35,273	302,130	8.3
82–83.	0.072719	34,046	2,476	32,808	266,857	7.8
83–84.	0.078871	31,570	2,490	30,325	234,049	7.4
84–85.	0.085776	29,080	2,494	27,833	203,723	7.0
85–86.	0.092444	26,586	2,458	25,357	175,890	6.6
86–87.	0.098979	24,128	2,388	22,934	150,533	6.2
87–88.	0.108135	21,740	2,351	20,565	127,599	5.9
88–89.	0.117940	19,389	2,287	18,246	107,034	5.5
89–90.	0.128401	17,102	2,196	16,004	88,789	5.2
90–91.	0.139515	14,906	2,080	13,867	72,784	4.9
91–92.	0.151268	12,827	1,940	11,857	58,918	4.6
92–93.	0.163637	10,886	1,781	9,996	47,061	4.3
93–94.	0.176583	9,105	1,608	8,301	37,065	4.1
94–95.	0.190057	7,497	1,425	6,785	28,764	3.8
95–96.	0.203993	6,072	1,239	5,453	21,979	3.6
96–97.	0.218316	4,834	1,055	4,306	16,526	3.4
97–98.	0.232935	3,778	880	3,338	12,220	3.2
98–99.	0.247748	2,898	718	2,539	8,882	3.1
99–100.	0.262646	2,180	573	1,894	6,343	2.9
100 and over	1.000000	1,608	1,608	4,449	4,449	2.8

NOTE: This life table is based on death rates that have been adjusted for race and Hispanic-origin misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

Table 10. Life table for the non-Hispanic Asian population: United States, 2020

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table10.xlsx.

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
0–1.	0.003114	100,000	311	99,720	8,364,470	83.6
1–2.	0.000202	99,689	20	99,679	8,264,750	82.9
2–3.	0.000147	99,668	15	99,661	8,165,072	81.9
3–4.	0.000090	99,654	9	99,649	8,065,410	80.9
4–5.	0.000071	99,645	7	99,641	7,965,761	79.9
5–6.	0.000074	99,638	7	99,634	7,866,120	78.9
6–7.	0.000068	99,630	7	99,627	7,766,486	78.0
7–8.	0.000063	99,624	6	99,621	7,666,858	77.0
8–9.	0.000058	99,617	6	99,615	7,567,238	76.0
9–10.	0.000054	99,612	5	99,609	7,467,623	75.0
10–11.	0.000052	99,606	5	99,604	7,368,014	74.0
11–12.	0.000058	99,601	6	99,598	7,268,411	73.0
12–13.	0.000078	99,595	8	99,591	7,168,812	72.0
13–14.	0.000116	99,588	12	99,582	7,069,221	71.0
14–15.	0.000165	99,576	16	99,568	6,969,639	70.0
15–16.	0.000217	99,560	22	99,549	6,870,072	69.0
16–17.	0.000267	99,538	27	99,525	6,770,523	68.0
17–18.	0.000319	99,511	32	99,496	6,670,998	67.0
18–19.	0.000374	99,480	37	99,461	6,571,503	66.1
19–20.	0.000427	99,442	42	99,421	6,472,041	65.1
20–21.	0.000483	99,400	48	99,376	6,372,620	64.1
21–22.	0.000532	99,352	53	99,325	6,273,244	63.1
22–23.	0.000559	99,299	55	99,271	6,173,919	62.2
23–24.	0.000556	99,244	55	99,216	6,074,647	61.2
24–25.	0.000535	99,188	53	99,162	5,975,431	60.2
25–26.	0.000511	99,135	51	99,110	5,876,270	59.3
26–27.	0.000494	99,085	49	99,060	5,777,160	58.3
27–28.	0.000486	99,036	48	99,012	5,678,099	57.3
28–29.	0.000491	98,988	49	98,963	5,579,088	56.4
29–30.	0.000506	98,939	50	98,914	5,480,124	55.4
30–31.	0.000522	98,889	52	98,863	5,381,210	54.4
31–32.	0.000538	98,837	53	98,811	5,282,347	53.4
32–33.	0.000557	98,784	55	98,757	5,183,537	52.5
33–34.	0.000578	98,729	57	98,701	5,084,780	51.5
34–35.	0.000603	98,672	60	98,642	4,986,079	50.5
35–36.	0.000634	98,613	63	98,581	4,887,437	49.6
36–37.	0.000671	98,550	66	98,517	4,788,856	48.6
37–38.	0.000707	98,484	70	98,449	4,690,339	47.6
38–39.	0.000744	98,414	73	98,378	4,591,889	46.7
39–40.	0.000783	98,341	77	98,303	4,493,512	45.7
40–41.	0.000828	98,264	81	98,223	4,395,209	44.7
41–42.	0.000886	98,183	87	98,139	4,296,986	43.8
42–43.	0.000963	98,096	94	98,049	4,198,846	42.8
43–44.	0.001062	98,001	104	97,949	4,100,798	41.8
44–45.	0.001176	97,897	115	97,840	4,002,848	40.9
45–46.	0.001298	97,782	127	97,719	3,905,009	39.9
46–47.	0.001425	97,655	139	97,586	3,807,290	39.0
47–48.	0.001563	97,516	152	97,440	3,709,704	38.0
48–49.	0.001719	97,364	167	97,280	3,612,265	37.1
49–50.	0.001896	97,196	184	97,104	3,514,985	36.2
50–51.	0.002103	97,012	204	96,910	3,417,881	35.2
51–52.	0.002329	96,808	225	96,695	3,320,971	34.3
52–53.	0.002555	96,582	247	96,459	3,224,276	33.4
53–54.	0.002764	96,336	266	96,203	3,127,817	32.5
54–55.	0.002965	96,069	285	95,927	3,031,614	31.6
55–56.	0.003174	95,785	304	95,633	2,935,687	30.6
56–57.	0.003418	95,481	326	95,317	2,840,055	29.7
57–58.	0.003712	95,154	353	94,978	2,744,737	28.8
58–59.	0.004070	94,801	386	94,608	2,649,760	28.0
59–60.	0.004487	94,415	424	94,203	2,555,152	27.1

See footnotes at end of table.

Table 10. Life table for the non-Hispanic Asian population: United States, 2020—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table10.xlsx.

Age (years)	Probability of dying between ages x and $x + 1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x + 1$ d_x	Person-years lived between ages x and $x + 1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
60–61.	0.004932	93,991	464	93,760	2,460,948	26.2
61–62.	0.005402	93,528	505	93,275	2,367,189	25.3
62–63.	0.005933	93,023	552	92,747	2,273,914	24.4
63–64.	0.006541	92,471	605	92,168	2,181,167	23.6
64–65.	0.007223	91,866	664	91,534	2,088,999	22.7
65–66.	0.007966	91,202	726	90,839	1,997,465	21.9
66–67.	0.008755	90,476	792	90,080	1,906,626	21.1
67–68.	0.009593	89,684	860	89,254	1,816,546	20.3
68–69.	0.010473	88,823	930	88,358	1,727,292	19.4
69–70.	0.011395	87,893	1,002	87,392	1,638,934	18.6
70–71.	0.012406	86,892	1,078	86,353	1,551,542	17.9
71–72.	0.013500	85,814	1,158	85,234	1,465,189	17.1
72–73.	0.014641	84,655	1,239	84,035	1,379,955	16.3
73–74.	0.015858	83,416	1,323	82,754	1,295,920	15.5
74–75.	0.017235	82,093	1,415	81,385	1,213,165	14.8
75–76.	0.018831	80,678	1,519	79,918	1,131,780	14.0
76–77.	0.020892	79,159	1,654	78,332	1,051,861	13.3
77–78.	0.023422	77,505	1,815	76,597	973,530	12.6
78–79.	0.026615	75,690	2,015	74,682	896,932	11.9
79–80.	0.029959	73,675	2,207	72,572	822,250	11.2
80–81.	0.033709	71,468	2,409	70,263	749,678	10.5
81–82.	0.037910	69,059	2,618	67,750	679,415	9.8
82–83.	0.042580	66,441	2,829	65,026	611,665	9.2
83–84.	0.048569	63,612	3,090	62,067	546,639	8.6
84–85.	0.055254	60,522	3,344	58,850	484,572	8.0
85–86.	0.062761	57,178	3,589	55,384	425,722	7.4
86–87.	0.069414	53,590	3,720	51,730	370,338	6.9
87–88.	0.079593	49,870	3,969	47,885	318,609	6.4
88–89.	0.091006	45,900	4,177	43,812	270,723	5.9
89–90.	0.103730	41,723	4,328	39,559	226,912	5.4
90–91.	0.117824	37,395	4,406	35,192	187,353	5.0
91–92.	0.133324	32,989	4,398	30,790	152,160	4.6
92–93.	0.150239	28,591	4,295	26,443	121,370	4.2
93–94.	0.168543	24,295	4,095	22,248	94,927	3.9
94–95.	0.188174	20,201	3,801	18,300	72,679	3.6
95–96.	0.209024	16,399	3,428	14,685	54,379	3.3
96–97.	0.230948	12,972	2,996	11,474	39,694	3.1
97–98.	0.253758	9,976	2,531	8,710	28,220	2.8
98–99.	0.277231	7,444	2,064	6,412	19,510	2.6
99–100.	0.301119	5,381	1,620	4,570	13,097	2.4
100 and over	1.000000	3,760	3,760	8,527	8,527	2.3

NOTE: This life table is based on death rates that have been adjusted for race and Hispanic-origin misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

Table 11. Life table for non-Hispanic Asian males: United States, 2020

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table11.xlsx.

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
0–1.	0.003286	100,000	329	99,705	8,113,838	81.1
1–2.	0.000228	99,671	23	99,660	8,014,133	80.4
2–3.	0.000116	99,649	12	99,643	7,914,473	79.4
3–4.	0.000096	99,637	10	99,632	7,814,830	78.4
4–5.	0.000068	99,628	7	99,624	7,715,197	77.4
5–6.	0.000064	99,621	6	99,618	7,615,573	76.4
6–7.	0.000057	99,614	6	99,612	7,515,955	75.5
7–8.	0.000053	99,609	5	99,606	7,416,344	74.5
8–9.	0.000052	99,603	5	99,601	7,316,738	73.5
9–10.	0.000055	99,598	6	99,595	7,217,137	72.5
10–11.	0.000063	99,593	6	99,590	7,117,541	71.5
11–12.	0.000078	99,586	8	99,583	7,017,952	70.5
12–13.	0.000100	99,579	10	99,574	6,918,369	69.5
13–14.	0.000131	99,569	13	99,562	6,818,795	68.5
14–15.	0.000169	99,556	17	99,547	6,719,233	67.5
15–16.	0.000209	99,539	21	99,528	6,619,686	66.5
16–17.	0.000252	99,518	25	99,506	6,520,157	65.5
17–18.	0.000305	99,493	30	99,478	6,420,652	64.5
18–19.	0.000370	99,463	37	99,444	6,321,174	63.6
19–20.	0.000441	99,426	44	99,404	6,221,730	62.6
20–21.	0.000514	99,382	51	99,357	6,122,326	61.6
21–22.	0.000580	99,331	58	99,302	6,022,969	60.6
22–23.	0.000626	99,273	62	99,242	5,923,667	59.7
23–24.	0.000647	99,211	64	99,179	5,824,425	58.7
24–25.	0.000651	99,147	65	99,115	5,725,246	57.7
25–26.	0.000652	99,082	65	99,050	5,626,131	56.8
26–27.	0.000656	99,018	65	98,985	5,527,081	55.8
27–28.	0.000661	98,953	65	98,920	5,428,095	54.9
28–29.	0.000669	98,887	66	98,854	5,329,175	53.9
29–30.	0.000679	98,821	67	98,788	5,230,321	52.9
30–31.	0.000688	98,754	68	98,720	5,131,533	52.0
31–32.	0.000701	98,686	69	98,652	5,032,813	51.0
32–33.	0.000727	98,617	72	98,581	4,934,161	50.0
33–34.	0.000771	98,546	76	98,508	4,835,580	49.1
34–35.	0.000831	98,470	82	98,429	4,737,072	48.1
35–36.	0.000903	98,388	89	98,343	4,638,644	47.1
36–37.	0.000978	98,299	96	98,251	4,540,300	46.2
37–38.	0.001045	98,203	103	98,151	4,442,049	45.2
38–39.	0.001096	98,100	108	98,046	4,343,898	44.3
39–40.	0.001140	97,993	112	97,937	4,245,852	43.3
40–41.	0.001188	97,881	116	97,823	4,147,915	42.4
41–42.	0.001257	97,765	123	97,703	4,050,092	41.4
42–43.	0.001356	97,642	132	97,575	3,952,389	40.5
43–44.	0.001491	97,509	145	97,436	3,854,814	39.5
44–45.	0.001652	97,364	161	97,283	3,757,377	38.6
45–46.	0.001822	97,203	177	97,114	3,660,094	37.7
46–47.	0.001997	97,026	194	96,929	3,562,979	36.7
47–48.	0.002187	96,832	212	96,726	3,466,050	35.8
48–49.	0.002401	96,620	232	96,504	3,369,324	34.9
49–50.	0.002645	96,388	255	96,261	3,272,820	34.0
50–51.	0.002930	96,133	282	95,992	3,176,559	33.0
51–52.	0.003245	95,852	311	95,696	3,080,567	32.1
52–53.	0.003567	95,541	341	95,370	2,984,871	31.2
53–54.	0.003877	95,200	369	95,015	2,889,500	30.4
54–55.	0.004183	94,831	397	94,632	2,794,485	29.5
55–56.	0.004494	94,434	424	94,222	2,699,853	28.6
56–57.	0.004853	94,010	456	93,781	2,605,631	27.7
57–58.	0.005297	93,553	496	93,306	2,511,850	26.8
58–59.	0.005856	93,058	545	92,785	2,418,544	26.0
59–60.	0.006511	92,513	602	92,212	2,325,759	25.1

See footnotes at end of table.

Table 11. Life table for non-Hispanic Asian males: United States, 2020—Con.

Spreadsheet version available from: *https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table11.xlsx.*

Age (years)	Probability of dying between ages x and $x + 1$	Number surviving to age x	Number dying between ages x and $x + 1$	Person-years lived between ages x and $x + 1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
60–61.	0.007220	91,910	664	91,579	2,233,547	24.3
61–62.	0.007947	91,247	725	90,884	2,141,969	23.5
62–63.	0.008706	90,522	788	90,128	2,051,084	22.7
63–64.	0.009494	89,734	852	89,308	1,960,957	21.9
64–65.	0.010325	88,882	918	88,423	1,871,649	21.1
65–66.	0.011220	87,964	987	87,471	1,783,226	20.3
66–67.	0.012183	86,977	1,060	86,447	1,695,755	19.5
67–68.	0.013193	85,917	1,134	85,351	1,609,308	18.7
68–69.	0.014232	84,784	1,207	84,181	1,523,957	18.0
69–70.	0.015302	83,577	1,279	82,938	1,439,777	17.2
70–71.	0.016440	82,298	1,353	81,622	1,356,839	16.5
71–72.	0.017667	80,945	1,430	80,230	1,275,217	15.8
72–73.	0.018989	79,515	1,510	78,760	1,194,987	15.0
73–74.	0.020472	78,005	1,597	77,207	1,116,227	14.3
74–75.	0.022205	76,408	1,697	75,560	1,039,020	13.6
75–76.	0.024200	74,712	1,808	73,808	963,459	12.9
76–77.	0.026709	72,904	1,947	71,930	889,652	12.2
77–78.	0.029738	70,957	2,110	69,902	817,721	11.5
78–79.	0.033549	68,847	2,310	67,692	747,820	10.9
79–80.	0.037427	66,537	2,490	65,292	680,128	10.2
80–81.	0.041766	64,046	2,675	62,709	614,837	9.6
81–82.	0.046746	61,372	2,869	59,937	552,128	9.0
82–83.	0.051899	58,503	3,036	56,985	492,191	8.4
83–84.	0.059055	55,466	3,276	53,829	435,206	7.8
84–85.	0.066292	52,191	3,460	50,461	381,377	7.3
85–86.	0.075019	48,731	3,656	46,903	330,916	6.8
86–87.	0.081673	45,075	3,681	43,235	284,013	6.3
87–88.	0.093313	41,394	3,863	39,463	240,779	5.8
88–89.	0.106267	37,531	3,988	35,537	201,316	5.4
89–90.	0.120587	33,543	4,045	31,521	165,779	4.9
90–91.	0.136300	29,498	4,021	27,488	134,259	4.6
91–92.	0.153403	25,478	3,908	23,523	106,771	4.2
92–93.	0.171859	21,569	3,707	19,716	83,247	3.9
93–94.	0.191586	17,862	3,422	16,151	63,532	3.6
94–95.	0.212465	14,440	3,068	12,906	47,380	3.3
95–96.	0.234331	11,372	2,665	10,040	34,474	3.0
96–97.	0.256983	8,707	2,238	7,588	24,435	2.8
97–98.	0.280186	6,470	1,813	5,563	16,846	2.6
98–99.	0.303681	4,657	1,414	3,950	11,283	2.4
99–100.	0.327201	3,243	1,061	2,712	7,333	2.3
100 and over	1.000000	2,182	2,182	4,621	4,621	2.1

NOTE: This life table is based on death rates that have been adjusted for race and Hispanic-origin misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

Table 12. Life table for non-Hispanic Asian females: United States, 2020

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
0–1.	0.002923	100,000	292	99,737	8,593,629	85.9
1–2.	0.000174	99,708	17	99,699	8,493,892	85.2
2–3.	0.000180	99,690	18	99,681	8,394,193	84.2
3–4.	0.000084	99,672	8	99,668	8,294,512	83.2
4–5.	0.000073	99,664	7	99,660	8,194,843	82.2
5–6.	0.000082	99,657	8	99,653	8,095,183	81.2
6–7.	0.000076	99,649	8	99,645	7,995,530	80.2
7–8.	0.000071	99,641	7	99,638	7,895,885	79.2
8–9.	0.000065	99,634	6	99,631	7,796,248	78.2
9–10.	0.000059	99,628	6	99,625	7,696,617	77.3
10–11.	0.000055	99,622	6	99,619	7,596,992	76.3
11–12.	0.000057	99,616	6	99,613	7,497,373	75.3
12–13.	0.000068	99,610	7	99,607	7,397,760	74.3
13–14.	0.000092	99,604	9	99,599	7,298,153	73.3
14–15.	0.000123	99,595	12	99,588	7,198,554	72.3
15–16.	0.000158	99,582	16	99,574	7,098,966	71.3
16–17.	0.000190	99,567	19	99,557	6,999,391	70.3
17–18.	0.000215	99,548	21	99,537	6,899,834	69.3
18–19.	0.000231	99,526	23	99,515	6,800,297	68.3
19–20.	0.000241	99,503	24	99,491	6,700,782	67.3
20–21.	0.000251	99,479	25	99,467	6,601,291	66.4
21–22.	0.000261	99,454	26	99,441	6,501,824	65.4
22–23.	0.000265	99,428	26	99,415	6,402,383	64.4
23–24.	0.000264	99,402	26	99,389	6,302,968	63.4
24–25.	0.000260	99,376	26	99,363	6,203,579	62.4
25–26.	0.000256	99,350	25	99,337	6,104,216	61.4
26–27.	0.000254	99,324	25	99,312	6,004,879	60.5
27–28.	0.000254	99,299	25	99,287	5,905,567	59.5
28–29.	0.000259	99,274	26	99,261	5,806,281	58.5
29–30.	0.000267	99,248	27	99,235	5,707,020	57.5
30–31.	0.000277	99,222	27	99,208	5,607,785	56.5
31–32.	0.000287	99,194	29	99,180	5,508,577	55.5
32–33.	0.000301	99,166	30	99,151	5,409,397	54.5
33–34.	0.000317	99,136	31	99,120	5,310,246	53.6
34–35.	0.000336	99,105	33	99,088	5,211,125	52.6
35–36.	0.000360	99,071	36	99,053	5,112,038	51.6
36–37.	0.000387	99,036	38	99,016	5,012,984	50.6
37–38.	0.000415	98,997	41	98,977	4,913,968	49.6
38–39.	0.000445	98,956	44	98,934	4,814,991	48.7
39–40.	0.000478	98,912	47	98,889	4,716,057	47.7
40–41.	0.000516	98,865	51	98,839	4,617,168	46.7
41–42.	0.000561	98,814	55	98,786	4,518,329	45.7
42–43.	0.000619	98,758	61	98,728	4,419,543	44.8
43–44.	0.000688	98,697	68	98,663	4,320,815	43.8
44–45.	0.000766	98,629	76	98,592	4,222,152	42.8
45–46.	0.000849	98,554	84	98,512	4,123,560	41.8
46–47.	0.000936	98,470	92	98,424	4,025,048	40.9
47–48.	0.001030	98,378	101	98,327	3,926,624	39.9
48–49.	0.001136	98,277	112	98,221	3,828,296	39.0
49–50.	0.001256	98,165	123	98,103	3,730,075	38.0
50–51.	0.001396	98,042	137	97,973	3,631,972	37.0
51–52.	0.001547	97,905	151	97,829	3,533,998	36.1
52–53.	0.001693	97,754	166	97,671	3,436,169	35.2
53–54.	0.001824	97,588	178	97,499	3,338,498	34.2
54–55.	0.001944	97,410	189	97,315	3,240,999	33.3
55–56.	0.002076	97,221	202	97,120	3,143,684	32.3
56–57.	0.002233	97,019	217	96,910	3,046,564	31.4
57–58.	0.002412	96,802	234	96,685	2,949,654	30.5
58–59.	0.002619	96,569	253	96,442	2,852,968	29.5
59–60.	0.002856	96,316	275	96,178	2,756,526	28.6

See footnotes at end of table.

Table 12. Life table for non-Hispanic Asian females: United States, 2020—Con.

Spreadsheet version available from: *https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table12.xlsx*.

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
60–61.	0.003105	96,041	298	95,892	2,660,348	27.7
61–62.	0.003388	95,742	324	95,580	2,564,456	26.8
62–63.	0.003750	95,418	358	95,239	2,468,876	25.9
63–64.	0.004220	95,060	401	94,860	2,373,637	25.0
64–65.	0.004785	94,659	453	94,433	2,278,777	24.1
65–66.	0.005406	94,206	509	93,952	2,184,345	23.2
66–67.	0.006059	93,697	568	93,413	2,090,393	22.3
67–68.	0.006768	93,129	630	92,814	1,996,980	21.4
68–69.	0.007528	92,499	696	92,151	1,904,166	20.6
69–70.	0.008340	91,803	766	91,420	1,812,015	19.7
70–71.	0.009256	91,037	843	90,616	1,720,595	18.9
71–72.	0.010249	90,194	924	89,732	1,629,980	18.1
72–73.	0.011249	89,270	1,004	88,768	1,540,248	17.3
73–74.	0.012254	88,266	1,082	87,725	1,451,480	16.4
74–75.	0.013347	87,184	1,164	86,602	1,363,755	15.6
75–76.	0.014622	86,020	1,258	85,392	1,277,152	14.8
76–77.	0.016319	84,763	1,383	84,071	1,191,761	14.1
77–78.	0.018463	83,379	1,539	82,610	1,107,690	13.3
78–79.	0.021207	81,840	1,736	80,972	1,025,080	12.5
79–80.	0.024206	80,104	1,939	79,135	944,108	11.8
80–81.	0.027618	78,165	2,159	77,086	864,973	11.1
81–82.	0.031376	76,007	2,385	74,814	787,887	10.4
82–83.	0.035843	73,622	2,639	72,302	713,073	9.7
83–84.	0.041158	70,983	2,922	69,522	640,770	9.0
84–85.	0.047688	68,062	3,246	66,439	571,248	8.4
85–86.	0.054647	64,816	3,542	63,045	504,809	7.8
86–87.	0.061298	61,274	3,756	59,396	441,764	7.2
87–88.	0.071127	57,518	4,091	55,472	382,369	6.6
88–89.	0.082294	53,427	4,397	51,228	326,896	6.1
89–90.	0.094904	49,030	4,653	46,703	275,668	5.6
90–91.	0.109048	44,377	4,839	41,957	228,965	5.2
91–92.	0.124796	39,538	4,934	37,071	187,007	4.7
92–93.	0.142186	34,604	4,920	32,143	149,937	4.3
93–94.	0.161218	29,683	4,785	27,291	117,793	4.0
94–95.	0.181845	24,898	4,528	22,634	90,503	3.6
95–96.	0.203967	20,370	4,155	18,293	67,869	3.3
96–97.	0.227431	16,215	3,688	14,372	49,576	3.1
97–98.	0.252031	12,528	3,157	10,949	35,204	2.8
98–99.	0.277511	9,370	2,600	8,070	24,255	2.6
99–100.	0.303577	6,770	2,055	5,742	16,185	2.4
100 and over	1.000000	4,715	4,715	10,443	10,443	2.2

NOTE: This life table is based on death rates that have been adjusted for race and Hispanic-origin misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

Table 13. Life table for the non-Hispanic Black population: United States, 2020

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table13.xlsx.

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
0–1.	0.010333	100,000	1,033	99,114	7,154,544	71.5
1–2.	0.000744	98,967	74	98,930	7,055,430	71.3
2–3.	0.000446	98,893	44	98,871	6,956,500	70.3
3–4.	0.000325	98,849	32	98,833	6,857,629	69.4
4–5.	0.000236	98,817	23	98,805	6,758,796	68.4
5–6.	0.000253	98,794	25	98,781	6,659,991	67.4
6–7.	0.000235	98,769	23	98,757	6,561,210	66.4
7–8.	0.000217	98,745	21	98,735	6,462,453	65.4
8–9.	0.000191	98,724	19	98,714	6,363,718	64.5
9–10.	0.000162	98,705	16	98,697	6,265,004	63.5
10–11.	0.000142	98,689	14	98,682	6,166,307	62.5
11–12.	0.000152	98,675	15	98,668	6,067,625	61.5
12–13.	0.000217	98,660	21	98,649	5,968,957	60.5
13–14.	0.000351	98,639	35	98,621	5,870,308	59.5
14–15.	0.000540	98,604	53	98,577	5,771,687	58.5
15–16.	0.000749	98,551	74	98,514	5,673,109	57.6
16–17.	0.000959	98,477	94	98,430	5,574,596	56.6
17–18.	0.001180	98,382	116	98,324	5,476,166	55.7
18–19.	0.001402	98,266	138	98,197	5,377,842	54.7
19–20.	0.001617	98,129	159	98,049	5,279,644	53.8
20–21.	0.001841	97,970	180	97,880	5,181,595	52.9
21–22.	0.002051	97,790	201	97,689	5,083,715	52.0
22–23.	0.002195	97,589	214	97,482	4,986,026	51.1
23–24.	0.002254	97,375	219	97,265	4,888,544	50.2
24–25.	0.002254	97,155	219	97,046	4,791,279	49.3
25–26.	0.002233	96,936	216	96,828	4,694,233	48.4
26–27.	0.002228	96,720	216	96,612	4,597,405	47.5
27–28.	0.002254	96,504	218	96,396	4,500,793	46.6
28–29.	0.002329	96,287	224	96,175	4,404,397	45.7
29–30.	0.002444	96,063	235	95,945	4,308,222	44.8
30–31.	0.002576	95,828	247	95,704	4,212,277	44.0
31–32.	0.002706	95,581	259	95,452	4,116,573	43.1
32–33.	0.002838	95,322	271	95,187	4,021,121	42.2
33–34.	0.002964	95,052	282	94,911	3,925,934	41.3
34–35.	0.003090	94,770	293	94,624	3,831,023	40.4
35–36.	0.003230	94,477	305	94,325	3,736,400	39.5
36–37.	0.003394	94,172	320	94,012	3,642,075	38.7
37–38.	0.003569	93,852	335	93,685	3,548,063	37.8
38–39.	0.003752	93,517	351	93,342	3,454,378	36.9
39–40.	0.003945	93,167	368	92,983	3,361,036	36.1
40–41.	0.004159	92,799	386	92,606	3,268,053	35.2
41–42.	0.004394	92,413	406	92,210	3,175,447	34.4
42–43.	0.004643	92,007	427	91,793	3,083,237	33.5
43–44.	0.004904	91,580	449	91,355	2,991,444	32.7
44–45.	0.005185	91,131	473	90,894	2,900,089	31.8
45–46.	0.005501	90,658	499	90,409	2,809,194	31.0
46–47.	0.005856	90,159	528	89,895	2,718,785	30.2
47–48.	0.006239	89,631	559	89,352	2,628,890	29.3
48–49.	0.006652	89,072	592	88,776	2,539,538	28.5
49–50.	0.007104	88,480	629	88,165	2,450,762	27.7
50–51.	0.007587	87,851	667	87,518	2,362,597	26.9
51–52.	0.008133	87,185	709	86,830	2,275,079	26.1
52–53.	0.008786	86,476	760	86,096	2,188,249	25.3
53–54.	0.009557	85,716	819	85,306	2,102,153	24.5
54–55.	0.010415	84,897	884	84,454	2,016,847	23.8
55–56.	0.011277	84,012	947	83,539	1,932,392	23.0
56–57.	0.012158	83,065	1,010	82,560	1,848,854	22.3
57–58.	0.013154	82,055	1,079	81,515	1,766,294	21.5
58–59.	0.014307	80,976	1,159	80,396	1,684,779	20.8
59–60.	0.015596	79,817	1,245	79,195	1,604,382	20.1

See footnotes at end of table.

Table 13. Life table for the non-Hispanic Black population: United States, 2020—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table13.xlsx.

Age (years)	Probability of dying between ages x and x + 1	Number surviving to age x	Number dying between ages x and x + 1	Person-years lived between ages x and x + 1	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
60–61	0.016966	78,572	1,333	77,906	1,525,187	19.4
61–62	0.018348	77,239	1,417	76,531	1,447,282	18.7
62–63	0.019748	75,822	1,497	75,073	1,370,751	18.1
63–64	0.021168	74,325	1,573	73,538	1,295,678	17.4
64–65	0.022644	72,751	1,647	71,928	1,222,140	16.8
65–66	0.024271	71,104	1,726	70,241	1,150,212	16.2
66–67	0.026023	69,378	1,805	68,475	1,079,971	15.6
67–68	0.027751	67,573	1,875	66,635	1,011,495	15.0
68–69	0.029417	65,698	1,933	64,731	944,860	14.4
69–70	0.031011	63,765	1,977	62,776	880,129	13.8
70–71	0.032832	61,788	2,029	60,773	817,353	13.2
71–72	0.034658	59,759	2,071	58,723	756,580	12.7
72–73	0.036971	57,688	2,133	56,621	697,856	12.1
73–74	0.039181	55,555	2,177	54,467	641,235	11.5
74–75	0.042672	53,378	2,278	52,239	586,768	11.0
75–76	0.045194	51,101	2,309	49,946	534,529	10.5
76–77	0.049779	48,791	2,429	47,577	484,583	9.9
77–78	0.054239	46,362	2,515	45,105	437,006	9.4
78–79	0.058719	43,848	2,575	42,560	391,901	8.9
79–80	0.062829	41,273	2,593	39,976	349,341	8.5
80–81	0.068089	38,680	2,634	37,363	309,364	8.0
81–82	0.074472	36,046	2,684	34,704	272,001	7.5
82–83	0.080632	33,362	2,690	32,017	237,297	7.1
83–84	0.087451	30,672	2,682	29,331	205,280	6.7
84–85	0.094810	27,989	2,654	26,663	175,950	6.3
85–86	0.105159	25,336	2,664	24,004	149,287	5.9
86–87	0.115199	22,671	2,612	21,366	125,283	5.5
87–88	0.125981	20,060	2,527	18,796	103,918	5.2
88–89	0.137521	17,533	2,411	16,327	85,122	4.9
89–90	0.149826	15,122	2,266	13,989	68,794	4.5
90–91	0.162892	12,856	2,094	11,809	54,806	4.3
91–92	0.176708	10,762	1,902	9,811	42,997	4.0
92–93	0.191251	8,860	1,695	8,013	33,186	3.7
93–94	0.206487	7,166	1,480	6,426	25,173	3.5
94–95	0.222369	5,686	1,264	5,054	18,747	3.3
95–96	0.238838	4,422	1,056	3,894	13,694	3.1
96–97	0.255825	3,366	861	2,935	9,800	2.9
97–98	0.273248	2,505	684	2,162	6,865	2.7
98–99	0.291017	1,820	530	1,555	4,703	2.6
99–100	0.309035	1,290	399	1,091	3,147	2.4
100 and over	1.000000	892	892	2,056	2,056	2.3

NOTE: This life table is based on death rates that have been adjusted for race and Hispanic-origin misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

Table 14. Life table for non-Hispanic Black males: United States, 2020

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table14.xlsx.

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
0–1.........................	0.011160	100,000	1,116	99,044	6,778,014	67.8
1–2.........................	0.000795	98,884	79	98,845	6,678,970	67.5
2–3.........................	0.000468	98,805	46	98,782	6,580,125	66.6
3–4.........................	0.000306	98,759	30	98,744	6,481,343	65.6
4–5.........................	0.000244	98,729	24	98,717	6,382,599	64.6
5–6.........................	0.000260	98,705	26	98,692	6,283,882	63.7
6–7.........................	0.000253	98,679	25	98,667	6,185,190	62.7
7–8.........................	0.000236	98,654	23	98,643	6,086,523	61.7
8–9.........................	0.000201	98,631	20	98,621	5,987,881	60.7
9–10........................	0.000151	98,611	15	98,604	5,889,260	59.7
10–11.......................	0.000113	98,596	11	98,591	5,790,656	58.7
11–12.......................	0.000123	98,585	12	98,579	5,692,065	57.7
12–13.......................	0.000226	98,573	22	98,562	5,593,486	56.7
13–14.......................	0.000449	98,551	44	98,529	5,494,924	55.8
14–15.......................	0.000765	98,506	75	98,469	5,396,396	54.8
15–16.......................	0.001114	98,431	110	98,376	5,297,927	53.8
16–17.......................	0.001458	98,321	143	98,250	5,199,551	52.9
17–18.......................	0.001811	98,178	178	98,089	5,101,301	52.0
18–19.......................	0.002155	98,000	211	97,895	5,003,212	51.1
19–20.......................	0.002480	97,789	242	97,668	4,905,317	50.2
20–21.......................	0.002815	97,547	275	97,409	4,807,649	49.3
21–22.......................	0.003126	97,272	304	97,120	4,710,240	48.4
22–23.......................	0.003328	96,968	323	96,807	4,613,120	47.6
23–24.......................	0.003386	96,645	327	96,482	4,516,313	46.7
24–25.......................	0.003350	96,318	323	96,157	4,419,831	45.9
25–26.......................	0.003277	95,995	315	95,838	4,323,675	45.0
26–27.......................	0.003233	95,681	309	95,526	4,227,837	44.2
27–28.......................	0.003238	95,371	309	95,217	4,132,310	43.3
28–29.......................	0.003321	95,063	316	94,905	4,037,093	42.5
29–30.......................	0.003467	94,747	328	94,583	3,942,189	41.6
30–31.......................	0.003637	94,418	343	94,247	3,847,606	40.8
31–32.......................	0.003799	94,075	357	93,896	3,753,359	39.9
32–33.......................	0.003965	93,718	372	93,532	3,659,463	39.0
33–34.......................	0.004124	93,346	385	93,154	3,565,931	38.2
34–35.......................	0.004280	92,961	398	92,762	3,472,778	37.4
35–36.......................	0.004459	92,563	413	92,357	3,380,015	36.5
36–37.......................	0.004666	92,151	430	91,936	3,287,658	35.7
37–38.......................	0.004874	91,721	447	91,497	3,195,723	34.8
38–39.......................	0.005071	91,274	463	91,042	3,104,226	34.0
39–40.......................	0.005265	90,811	478	90,572	3,013,184	33.2
40–41.......................	0.005475	90,333	495	90,085	2,922,612	32.4
41–42.......................	0.005719	89,838	514	89,581	2,832,527	31.5
42–43.......................	0.006000	89,324	536	89,056	2,742,946	30.7
43–44.......................	0.006328	88,788	562	88,507	2,653,889	29.9
44–45.......................	0.006703	88,226	591	87,931	2,565,382	29.1
45–46.......................	0.007131	87,635	625	87,323	2,477,451	28.3
46–47.......................	0.007603	87,010	661	86,679	2,390,129	27.5
47–48.......................	0.008102	86,349	700	85,999	2,303,449	26.7
48–49.......................	0.008624	85,649	739	85,280	2,217,450	25.9
49–50.......................	0.009183	84,910	780	84,521	2,132,171	25.1
50–51.......................	0.009778	84,131	823	83,719	2,047,650	24.3
51–52.......................	0.010455	83,308	871	82,872	1,963,931	23.6
52–53.......................	0.011268	82,437	929	81,973	1,881,058	22.8
53–54.......................	0.012237	81,508	997	81,009	1,799,086	22.1
54–55.......................	0.013325	80,511	1,073	79,974	1,718,076	21.3
55–56.......................	0.014416	79,438	1,145	78,865	1,638,102	20.6
56–57.......................	0.015536	78,293	1,216	77,684	1,559,237	19.9
57–58.......................	0.016819	77,076	1,296	76,428	1,481,552	19.2
58–59.......................	0.018329	75,780	1,389	75,085	1,405,124	18.5
59–60.......................	0.020032	74,391	1,490	73,646	1,330,039	17.9

See footnotes at end of table.

Table 14. Life table for non-Hispanic Black males: United States, 2020—Con.

Spreadsheet version available from: *https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table14.xlsx*.

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
60–61.	0.021847	72,901	1,593	72,104	1,256,393	17.2
61–62.	0.023679	71,308	1,689	70,464	1,184,289	16.6
62–63.	0.025547	69,620	1,779	68,730	1,113,825	16.0
63–64.	0.027459	67,841	1,863	66,910	1,045,095	15.4
64–65.	0.029471	65,978	1,944	65,006	978,185	14.8
65–66.	0.031722	64,034	2,031	63,018	913,179	14.3
66–67.	0.034145	62,002	2,117	60,944	850,161	13.7
67–68.	0.036477	59,885	2,184	58,793	789,217	13.2
68–69.	0.038671	57,701	2,231	56,585	730,424	12.7
69–70.	0.040737	55,470	2,260	54,340	673,839	12.1
70–71.	0.042958	53,210	2,286	52,067	619,499	11.6
71–72.	0.044970	50,924	2,290	49,779	567,432	11.1
72–73.	0.047916	48,634	2,330	47,469	517,653	10.6
73–74.	0.050562	46,304	2,341	45,133	470,184	10.2
74–75.	0.054842	43,963	2,411	42,757	425,051	9.7
75–76.	0.057705	41,552	2,398	40,353	382,294	9.2
76–77.	0.063015	39,154	2,467	37,920	341,942	8.7
77–78.	0.068320	36,687	2,506	35,433	304,022	8.3
78–79.	0.073654	34,180	2,517	32,921	268,588	7.9
79–80.	0.077791	31,663	2,463	30,431	235,667	7.4
80–81.	0.084397	29,200	2,464	27,967	205,236	7.0
81–82.	0.090743	26,735	2,426	25,522	177,268	6.6
82–83.	0.099202	24,309	2,412	23,103	151,746	6.2
83–84.	0.106567	21,898	2,334	20,731	128,643	5.9
84–85.	0.116684	19,564	2,283	18,423	107,912	5.5
85–86.	0.127237	17,281	2,199	16,182	89,489	5.2
86–87.	0.138504	15,082	2,089	14,038	73,307	4.9
87–88.	0.150491	12,993	1,955	12,016	59,269	4.6
88–89.	0.163195	11,038	1,801	10,137	47,254	4.3
89–90.	0.176604	9,237	1,631	8,421	37,116	4.0
90–91.	0.190698	7,605	1,450	6,880	28,695	3.8
91–92.	0.205444	6,155	1,265	5,523	21,815	3.5
92–93.	0.220803	4,891	1,080	4,351	16,292	3.3
93–94.	0.236720	3,811	902	3,360	11,941	3.1
94–95.	0.253133	2,909	736	2,541	8,582	3.0
95–96.	0.269969	2,172	586	1,879	6,041	2.8
96–97.	0.287148	1,586	455	1,358	4,162	2.6
97–98.	0.304580	1,131	344	958	2,804	2.5
98–99.	0.322173	786	253	660	1,845	2.3
99–100.	0.339828	533	181	442	1,186	2.2
100 and over	1.000000	352	352	743	743	2.1

NOTE: This life table is based on death rates that have been adjusted for race and Hispanic-origin misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

Table 15. Life table for non-Hispanic Black females: United States, 2020

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table15.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
0–1.	0.009479	100,000	948	99,187	7,535,068	75.4
1–2.	0.000598	99,052	59	99,022	7,435,881	75.1
2–3.	0.000368	98,993	36	98,975	7,336,858	74.1
3–4.	0.000305	98,956	30	98,941	7,237,884	73.1
4–5.	0.000200	98,926	20	98,916	7,138,943	72.2
5–6.	0.000217	98,906	21	98,896	7,040,026	71.2
6–7.	0.000194	98,885	19	98,875	6,941,131	70.2
7–8.	0.000174	98,866	17	98,857	6,842,255	69.2
8–9.	0.000157	98,849	15	98,841	6,743,398	68.2
9–10.	0.000142	98,833	14	98,826	6,644,557	67.2
10–11.	0.000135	98,819	13	98,812	6,545,731	66.2
11–12.	0.000140	98,806	14	98,799	6,446,919	65.2
12–13.	0.000165	98,792	16	98,784	6,348,120	64.3
13–14.	0.000213	98,776	21	98,765	6,249,337	63.3
14–15.	0.000282	98,755	28	98,741	6,150,572	62.3
15–16.	0.000361	98,727	36	98,709	6,051,831	61.3
16–17.	0.000444	98,691	44	98,669	5,953,122	60.3
17–18.	0.000536	98,647	53	98,621	5,854,453	59.3
18–19.	0.000635	98,594	63	98,563	5,755,832	58.4
19–20.	0.000737	98,532	73	98,495	5,657,269	57.4
20–21.	0.000846	98,459	83	98,418	5,558,774	56.5
21–22.	0.000951	98,376	94	98,329	5,460,356	55.5
22–23.	0.001035	98,282	102	98,231	5,362,027	54.6
23–24.	0.001089	98,181	107	98,127	5,263,796	53.6
24–25.	0.001123	98,074	110	98,019	5,165,669	52.7
25–26.	0.001148	97,964	112	97,907	5,067,650	51.7
26–27.	0.001181	97,851	116	97,793	4,969,743	50.8
27–28.	0.001230	97,735	120	97,675	4,871,949	49.8
28–29.	0.001304	97,615	127	97,552	4,774,274	48.9
29–30.	0.001400	97,488	136	97,420	4,676,723	48.0
30–31.	0.001510	97,351	147	97,278	4,579,303	47.0
31–32.	0.001623	97,204	158	97,126	4,482,025	46.1
32–33.	0.001737	97,047	169	96,962	4,384,899	45.2
33–34.	0.001846	96,878	179	96,789	4,287,937	44.3
34–35.	0.001955	96,699	189	96,605	4,191,148	43.3
35–36.	0.002074	96,510	200	96,410	4,094,544	42.4
36–37.	0.002211	96,310	213	96,204	3,998,133	41.5
37–38.	0.002369	96,097	228	95,983	3,901,930	40.6
38–39.	0.002549	95,870	244	95,747	3,805,947	39.7
39–40.	0.002748	95,625	263	95,494	3,710,199	38.8
40–41.	0.002969	95,362	283	95,221	3,614,705	37.9
41–42.	0.003200	95,079	304	94,927	3,519,485	37.0
42–43.	0.003425	94,775	325	94,613	3,424,557	36.1
43–44.	0.003633	94,450	343	94,279	3,329,945	35.3
44–45.	0.003837	94,107	361	93,927	3,235,666	34.4
45–46.	0.004061	93,746	381	93,556	3,141,739	33.5
46–47.	0.004319	93,365	403	93,164	3,048,183	32.6
47–48.	0.004604	92,962	428	92,748	2,955,020	31.8
48–49.	0.004923	92,534	456	92,306	2,862,271	30.9
49–50.	0.005280	92,079	486	91,836	2,769,965	30.1
50–51.	0.005663	91,592	519	91,333	2,678,130	29.2
51–52.	0.006092	91,074	555	90,796	2,586,797	28.4
52–53.	0.006603	90,519	598	90,220	2,496,000	27.6
53–54.	0.007203	89,921	648	89,597	2,405,780	26.8
54–55.	0.007866	89,273	702	88,922	2,316,183	25.9
55–56.	0.008535	88,571	756	88,193	2,227,261	25.1
56–57.	0.009218	87,815	809	87,410	2,139,068	24.4
57–58.	0.009975	87,006	868	86,572	2,051,657	23.6
58–59.	0.010836	86,138	933	85,671	1,965,085	22.8
59–60.	0.011789	85,204	1,005	84,702	1,879,414	22.1

See footnotes at end of table.

Table 15. Life table for non-Hispanic Black females: United States, 2020—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table15.xlsx.

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
60–61.	0.012800	84,200	1,078	83,661	1,794,712	21.3
61–62.	0.013827	83,122	1,149	82,548	1,711,051	20.6
62–63.	0.014876	81,973	1,219	81,363	1,628,503	19.9
63–64.	0.015951	80,753	1,288	80,109	1,547,140	19.2
64–65.	0.017076	79,465	1,357	78,787	1,467,031	18.5
65–66.	0.018312	78,108	1,430	77,393	1,388,244	17.8
66–67.	0.019646	76,678	1,506	75,925	1,310,851	17.1
67–68.	0.021010	75,172	1,579	74,382	1,234,926	16.4
68–69.	0.022344	73,592	1,644	72,770	1,160,544	15.8
69–70.	0.023635	71,948	1,700	71,098	1,087,774	15.1
70–71.	0.025195	70,247	1,770	69,363	1,016,676	14.5
71–72.	0.026958	68,478	1,846	67,555	947,314	13.8
72–73.	0.028848	66,632	1,922	65,670	879,759	13.2
73–74.	0.030837	64,709	1,995	63,712	814,089	12.6
74–75.	0.033881	62,714	2,125	61,651	750,377	12.0
75–76.	0.036333	60,589	2,201	59,488	688,726	11.4
76–77.	0.040537	58,388	2,367	57,204	629,237	10.8
77–78.	0.044611	56,021	2,499	54,771	572,033	10.2
78–79.	0.048682	53,522	2,606	52,219	517,262	9.7
79–80.	0.053089	50,916	2,703	49,565	465,043	9.1
80–81.	0.057664	48,213	2,780	46,823	415,479	8.6
81–82.	0.064250	45,433	2,919	43,973	368,656	8.1
82–83.	0.069263	42,514	2,945	41,041	324,682	7.6
83–84.	0.076076	39,569	3,010	38,064	283,641	7.2
84–85.	0.082680	36,559	3,023	35,048	245,577	6.7
85–86.	0.092433	33,536	3,100	31,986	210,529	6.3
86–87.	0.102335	30,436	3,115	28,879	178,543	5.9
87–88.	0.113089	27,322	3,090	25,777	149,664	5.5
88–89.	0.124724	24,232	3,022	22,721	123,887	5.1
89–90.	0.137258	21,210	2,911	19,754	101,166	4.8
90–91.	0.150703	18,298	2,758	16,920	81,412	4.4
91–92.	0.165053	15,541	2,565	14,258	64,493	4.1
92–93.	0.180293	12,976	2,339	11,806	50,235	3.9
93–94.	0.196388	10,636	2,089	9,592	38,429	3.6
94–95.	0.213291	8,547	1,823	7,636	28,837	3.4
95–96.	0.230934	6,724	1,553	5,948	21,201	3.2
96–97.	0.249234	5,171	1,289	4,527	15,253	2.9
97–98.	0.268092	3,883	1,041	3,362	10,726	2.8
98–99.	0.287394	2,842	817	2,433	7,364	2.6
99–100.	0.307016	2,025	622	1,714	4,930	2.4
100 and over	1.000000	1,403	1,403	3,216	3,216	2.3

NOTE: This life table is based on death rates that have been adjusted for race and Hispanic-origin misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

Table 16. Life table for the non-Hispanic White population: United States, 2020

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table16.xlsx.

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
0–1.	0.004381	100,000	438	99,616	7,739,972	77.4
1–2.	0.000308	99,562	31	99,547	7,640,356	76.7
2–3.	0.000208	99,531	21	99,521	7,540,809	75.8
3–4.	0.000177	99,510	18	99,502	7,441,288	74.8
4–5.	0.000129	99,493	13	99,486	7,341,787	73.8
5–6.	0.000118	99,480	12	99,474	7,242,300	72.8
6–7.	0.000105	99,468	10	99,463	7,142,826	71.8
7–8.	0.000095	99,458	9	99,453	7,043,363	70.8
8–9.	0.000089	99,448	9	99,444	6,943,910	69.8
9–10.	0.000085	99,440	8	99,435	6,844,466	68.8
10–11.	0.000088	99,431	9	99,427	6,745,030	67.8
11–12.	0.000103	99,422	10	99,417	6,645,603	66.8
12–13.	0.000134	99,412	13	99,406	6,546,186	65.8
13–14.	0.000186	99,399	18	99,390	6,446,781	64.9
14–15.	0.000253	99,380	25	99,368	6,347,391	63.9
15–16.	0.000327	99,355	33	99,339	6,248,023	62.9
16–17.	0.000405	99,323	40	99,303	6,148,684	61.9
17–18.	0.000488	99,283	48	99,258	6,049,382	60.9
18–19.	0.000574	99,234	57	99,206	5,950,123	60.0
19–20.	0.000664	99,177	66	99,144	5,850,918	59.0
20–21.	0.000758	99,111	75	99,074	5,751,774	58.0
21–22.	0.000854	99,036	85	98,994	5,652,700	57.1
22–23.	0.000946	98,951	94	98,905	5,553,706	56.1
23–24.	0.001031	98,858	102	98,807	5,454,802	55.2
24–25.	0.001110	98,756	110	98,701	5,355,995	54.2
25–26.	0.001185	98,646	117	98,588	5,257,293	53.3
26–27.	0.001261	98,529	124	98,467	5,158,705	52.4
27–28.	0.001341	98,405	132	98,339	5,060,238	51.4
28–29.	0.001428	98,273	140	98,203	4,961,899	50.5
29–30.	0.001521	98,133	149	98,058	4,863,696	49.6
30–31.	0.001617	97,984	158	97,904	4,765,638	48.6
31–32.	0.001711	97,825	167	97,741	4,667,733	47.7
32–33.	0.001801	97,658	176	97,570	4,569,992	46.8
33–34.	0.001885	97,482	184	97,390	4,472,422	45.9
34–35.	0.001966	97,298	191	97,202	4,375,032	45.0
35–36.	0.002052	97,107	199	97,007	4,277,830	44.1
36–37.	0.002144	96,907	208	96,804	4,180,822	43.1
37–38.	0.002230	96,700	216	96,592	4,084,019	42.2
38–39.	0.002310	96,484	223	96,373	3,987,427	41.3
39–40.	0.002389	96,261	230	96,146	3,891,054	40.4
40–41.	0.002483	96,031	238	95,912	3,794,908	39.5
41–42.	0.002597	95,793	249	95,668	3,698,996	38.6
42–43.	0.002727	95,544	261	95,414	3,603,328	37.7
43–44.	0.002871	95,283	274	95,147	3,507,914	36.8
44–45.	0.003034	95,010	288	94,866	3,412,768	35.9
45–46.	0.003225	94,722	305	94,569	3,317,902	35.0
46–47.	0.003446	94,416	325	94,254	3,223,333	34.1
47–48.	0.003690	94,091	347	93,917	3,129,079	33.3
48–49.	0.003955	93,744	371	93,558	3,035,162	32.4
49–50.	0.004246	93,373	397	93,175	2,941,604	31.5
50–51.	0.004555	92,976	424	92,765	2,848,429	30.6
51–52.	0.004903	92,553	454	92,326	2,755,665	29.8
52–53.	0.005319	92,099	490	91,854	2,663,339	28.9
53–54.	0.005808	91,609	532	91,343	2,571,485	28.1
54–55.	0.006345	91,077	578	90,788	2,480,142	27.2
55–56.	0.006880	90,499	623	90,188	2,389,354	26.4
56–57.	0.007418	89,877	667	89,543	2,299,166	25.6
57–58.	0.008005	89,210	714	88,853	2,209,622	24.8
58–59.	0.008663	88,496	767	88,113	2,120,769	24.0
59–60.	0.009381	87,729	823	87,318	2,032,657	23.2

See footnotes at end of table.

Table 16. Life table for the non-Hispanic White population: United States, 2020—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table16.xlsx.

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
60–61.	0.010161	86,906	883	86,465	1,945,339	22.4
61–62.	0.010954	86,023	942	85,552	1,858,875	21.6
62–63.	0.011719	85,081	997	84,582	1,773,322	20.8
63–64.	0.012441	84,084	1,046	83,561	1,688,740	20.1
64–65.	0.013165	83,038	1,093	82,491	1,605,179	19.3
65–66.	0.013931	81,945	1,142	81,374	1,522,688	18.6
66–67.	0.014886	80,803	1,203	80,202	1,441,314	17.8
67–68.	0.015979	79,600	1,272	78,964	1,361,113	17.1
68–69.	0.017293	78,328	1,355	77,651	1,282,149	16.4
69–70.	0.018745	76,974	1,443	76,252	1,204,498	15.6
70–71.	0.020327	75,531	1,535	74,763	1,128,246	14.9
71–72.	0.022075	73,996	1,633	73,179	1,053,482	14.2
72–73.	0.024109	72,362	1,745	71,490	980,304	13.5
73–74.	0.026020	70,617	1,837	69,699	908,814	12.9
74–75.	0.029438	68,780	2,025	67,768	839,115	12.2
75–76.	0.032123	66,755	2,144	65,683	771,347	11.6
76–77.	0.035823	64,611	2,315	63,454	705,664	10.9
77–78.	0.039329	62,296	2,450	61,071	642,210	10.3
78–79.	0.044047	59,846	2,636	58,528	581,139	9.7
79–80.	0.048523	57,210	2,776	55,822	522,611	9.1
80–81.	0.053655	54,434	2,921	52,974	466,788	8.6
81–82.	0.059318	51,514	3,056	49,986	413,815	8.0
82–83.	0.065733	48,458	3,185	46,865	363,829	7.5
83–84.	0.073823	45,273	3,342	43,602	316,963	7.0
84–85.	0.082694	41,930	3,467	40,197	273,362	6.5
85–86.	0.092475	38,463	3,557	36,685	233,165	6.1
86–87.	0.101001	34,906	3,526	33,143	196,480	5.6
87–88.	0.113813	31,381	3,572	29,595	163,337	5.2
88–89.	0.127884	27,809	3,556	26,031	133,742	4.8
89–90.	0.143243	24,253	3,474	22,516	107,711	4.4
90–91.	0.159900	20,779	3,323	19,117	85,195	4.1
91–92.	0.177835	17,456	3,104	15,904	66,078	3.8
92–93.	0.197001	14,352	2,827	12,938	50,174	3.5
93–94.	0.217313	11,525	2,504	10,272	37,236	3.2
94–95.	0.238655	9,020	2,153	7,944	26,963	3.0
95–96.	0.260877	6,867	1,792	5,972	19,020	2.8
96–97.	0.283796	5,076	1,441	4,356	13,048	2.6
97–98.	0.307204	3,635	1,117	3,077	8,692	2.4
98–99.	0.330874	2,519	833	2,102	5,615	2.2
99–100.	0.354569	1,685	598	1,386	3,513	2.1
100 and over	1.000000	1,088	1,088	2,127	2,127	2.0

NOTE: This life table is based on death rates that have been adjusted for race and Hispanic-origin misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

Table 17. Life table for non-Hispanic White males: United States, 2020

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table17.xlsx.

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
0–1.	0.004743	100,000	474	99,584	7,480,346	74.8
1–2.	0.000365	99,526	36	99,508	7,380,762	74.2
2–3.	0.000267	99,489	27	99,476	7,281,255	73.2
3–4.	0.000216	99,463	22	99,452	7,181,779	72.2
4–5.	0.000162	99,441	16	99,433	7,082,327	71.2
5–6.	0.000144	99,425	14	99,418	6,982,894	70.2
6–7.	0.000127	99,411	13	99,405	6,883,476	69.2
7–8.	0.000115	99,398	11	99,393	6,784,071	68.3
8–9.	0.000107	99,387	11	99,382	6,684,678	67.3
9–10.	0.000104	99,376	10	99,371	6,585,297	66.3
10–11.	0.000110	99,366	11	99,360	6,485,926	65.3
11–12.	0.000132	99,355	13	99,348	6,386,565	64.3
12–13.	0.000177	99,342	18	99,333	6,287,217	63.3
13–14.	0.000250	99,324	25	99,312	6,187,884	62.3
14–15.	0.000344	99,299	34	99,282	6,088,572	61.3
15–16.	0.000448	99,265	44	99,243	5,989,290	60.3
16–17.	0.000556	99,221	55	99,193	5,890,047	59.4
17–18.	0.000673	99,166	67	99,132	5,790,853	58.4
18–19.	0.000800	99,099	79	99,059	5,691,721	57.4
19–20.	0.000933	99,020	92	98,974	5,592,661	56.5
20–21.	0.001072	98,927	106	98,874	5,493,688	55.5
21–22.	0.001212	98,821	120	98,761	5,394,814	54.6
22–23.	0.001341	98,702	132	98,635	5,296,052	53.7
23–24.	0.001453	98,569	143	98,498	5,197,417	52.7
24–25.	0.001551	98,426	153	98,350	5,098,919	51.8
25–26.	0.001642	98,273	161	98,193	5,000,570	50.9
26–27.	0.001735	98,112	170	98,027	4,902,377	50.0
27–28.	0.001836	97,942	180	97,852	4,804,350	49.1
28–29.	0.001951	97,762	191	97,666	4,706,499	48.1
29–30.	0.002076	97,571	203	97,470	4,608,832	47.2
30–31.	0.002206	97,369	215	97,261	4,511,362	46.3
31–32.	0.002332	97,154	227	97,041	4,414,101	45.4
32–33.	0.002446	96,927	237	96,809	4,317,061	44.5
33–34.	0.002543	96,690	246	96,567	4,220,252	43.6
34–35.	0.002628	96,444	253	96,318	4,123,685	42.8
35–36.	0.002718	96,191	261	96,060	4,027,367	41.9
36–37.	0.002815	95,929	270	95,794	3,931,307	41.0
37–38.	0.002908	95,659	278	95,520	3,835,512	40.1
38–39.	0.002998	95,381	286	95,238	3,739,992	39.2
39–40.	0.003092	95,095	294	94,948	3,644,754	38.3
40–41.	0.003204	94,801	304	94,649	3,549,806	37.4
41–42.	0.003339	94,497	316	94,340	3,455,156	36.6
42–43.	0.003487	94,182	328	94,018	3,360,817	35.7
43–44.	0.003645	93,854	342	93,682	3,266,799	34.8
44–45.	0.003821	93,511	357	93,333	3,173,116	33.9
45–46.	0.004031	93,154	376	92,966	3,079,784	33.1
46–47.	0.004283	92,779	397	92,580	2,986,817	32.2
47–48.	0.004571	92,381	422	92,170	2,894,237	31.3
48–49.	0.004896	91,959	450	91,734	2,802,067	30.5
49–50.	0.005262	91,509	482	91,268	2,710,334	29.6
50–51.	0.005652	91,027	514	90,770	2,619,066	28.8
51–52.	0.006089	90,513	551	90,237	2,528,296	27.9
52–53.	0.006616	89,961	595	89,664	2,438,059	27.1
53–54.	0.007238	89,366	647	89,043	2,348,395	26.3
54–55.	0.007925	88,719	703	88,368	2,259,352	25.5
55–56.	0.008611	88,016	758	87,637	2,170,985	24.7
56–57.	0.009300	87,258	811	86,853	2,083,347	23.9
57–58.	0.010052	86,447	869	86,012	1,996,494	23.1
58–59.	0.010895	85,578	932	85,112	1,910,482	22.3
59–60.	0.011813	84,646	1,000	84,146	1,825,370	21.6

See footnotes at end of table.

Table 17. Life table for non-Hispanic White males: United States, 2020—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table17.xlsx.

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
60–61.	0.012800	83,646	1,071	83,110	1,741,225	20.8
61–62.	0.013798	82,575	1,139	82,005	1,658,114	20.1
62–63.	0.014765	81,436	1,202	80,834	1,576,109	19.4
63–64.	0.015685	80,233	1,258	79,604	1,495,275	18.6
64–65.	0.016608	78,975	1,312	78,319	1,415,671	17.9
65–66.	0.017590	77,663	1,366	76,980	1,337,352	17.2
66–67.	0.018813	76,297	1,435	75,579	1,260,372	16.5
67–68.	0.020129	74,862	1,507	74,108	1,184,792	15.8
68–69.	0.021637	73,355	1,587	72,561	1,110,684	15.1
69–70.	0.023247	71,768	1,668	70,933	1,038,123	14.5
70–71.	0.024933	70,099	1,748	69,225	967,190	13.8
71–72.	0.026846	68,351	1,835	67,434	897,965	13.1
72–73.	0.029113	66,516	1,936	65,548	830,531	12.5
73–74.	0.031290	64,580	2,021	63,569	764,983	11.8
74–75.	0.035372	62,559	2,213	61,453	701,413	11.2
75–76.	0.038469	60,346	2,321	59,186	639,960	10.6
76–77.	0.042977	58,025	2,494	56,778	580,775	10.0
77–78.	0.047065	55,531	2,614	54,224	523,997	9.4
78–79.	0.052628	52,918	2,785	51,525	469,772	8.9
79–80.	0.057653	50,133	2,890	48,688	418,247	8.3
80–81.	0.063422	47,242	2,996	45,744	369,560	7.8
81–82.	0.069980	44,246	3,096	42,698	323,816	7.3
82–83.	0.076982	41,150	3,168	39,566	281,118	6.8
83–84.	0.086581	37,982	3,289	36,338	241,552	6.4
84–85.	0.096153	34,693	3,336	33,026	205,214	5.9
85–86.	0.107533	31,358	3,372	29,672	172,188	5.5
86–87.	0.116097	27,986	3,249	26,361	142,517	5.1
87–88.	0.130868	24,737	3,237	23,118	116,156	4.7
88–89.	0.147016	21,499	3,161	19,919	93,038	4.3
89–90.	0.164546	18,339	3,018	16,830	73,119	4.0
90–91.	0.183427	15,321	2,810	13,916	56,289	3.7
91–92.	0.203597	12,511	2,547	11,237	42,373	3.4
92–93.	0.224953	9,964	2,241	8,843	31,136	3.1
93–94.	0.247351	7,722	1,910	6,767	22,293	2.9
94–95.	0.270614	5,812	1,573	5,026	15,526	2.7
95–96.	0.294528	4,239	1,249	3,615	10,500	2.5
96–97.	0.318854	2,991	954	2,514	6,885	2.3
97–98.	0.343335	2,037	699	1,687	4,371	2.1
98–99.	0.367709	1,338	492	1,092	2,683	2.0
99–100.	0.391716	846	331	680	1,592	1.9
100 and over	1.000000	514	514	912	912	1.8

NOTE: This life table is based on death rates that have been adjusted for race and Hispanic-origin misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

Table 18. Life table for non-Hispanic White females: United States, 2020

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table18.xlsx.

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
0–1.	0.004001	100,000	400	99,651	8,009,863	80.1
1–2.	0.000245	99,600	24	99,588	7,910,212	79.4
2–3.	0.000149	99,575	15	99,568	7,810,624	78.4
3–4.	0.000136	99,561	13	99,554	7,711,056	77.5
4–5.	0.000094	99,547	9	99,542	7,611,503	76.5
5–6.	0.000090	99,538	9	99,533	7,511,960	75.5
6–7.	0.000081	99,529	8	99,525	7,412,427	74.5
7–8.	0.000074	99,521	7	99,517	7,312,902	73.5
8–9.	0.000069	99,513	7	99,510	7,213,385	72.5
9–10.	0.000067	99,506	7	99,503	7,113,875	71.5
10–11.	0.000068	99,500	7	99,496	7,014,372	70.5
11–12.	0.000076	99,493	8	99,489	6,914,876	69.5
12–13.	0.000093	99,486	9	99,481	6,815,387	68.5
13–14.	0.000122	99,476	12	99,470	6,715,906	67.5
14–15.	0.000159	99,464	16	99,456	6,616,435	66.5
15–16.	0.000202	99,448	20	99,438	6,516,979	65.5
16–17.	0.000247	99,428	25	99,416	6,417,541	64.5
17–18.	0.000292	99,404	29	99,389	6,318,125	63.6
18–19.	0.000336	99,375	33	99,358	6,218,735	62.6
19–20.	0.000381	99,341	38	99,322	6,119,377	61.6
20–21.	0.000427	99,304	42	99,282	6,020,055	60.6
21–22.	0.000477	99,261	47	99,237	5,920,773	59.6
22–23.	0.000530	99,214	53	99,187	5,821,535	58.7
23–24.	0.000587	99,161	58	99,132	5,722,348	57.7
24–25.	0.000645	99,103	64	99,071	5,623,216	56.7
25–26.	0.000703	99,039	70	99,004	5,524,145	55.8
26–27.	0.000761	98,969	75	98,932	5,425,140	54.8
27–28.	0.000821	98,894	81	98,854	5,326,209	53.9
28–29.	0.000881	98,813	87	98,769	5,227,355	52.9
29–30.	0.000943	98,726	93	98,679	5,128,586	51.9
30–31.	0.001006	98,633	99	98,583	5,029,906	51.0
31–32.	0.001071	98,534	105	98,481	4,931,323	50.0
32–33.	0.001139	98,428	112	98,372	4,832,842	49.1
33–34.	0.001213	98,316	119	98,256	4,734,470	48.2
34–35.	0.001290	98,197	127	98,133	4,636,214	47.2
35–36.	0.001375	98,070	135	98,003	4,538,080	46.3
36–37.	0.001464	97,935	143	97,864	4,440,078	45.3
37–38.	0.001544	97,792	151	97,716	4,342,214	44.4
38–39.	0.001613	97,641	157	97,562	4,244,498	43.5
39–40.	0.001678	97,483	164	97,402	4,146,935	42.5
40–41.	0.001753	97,320	171	97,235	4,049,534	41.6
41–42.	0.001846	97,149	179	97,060	3,952,299	40.7
42–43.	0.001957	96,970	190	96,875	3,855,239	39.8
43–44.	0.002088	96,780	202	96,679	3,758,364	38.8
44–45.	0.002238	96,578	216	96,470	3,661,685	37.9
45–46.	0.002411	96,362	232	96,246	3,565,215	37.0
46–47.	0.002604	96,130	250	96,005	3,468,969	36.1
47–48.	0.002805	95,879	269	95,745	3,372,965	35.2
48–49.	0.003011	95,610	288	95,466	3,277,220	34.3
49–50.	0.003229	95,322	308	95,169	3,181,753	33.4
50–51.	0.003458	95,015	329	94,850	3,086,585	32.5
51–52.	0.003719	94,686	352	94,510	2,991,734	31.6
52–53.	0.004029	94,334	380	94,144	2,897,224	30.7
53–54.	0.004391	93,954	413	93,748	2,803,080	29.8
54–55.	0.004788	93,541	448	93,317	2,709,333	29.0
55–56.	0.005186	93,094	483	92,852	2,616,015	28.1
56–57.	0.005585	92,611	517	92,352	2,523,163	27.2
57–58.	0.006022	92,094	555	91,816	2,430,811	26.4
58–59.	0.006510	91,539	596	91,241	2,338,995	25.6
59–60.	0.007045	90,943	641	90,623	2,247,754	24.7

See footnotes at end of table.

Table 18. Life table for non-Hispanic White females: United States, 2020—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/71-01/Table18.xlsx.

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
60–61.	0.007636	90,302	690	89,958	2,157,131	23.9
61–62.	0.008244	89,613	739	89,243	2,067,173	23.1
62–63.	0.008831	88,874	785	88,482	1,977,930	22.3
63–64.	0.009385	88,089	827	87,676	1,889,448	21.4
64–65.	0.009945	87,262	868	86,829	1,801,773	20.6
65–66.	0.010535	86,395	910	85,940	1,714,944	19.9
66–67.	0.011280	85,484	964	85,002	1,629,005	19.1
67–68.	0.012198	84,520	1,031	84,005	1,544,002	18.3
68–69.	0.013359	83,489	1,115	82,932	1,459,998	17.5
69–70.	0.014688	82,374	1,210	81,769	1,377,066	16.7
70–71.	0.016184	81,164	1,314	80,507	1,295,297	16.0
71–72.	0.017814	79,850	1,422	79,139	1,214,790	15.2
72–73.	0.019667	78,428	1,542	77,657	1,135,651	14.5
73–74.	0.021362	76,885	1,642	76,064	1,057,994	13.8
74–75.	0.024237	75,243	1,824	74,331	981,930	13.1
75–76.	0.026617	73,419	1,954	72,442	907,599	12.4
76–77.	0.029699	71,465	2,122	70,404	835,157	11.7
77–78.	0.032795	69,343	2,274	68,206	764,753	11.0
78–79.	0.036917	67,069	2,476	65,831	696,547	10.4
79–80.	0.041064	64,593	2,652	63,266	630,717	9.8
80–81.	0.045830	61,940	2,839	60,521	567,450	9.2
81–82.	0.050928	59,101	3,010	57,597	506,929	8.6
82–83.	0.057087	56,092	3,202	54,490	449,333	8.0
83–84.	0.064261	52,889	3,399	51,190	394,842	7.5
84–85.	0.072874	49,491	3,607	47,687	343,652	6.9
85–86.	0.081842	45,884	3,755	44,007	295,965	6.5
86–87.	0.090236	42,129	3,802	40,228	251,958	6.0
87–88.	0.102365	38,327	3,923	36,366	211,730	5.5
88–89.	0.115798	34,404	3,984	32,412	175,365	5.1
89–90.	0.130585	30,420	3,972	28,434	142,953	4.7
90–91.	0.146757	26,448	3,881	24,507	114,519	4.3
91–92.	0.164318	22,566	3,708	20,712	90,012	4.0
92–93.	0.183240	18,858	3,456	17,130	69,299	3.7
93–94.	0.203459	15,403	3,134	13,836	52,169	3.4
94–95.	0.224870	12,269	2,759	10,889	38,333	3.1
95–96.	0.247332	9,510	2,352	8,334	27,444	2.9
96–97.	0.270663	7,158	1,937	6,189	19,110	2.7
97–98.	0.294648	5,220	1,538	4,451	12,921	2.5
98–99.	0.319047	3,682	1,175	3,095	8,470	2.3
99–100.	0.343599	2,507	862	2,077	5,375	2.1
100 and over	1.000000	1,646	1,646	3,298	3,298	2.0

NOTE: This life table is based on death rates that have been adjusted for race and Hispanic-origin misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

Table 19. Estimated life expectancy at birth, in years, by Hispanic origin and race and sex: Death-registration states, 1900–1928, and United States, 1929–2020

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

Area and year	All races and origins			Hispanic[1]			Non-Hispanic American Indian or Alaska Native[1]			Non-Hispanic Asian[1]			Non-Hispanic Black[1,2]			Non-Hispanic White[1]		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both Sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
United States[3]										*Single race[4]*								
2020[5]	77.0	74.2	79.9	77.9	74.6	81.3	67.1	63.8	70.7	83.6	81.1	85.9	71.5	67.8	75.4	77.4	74.8	80.1
2019[5]	78.8	76.3	81.4	81.9	79.1	84.4	71.8	68.6	75.0	85.6	83.5	87.4	74.8	71.3	78.1	78.8	76.3	81.3
2018[5]	78.7	76.2	81.2	81.8	79.1	84.3	---	---	---	---	---	---	74.7	71.3	78.0	78.6	76.2	81.1
										Bridged race[4]								
2020[5]	...	...	...	...	...	...	---	---	---	---	---	---	71.9	68.1	75.6	77.5	74.9	80.2
2019[5]	...	...	...	...	...	...	---	---	---	---	---	---	75.0	71.6	78.2	78.8	76.4	81.3
2018[5]	...	...	...	...	...	...	---	---	---	---	---	---	74.9	71.5	78.1	78.7	76.2	81.1
2017[5]	78.6	76.1	81.1	81.8	79.1	84.3	---	---	---	---	---	---	74.9	71.5	78.1	78.5	76.1	81.0
2016[5]	78.7	76.2	81.1	81.8	79.1	84.3	---	---	---	---	---	---	74.9	71.6	78.0	78.6	76.2	81.0
2015[5]	78.7	76.3	81.1	81.9	79.3	84.3	---	---	---	---	---	---	75.1	71.9	78.1	78.7	76.3	81.0
2014[5]	78.9	76.5	81.3	82.1	79.4	84.5	---	---	---	---	---	---	75.3	72.2	78.2	78.8	76.5	81.2
2013[5]	78.8	76.4	81.2	81.9	79.2	84.2	---	---	---	---	---	---	75.1	71.9	78.1	78.8	76.5	81.2
2012[5]	78.8	76.4	81.2	81.9	79.3	84.3	---	---	---	---	---	---	75.1	71.9	78.1	78.9	76.5	81.2
2011[5]	78.7	76.3	81.1	81.8	79.2	84.2	---	---	---	---	---	---	75.0	71.8	77.8	78.7	76.4	81.1
2010[5]	78.7	76.2	81.0	81.7	78.8	84.3	---	---	---	---	---	---	74.7	71.5	77.7	78.8	76.4	81.1
2009[5,6]	78.5	76.0	80.9	81.1	78.4	83.5	---	---	---	---	---	---	74.4	71.0	77.4	78.7	76.3	81.0
2008[5,6]	78.2	75.6	80.6	80.8	78.0	83.3	---	---	---	---	---	---	73.9	70.5	77.0	78.4	76.0	80.7
2007[5,6]	78.1	75.5	80.6	80.7	77.8	83.2	---	---	---	---	---	---	73.5	69.9	76.7	78.4	75.9	80.8
2006[5,6]	77.8	75.2	80.3	80.3	77.5	82.9	---	---	---	---	---	---	73.1	69.5	76.4	78.2	75.7	80.6
2005[5,6]	77.6	75.0	80.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2004[5,6]	77.6	75.0	80.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2003[5,6]	77.2	74.5	79.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2002[5,6]	77.0	74.4	79.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2001[5,6]	77.0	74.3	79.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2000	76.8	74.1	79.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1999	76.7	73.9	79.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1998	76.7	73.8	79.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1997	76.5	73.6	79.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1996	76.1	73.1	79.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1995	75.8	72.5	78.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1994	75.7	72.4	79.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1993	75.5	72.2	78.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1992	75.8	72.3	79.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1991	75.5	72.0	78.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1990	75.4	71.8	78.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1989	75.1	71.7	78.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1988	74.9	71.4	78.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1987	74.9	71.4	78.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1986	74.7	71.2	78.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1985	74.7	71.1	78.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1984	74.7	71.1	78.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1983	74.6	71.0	78.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1982	74.5	70.8	78.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1981	74.1	70.4	77.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1980	73.7	70.0	77.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1979	73.9	70.0	77.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1978	73.5	69.6	77.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1977	73.3	69.5	77.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1976	72.9	69.1	76.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1975	72.6	68.8	76.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1974	72.0	68.2	75.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1973	71.4	67.6	75.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1972[7]	71.2	67.4	75.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1971	71.1	67.4	75.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1970	70.8	67.1	74.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1969	70.5	66.8	74.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

See footnotes at end of table.

Table 19. Estimated life expectancy at birth, in years, by Hispanic origin and race and sex: Death-registration states, 1900–1928, and United States, 1929–2020—Con.

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

Area and year	All races and origins			Hispanic[1]			Non-Hispanic American Indian or Alaska Native[1]			Non-Hispanic Asian[1]			Non-Hispanic Black[1,2]			Non-Hispanic White[1]		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both Sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
United States[3]—Con.							Bridged race[4]—Con.											
1968.	70.2	66.6	74.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1967.	70.5	67.0	74.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1966.	70.2	66.7	73.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1965.	70.2	66.8	73.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1964.	70.2	66.8	73.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1963[8].	69.9	66.6	73.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1962[8].	70.1	66.9	73.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1961.	70.2	67.1	73.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1960.	69.7	66.6	73.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1959.	69.9	66.8	73.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1958.	69.6	66.6	72.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1957.	69.5	66.4	72.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1956.	69.7	66.7	72.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1955.	69.6	66.7	72.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1954.	69.6	66.7	72.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1953.	68.8	66.0	72.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1952.	68.6	65.8	71.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1951.	68.4	65.6	71.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1950.	68.2	65.6	71.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1949.	68.0	65.2	70.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1948.	67.2	64.6	69.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1947.	66.8	64.4	69.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1946.	66.7	64.4	69.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1945.	65.9	63.6	67.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1944.	65.2	63.6	66.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1943.	63.3	62.4	64.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1942.	66.2	64.7	67.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1941.	64.8	63.1	66.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1940.	62.9	60.8	65.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1939.	63.7	62.1	65.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1938.	63.5	61.9	65.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1937.	60.0	58.0	62.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1936.	58.5	56.6	60.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1935.	61.7	59.9	63.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1934.	61.1	59.3	63.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1933.	63.3	61.7	65.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1932.	62.1	61.0	63.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1931.	61.1	59.4	63.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1930.	59.7	58.1	61.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1929.	57.1	55.8	58.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Death-registration states																		
1928.	56.8	55.6	58.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1927.	60.4	59.0	62.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1926.	56.7	55.5	58.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1925.	59.0	57.6	60.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1924.	59.7	58.1	61.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1923.	57.2	56.1	58.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1922.	59.6	58.4	61.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1921.	60.8	60.0	61.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1920.	54.1	53.6	54.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1919.	54.7	53.5	56.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1918.	39.1	36.6	42.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1917.	50.9	48.4	54.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

See footnotes at end of table.

Table 19. Estimated life expectancy at birth, in years, by Hispanic origin and race and sex: Death-registration states, 1900–1928, and United States, 1929–2020—Con.

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

Area and year	All races and origins			Hispanic[1]			Non-Hispanic American Indian or Alaska Native[1]			Non-Hispanic Asian[1]			Non-Hispanic Black[1,2]			Non-Hispanic White[1]		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both Sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Death-registration states—Con.							Bridged race[4]—Con.											
1916.	51.7	49.6	54.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1915.	54.5	52.5	56.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1914.	54.2	52.0	56.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1913.	52.5	50.3	55.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1912.	53.5	51.5	55.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1911.	52.6	50.9	54.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1910.	50.0	48.4	51.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1909.	52.1	50.5	53.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1908.	51.1	49.5	52.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1907.	47.6	45.6	49.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1906.	48.7	46.9	50.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1905.	48.7	47.3	50.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1904.	47.6	46.2	49.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1903.	50.5	49.1	52.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1902.	51.5	49.8	53.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1901.	49.1	47.6	50.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1900.	47.3	46.3	48.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

… Category not applicable.

--- Data not available.

[1]Life tables are based on death rates that have been adjusted for race and Hispanic-origin misclassification on death certificates; see Technical Notes.

[2]Before 1970, data for the Black population are not available. Data shown for 1900–1969 are for the non-White population. See Technical Notes.

[3]Includes Alaska in 1959 and Hawaii in 1960.

[4]Life expectancies by single-race categories are not completely comparable with life expectancies by bridged-race categories and should be interpreted accounting for the change from bridged-race to single-race categories.

[5]Life expectancies for 2001–2020 were calculated using a revised methodology described in Technical Notes.

[6]Life expectancies for 2001–2009 have been re-estimated using new intercensal population estimates and may differ from data previously published; see Technical Notes.

[7]Deaths based on a 50% sample.

[8]Figures by race exclude data for residents of New Jersey; see Technical Notes.

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

Technical Notes

The life table program

Two series of complete life tables for the U.S. population are prepared by the National Center for Health Statistics (NCHS). Decennial life tables are based on decennial U.S. census data and final deaths for a 3-year period around the census year. Annual final life tables (referred to here as "annual life tables") are based on a complete count of all reported deaths.

Available since 1945, the annual life tables are based on deaths occurring during the calendar year and on midyear postcensal population estimates provided by the U.S. Census Bureau. From 1945 through 1996, the annual life tables were abridged life tables, closed at age 85 and over, and were constructed by reference to a standard table (4). Beginning with 1997 mortality data, a new methodology similar to that of the 1989–1991 decennial life tables was used to estimate annual complete life tables to age 100, with combined life table values presented for ages 100 and over (16). The methodology was again revised for data years 2000–2007 using a methodology similar to that of the 1999–2001 decennial life tables (17). Beginning with data year 2008, the life table methodology was refined by changing the smoothing technique used to estimate the life table functions at the oldest ages (18).

The methodology used to estimate the 2008–2020 life tables is different from that used to estimate the 2000–2007 life tables with respect to the technique used to estimate the probabilities of death for ages over 65. The methodology used to produce the life tables for 2008–2020 does not model the probabilities of death beginning at age 66, as was done for data years 2000–2007, but rather at ages above 85 or so. (The exact ages at which smoothing techniques are used depends on the specific racial and ethnic population.) Research into the methodology developed and used for the 1999–2001 decennial life tables and applied to the annual life tables has revealed that it is not necessary to model (or smooth) the probabilities of death beginning at age 66. The observed blended vital statistics and Medicare data for ages 66–85 are robust enough to not require additional smoothing (18). A full description of the methodology used to estimate the 2020 life tables is provided below. See "United States Life Tables, 2005" (17) for a detailed description of the methodology used for data years 2000–2007.

Beginning with 2006 mortality data, life tables by Hispanic origin and race, including Hispanic, non-Hispanic Black and non-Hispanic White, were added to the annual life table program. Before this time, concerns over data limitations such as racial and ethnic misclassification on U.S. death certificates, and lack of Medicare data for older populations other than the White and Black populations (regardless of Hispanic origin), prevented the estimation of life tables for the Hispanic-origin population. Recent research that identified and quantified these data limitations has resulted in reliable methodological strategies to address these data problems (8–10,19). Beginning with 2019 mortality data, the annual life table program was expanded to include the non-Hispanic American Indian or Alaska Native (AIAN) and non-Hispanic Asian populations.

Revised intercensal life table values

Life table values for 1960–1969, 1970–1979, and 1980–1989 were constructed using the U.S. decennial life tables for 1959–1961, 1969–1971, and 1979–1981, respectively, as the standard tables. The life table values for years before 1989 appearing in this report are based on revised intercensal estimates of the populations for those years. As a result, the life table values for these years may differ from the life table values for the years published in Vital Statistics of the United States for 1989 and earlier (https://www.cdc.gov/nchs/products/vsus.htm).

Life table values for 1991–1999 presented in this report are based on postcensal population estimates enumerated in the 1990 decennial census. Life table values for 2001–2009 presented in this report are based on revised intercensal population estimates based on the 2010 decennial census and the revised methodology used to estimate the 2008–2020 life tables. As a result, the values may differ from those previously published in annual final mortality and life table reports. The revised intercensal life tables for 2001–2009 can be accessed by links provided under each of the annual life table reports at: https://www.cdc.gov/nchs/products/life_tables.htm.

Geographic coverage

The geographic areas covered in life tables before 1929–1931 were limited to death-registration areas. Life tables for 1900–1902 and 1909–1911 were constructed using mortality data from the 1900 death-registration states (10 states and District of Columbia [D.C.]), and tables for 1919–1921 used mortality data from the 1920 death-registration states (34 states and D.C.). The tables for 1929–1931 through 1958 cover the coterminous United States. Decennial life table values for the 3-year period 1959–1961 were calculated from data that include both Alaska and Hawaii for each year. Data for each year shown in Table 19 include Alaska beginning in 1959 and Hawaii beginning in 1960. However, the inclusion of these two states does not materially affect life table values.

New Jersey data, 1962–1964

The life tables for 1962 and 1963 for the six population groups involving race do not include data from New Jersey, which omitted the item on race from its certificates of live birth, death, and fetal death in use at the beginning of 1962. The item was restored during the latter part of 1962. However, the certificate revision without this item was used for most of 1962, as well as for 1963. For computing vital rates, populations by age, race, and sex (excluding New Jersey) were estimated to obtain comparable denominators. About 7% 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 proportionally to either "White" or "Black."

Nonresidents

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

Data for calculating life table functions

The data used to prepare the U.S. life tables include final death counts from the National Vital Statistics System (NVSS), population estimates from the U.S. Census Bureau, and death and population counts for Medicare beneficiaries aged 66–99 from the Centers for Medicare & Medicaid Services (CMS).

Vital statistics data

Death counts used for computing the life tables presented in this report are final numbers of deaths for 2020 collected from death certificates filed in state vital statistics offices and reported to NCHS as part of NVSS. Hispanic origin and race are reported separately on the death certificate.

Beginning with the 2018 data year, all 50 states and D.C. reported deaths based on the 2003 revision of the U.S. Standard Certificate of Death for the entire year (20). The revision is based on the 1997 Office of Management and Budget (OMB) standards (5). The 1997 standards allow people to report more than one race and increased the race choices from four to five by separating the Asian and Pacific Islander groups. The Hispanic category did not change, remaining consistent with previous reports.

The Hispanic-origin and race groups in this report follow the 1997 standards and differ from the race categories used in previous reports. The new categories are Hispanic, non-Hispanic single-race AIAN, non-Hispanic single-race Asian, non-Hispanic single-race Black, and non-Hispanic single-race White. From 2003 through 2017, some deaths were reported using the 1989 certificate revision that allowed the reporting of only one race (6). During those years, multiple-race data were bridged to single-race categories. Use of the bridged-race process was discontinued in 2018 when all states collected data on race according to 1997 OMB guidelines for the full data year. The Hispanic-origin category was not affected by the revised standards.

Census population data

The population data used to estimate the life tables shown in this report are postcensal population estimates based on the 2010 decennial census and are available from the Census Bureau website at https://www.census.gov/programs-surveys/popest/technical-documentation/research/evaluation-estimates/2020-evaluation-estimates/2010s-national-detail.html. Reflecting the 1997 OMB guidelines on race and ethnicity reporting, the 2010 census included an option for people to report more than one race and provided for the reporting of Asian people separately from Native Hawaiian or Other Pacific Islander people (5).

To produce death rates for 2000–2017, the reported population data for multiple-race people had to be bridged back to single-race categories. Additionally, the 2010 census counts were modified for consistency with the 1977 OMB race categories, that is, to report the data for Asian people and Native Hawaiian or Other Pacific Islander people as a combined category (Asian or Pacific Islander) and to reflect age as of the census reference date (6). The procedures used to produce the bridged populations are described elsewhere (21).

Medicare data

Medicare data have traditionally been used to estimate U.S. decennial life tables, and U.S. annual life tables since 1997 (16). Medicare data are considered more accurate than vital statistics and census data at the oldest ages because Medicare enrollees must have proof of age to enroll (22,23). However, the reliability of Medicare data beyond age 100 declines because of the small percentage of people who enrolled at the start of the Medicare program in 1965 and for whom it was not possible to verify exact age (22,23). Additionally, the Medicare race and ethnicity classification system makes it impossible to correctly identify the Hispanic, AIAN, Asian, or Native Hawaiian or Other Pacific Islander populations (23). It is, however, possible to use Medicare data to estimate old-age mortality for both the White and Black race groups, regardless of Hispanic origin, as has been done traditionally, and to estimate old-age mortality for the non-Hispanic segments of these populations (18). As a result, data from the Medicare program are used to supplement vital statistics and census data for ages 66–99 for the total population and the non-Hispanic Black and non-Hispanic White populations presented here (18).

To estimate death rates for the Medicare total, non-Hispanic Black, and non-Hispanic White populations in 2020, age-specific numbers of deaths and population counts by sex and race for the population aged 66–99 from the 2020 Medicare file were used. CMS creates this data file for the Social Security Administration, which shares the data with NCHS under a special agreement. The 2020 file contains 2020 midyear Medicare population counts (June 30, 2020) and calendar-year Medicare death counts (January 1 through December 31, 2020). Age for both deaths and midyear population counts is calculated as age at last birthday.

Preliminary adjustment of the data

Adjustments for unknown age

An adjustment is made to account for the small proportion of deaths each year for which age is not reported on the death certificate. The number of deaths in each age category is adjusted proportionally to account for those with not-stated ages. The following factor (F) is used to make the adjustment. F is calculated for the total and for each sex group within a racial and ethnic population for which life tables are constructed:

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

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

Table I. Values for *F* used to adjust for not-stated age based on 2020 mortality data

Race, Hispanic origin, and sex	Total deaths	Total deaths for which age was not stated	*F*
Total	3,383,729	116	1.00003428
Male	1,769,884	79	1.00004464
Female	1,613,845	37	1.00002293
Hispanic	305,708	11	1.00003598
Male	175,585	11	1.00006265
Female	130,123	–	1.00000000
Non-Hispanic American Indian or Alaska Native	24,725	–	1.00000000
Male	13,431	–	1.00000000
Female	11,294	–	1.00000000
Non-Hispanic Asian	91,175	1	1.00001097
Male	47,699	1	1.00002096
Female	43,476	–	1.00000000
Non-Hispanic Black	449,213	12	1.00002671
Male	237,703	6	1.00002524
Female	211,510	6	1.00002837
Non-Hispanic White	2,484,072	43	1.00001731
Male	1,278,612	27	1.00002112
Female	1,205,460	16	1.00001327

– Quantity zero.

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

Hispanic, non-Hispanic AIAN, non-Hispanic Asian, non-Hispanic Black, and non-Hispanic White populations in 2020.

Adjustment for misclassification of Hispanic origin and race on death certificates

Two data sources were used to adjust for Hispanic-origin and race misclassification on death certificates. For the Hispanic, non-Hispanic Asian, non-Hispanic Black, and non-Hispanic White populations, the National Longitudinal Mortality Study (NLMS) was used to produce classification ratios (or correction factors) to adjust observed sex and age-specific death rates for misclassification on death certificates (8). NLMS consists of a series of Current Population Surveys (CPS) (1979–2011) linked to vital statistics mortality data through the National Death Index (NDI) (8). For the non-Hispanic AIAN population, an extract of the 2010 Census Edited File (CEF)–Census Unedited File (CUF) Match File containing records for people classified as AIAN alone or in combination with another race in the 2010 decennial census was linked to NDI to identify decedents for April 1, 2010, to December 31, 2011. The resulting 34,366 CEF–CUF Match AIAN Extract–Mortality Linked Data decedent records were used to estimate classification ratios to correct for race and Hispanic-origin misclassification on death certificates for the AIAN population (11).

The classification ratios consist of a comparison of self-reported Hispanic origin and race on CPS or the decennial census, with Hispanic origin and race reported on the death certificates of the samples of decedents in NLMS who died during 1999–2011 and decedents in the CEF–CUF Match AIAN Extract who died between April 1, 2010, and December 31, 2011 (8,11). Linked records are used to estimate sex–age-specific ratios of survey

or census Hispanic-origin and race counts to death certificate counts (8,11).

The survey or census death certificate ratio, or "classification ratio," is the ratio of the count (weighted in the case of CPS) of self-reported race and ethnicity on the survey or census to the count (weighted in the case of CPS) of the same racial or ethnic category on the death certificates of the sample of NLMS (CEF–CUF Match AIAN Extract) decedents described previously. It can be interpreted as the net difference in assignment of a specific Hispanic-origin and race category between the two classification systems and can be used as a correction factor for Hispanic-origin and race misclassification (8,10). It is assumed that the race and ethnicity reported by a survey or census respondent is more reliable than proxy reporting of race and ethnicity by a funeral director who has little personal knowledge of the decedent. The 1997 OMB standards also mandate that self-identification should be the standard used for the collection and recording of race and ethnicity information (5).

Classification ratios discussed previously are used to adjust the age-specific number of deaths for ages 1–95 and over for the total Hispanic, non-Hispanic AIAN, non-Hispanic Asian, non-Hispanic Black, and non-Hispanic White populations, and by sex for each group, as follows:

$$_nD_x = {_nD_x^F} \cdot {_nCR_x} \qquad [2]$$

where $_nD_x^F$ is the age-specific number of deaths adjusted for unknown age as described previously, $_nCR_x$ are the sex- and age-specific classification ratios used to correct for the misclassification of Hispanic origin and race on death certificates, and $_nD_x$ are the final age-specific counts of death adjusted for age and Hispanic-origin and race misclassification. Table II shows values of the sex- and age-specific classification ratios, $_nCR_x$, by Hispanic origin and race.

Because classification ratios for infant deaths are unreliable due to small sample sizes or counts, corrections for racial and ethnic misclassification of infant deaths are addressed by using infant death counts and live birth counts from the 2019 and 2020 linked birth/infant death data files rather than the traditional birth and death data files (24,25). In the linked file, each infant death record is linked to its corresponding birth record so that the race and ethnicity of the mother reported on the birth record can be ascribed to the infant death record. As a result, race- and ethnicity-specific infant mortality rates estimated with the linked file do not have racial and ethnic discrepancies between the numerator and denominator of the rate. A ratio of infant mortality rates based on the traditional birth and death data files to infant mortality rates based on the linked birth/infant death data file shows that using the traditional files overestimates the infant mortality rate by 3.3% for Hispanic, 1.8% for non-Hispanic AIAN, and 4.7% for non-Hispanic Black infants; and underestimates the infant mortality rate by 22.2% for non-Hispanic Asian and by 2.7% for non-Hispanic White infants (see ratios for age 0 in Table II). Because the probability of death at age 0 used to calculate the life table uses live births in the denominator (procedure described in the following section, "Calculation of q_x at age 0"), it is preferable to use the linked birth/infant death data file.

Table II. Classification ratios, by Hispanic origin and race, age, and sex

Age (years)	Hispanic			Non-Hispanic American Indian or Alaska Native			Non-Hispanic Asian[1]			Non-Hispanic Black			Non-Hispanic White		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
All ages	1.0329	1.0362	1.0294	1.3354	1.3488	1.3197	1.0331	1.0480	1.0117	1.0047	1.0041	1.0053	0.9995	0.9993	0.9997
0[2]	1.0426	1.0552	1.0284	0.9518	0.9654	0.9327	0.7472	0.7611	0.7305	1.0454	1.0479	1.0414	0.9751	0.9706	0.9809
1–14...........	0.9905	0.9659	*1.0299	1.1243	1.1546	1.0833	*0.8655	*0.8426	*1.0000	1.0266	0.9379	*1.1751	0.9918	1.0755	0.8770
15–24..........	0.9668	0.9325	1.0604	1.1462	1.1201	1.2190	1.2285	*1.4276	*0.9721	1.0248	1.0215	1.0343	0.9976	1.0019	0.9869
25–34..........	1.0354	1.0401	1.0232	1.1375	1.1557	1.1033	1.1527	1.0967	*1.2648	0.9855	0.9770	1.0008	1.0021	1.0034	0.9994
35–44..........	1.0434	1.0645	1.0066	1.1799	1.1815	1.1772	1.0338	1.0459	1.0125	1.0062	1.0073	1.0048	0.9980	0.9997	0.9951
45–54..........	1.0584	1.0372	1.0953	1.3915	1.3913	1.3916	1.0699	1.1123	1.0113	1.0002	1.0019	0.9982	0.9969	0.9965	0.9976
55–64..........	1.0571	1.0517	1.0659	1.4281	1.4547	1.3917	1.0274	1.0694	0.9784	1.0003	0.9965	1.0046	0.9994	0.9992	0.9997
65–74..........	1.0295	1.0485	1.0072	1.3654	1.4244	1.2980	1.0845	1.0841	1.0850	1.0062	1.0055	1.0070	0.9967	0.9967	0.9966
75–84..........	1.0192	1.0188	1.0196	1.3099	1.3367	1.2852	1.0305	1.0328	1.0281	1.0057	1.0057	1.0058	1.0004	1.0003	1.0004
85–94..........	1.0208	1.0313	1.0137	1.3845	1.3807	1.3870	0.9962	0.9983	0.9944	1.0110	1.0155	1.0086	1.0008	1.0007	1.0009
95 and over	1.0732	1.0509	1.0842	1.3951	1.3043	1.4240	0.9755	1.0238	0.9405	0.9980	0.9872	0.9954	1.0005	0.9995	1.0008

* Ratio does not meet National Center for Health Statistics standards of reliability; either the unweighted number of Current Population Survey deaths, the unweighted number of death certificate deaths, or both are based on fewer than 20 deaths.
[1]Classification ratios for the non-Hispanic Asian population were estimated based on data for the non-Hispanic Asian and Pacific Islander populations combined due to data availability. However, the ratios reflect misclassification predominantly among the non-Hispanic Asian population because it makes up more than 95% of the non-Hispanic Asian and Pacific Islander populations combined.
[2]Ratios for age 0 are estimated as the ratio of infant mortality rates based on the traditional death and birth files to the infant mortality rates based on the 2020 linked birth/infant death data file. They are shown only for illustrative purposes; see report text for details.
SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

Interpolation of P_x and D_x

Anomalies—both random and those associated with reporting age at death—can be problematic when using vital statistics and census data by single years of age to estimate the probability of death (1,3). Graduation techniques are often used to eliminate these anomalies and to derive a smooth curve by age. Beers' ordinary minimized fifth difference formula is used to obtain smoothed values of population counts (P_x) and death counts (D_x) from 5-year age groupings of $_nP_x$ from age 0 to 99 and $_nD_x$ from age 5 to 99, and where $_nD_x$ has first been adjusted for not-reported age and Hispanic-origin and race misclassification on the death certificate (see reference 16 for details on the application of Beers' method).

Calculation of the probability of dying (q_x)

The first step in the calculation of a complete period life table is the estimation of the age-specific probability of dying, q_x, which is derived from the age-specific death rate, m_x (3,20). In the life table cohort,

$$m_x = \frac{d_x}{L_x}$$

where d_x is the number of deaths occurring between ages x and $x + 1$, and L_x is the number of person-years lived by the life table cohort between ages x and $x + 1$. The conversion of the age-specific death rate, m_x, to the age-specific probability of death, q_x, is:

$$q_x = \frac{m_x}{1 + (1 - a_x)m_x} \quad [3]$$

where a_x is the fraction of the number of person-years lived in the age interval by members of the life table cohort who died in

the interval. When the age interval is 1 year, except at infancy, $a_x = 1/2$; in other words, deaths occur on average midway through the age interval. As a result,

$$q_x = \frac{m_x}{1 + \frac{1}{2}m_x} \quad [4]$$

Because the complete period life table is based on the age-specific death rates of a current population observed for a specific calendar year, the life table death rate is equivalent to the observed death rates of the current population:

$$m_x = \frac{d_x}{L_x} = M_x = \frac{D_x}{P_x}$$

where D_x is the Beers' smoothed number of deaths adjusted for not-stated age and Hispanic-origin and race misclassification on the death certificate (for the Hispanic, non-Hispanic AIAN, non-Hispanic Asian, non-Hispanic Black, and non-Hispanic White populations), and P_x is the Beers' smoothed population at risk of dying between ages x and $x + 1$. Then,

$$q_x = \frac{M_x}{1 + \frac{1}{2}M_x} = \frac{D_x}{P_x + \frac{1}{2}D_x} \quad [5]$$

This procedure is used to estimate vital statistics age-specific probabilities of death for ages 1–99.

Calculation of q_x at age 0

The higher mortality observed in infancy is associated with a high concentration of deaths occurring at the beginning of the age interval rather than in the middle. As a result, it is best to assign deaths to the appropriate birth cohorts whenever possible. Consequently, the probability of death at birth, q_0, is calculated

using a birth cohort method that uses a separation factor (f) defined as the proportion of infant deaths in year t occurring to infants born in the previous year ($t-1$). The value f is estimated by categorizing infant deaths by date of birth. The probability of death is then calculated as:

$$q_0 = \frac{D_0(1-f)}{B^t} + \frac{D_0(f)}{B^{t-1}} \qquad [6]$$

where D_0 is the number of infant deaths adjusted for not-stated age in 2020, B^t is the number of live births in 2020, and B^{t-1} is the number of live births in 2019. Table III shows separation factors and numbers of births for 2019 and 2020.

Probabilities of dying at the oldest ages for the total, non-Hispanic Black, and non-Hispanic White populations

Medicare data are used to supplement vital statistics data for the estimation of q_x at the oldest ages because these data are more accurate, since proof of age is required for enrollment in the Medicare program. Medicare data are used here to estimate the probability of dying for ages 66 and over for the total, non-Hispanic Black, and non-Hispanic White populations.

The method described in this section has the following steps: First, vital statistics and Medicare death rates are blended in the age range 66–99. Second, a logistic model is used to smooth the blended death rates in the age range 85–99 and predict death rates for ages 100–120. Third, final resulting death rates, M_x, are converted to q_x.

For ages 66–94, vital statistics death rates, M_x^V, and Medicare death rates, M_x^M, are blended with a weighting process that gives gradually declining weight to vital statistics data and gradually increasing weight to Medicare data. For ages 95–99, M_x^M is used exclusively. The blended M_x is obtained as follows:

$$M_x = \frac{1}{30}[(95-x)M_x^V + (x-65)M_x^M] \qquad [7]$$

when $x = 66,...,94$ and

$$M_x = M_x^M$$

when $x = 95,...,99$. M_x^M is estimated as:

$$M_x^M = \frac{D_x^M}{P_x^M}$$

where D_x^M is the age-specific Medicare death count, and P_x^M is the age-specific Medicare midyear population count.

A logistic model proposed by Kannisto is then used to smooth M_x in the age range 85–99 and predict M_x in the age range 100–120 (26). The start of the modeled age range varies by race- and ethnicity-specific population because it is a function of the age at which the rate of change in the age-specific death rates peaks. Currently, the rate of change in the age-specific death rate rises steadily up to about ages 80–85 and then begins to decline. As a result, it is difficult to model a large age span, such as 65–100, with one simple model without over smoothing and

consequently altering the underlying mortality pattern observed in the population of interest (27). Moreover, the observed data for age range 65–85 or so is reliable and robust, as indicated by the very close similarity between vital statistics and Medicare death rates, so it is unnecessary to model (smooth) the entire age span (65–100).

The Kannisto model is a simple form of a logistic model in which the logit of u_x (or the natural log of the odds of u_x) is a linear function of age, x (26). It is expressed as:

$$\ln\left[\frac{u_x}{1-u_x}\right] = \ln(\alpha) + \beta x \qquad [8]$$

where u_x, the force of mortality (or the instantaneous death rate), is defined as:

$$u_x = \frac{\alpha e^{\beta x}}{1+\alpha e^{\beta x}}$$

Because u_x is not directly observed but is closely approximated by m_x, and $m_x = M_x$, then the logit of M_x is modeled instead. A maximum-likelihood generalized linear model estimation procedure is used to fit the following model in the age range 85–99:

$$\ln\left[\frac{M_x}{1-M_x}\right] = \ln(\alpha) + \beta x \qquad [9]$$

Then, the estimated parameters are used to predict $\bar{M}_x$ as:

$$\bar{M}_x = \frac{e^a e^{bx}}{1+e^a e^{bx}} \text{ or, equivalently, } \bar{M}_x = \frac{e^{a+bx}}{1+e^{a+bx}} \qquad [10]$$

where a and b are the predicted values of parameters $\ln(\alpha)$ and β, respectively, given by fitting model [9]. Estimated parameters and the starting age for the modeled age span by population in 2020 are presented in Table IV.

Finally, the predicted probability of death, $\bar{q}_x$, for ages 85–120 is estimated by converting $\bar{M}_x$ as:

$$\bar{q}_x = \frac{\bar{M}_x}{1+\frac{1}{2}\bar{M}_x} \qquad [11]$$

The probability of death is extrapolated to age 120 to estimate the life table population until no survivors remain. This information is then used to estimate L_x for ages 100–120, which is used to close the table with the age category 100 and over, combined (discussed in the following section).

Probabilities of dying at the oldest ages for the Hispanic, non-Hispanic AIAN, and non-Hispanic Asian populations

As previously noted, Medicare data are unreliable for the Hispanic, non-Hispanic AIAN, and non-Hispanic Asian populations due to inconsistencies in the Medicare race and ethnicity classification system. As a result, other methods had to be used to estimate mortality at the oldest ages for these populations. Beyond age 80, mortality estimates based strictly on vital statistics for the Hispanic, non-Hispanic AIAN, and

Table III. Births in 2019 and 2020, deaths in 2020 of infants born in 2019 and 2020, and separation factors, by Hispanic origin and race and sex: United States

Births, deaths, and separation factors	Total			Hispanic			Non-Hispanic American Indian or Alaska Native			Non-Hispanic Asian			Non-Hispanic Black			Non-Hispanic White		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Births																		
2019.	3,747,540	1,917,446	1,830,094	886,467	452,492	433,975	28,450	14,500	13,950	238,769	123,806	114,963	548,075	278,494	269,581	1,915,912	981,620	934,292
2020.	3,613,647	1,848,092	1,765,555	866,713	441,401	425,312	26,813	13,779	13,034	219,068	112,795	106,273	529,811	269,341	260,470	1,843,432	945,464	897,968
Deaths in 2020 of infants born in:																		
2019.	2,526	1,401	1,125	483	271	213	41	28	13	69	38	31	787	432	352	1,006	554	459
2020.	17,056	9,458	7,598	3,580	1,972	1,607	165	88	77	619	336	282	4,714	2,588	2,129	7,109	3,951	3,152
Separation factor, f	0.129	0.129	0.129	0.119	0.121	0.117	0.199	0.241	0.143	0.101	0.102	0.100	0.143	0.143	0.142	0.124	0.123	0.127

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

Table IV. Estimated parameters α and β used for predicting m_x and starting age of modeled age span: United States, 2020

Parameter	Total			Non-Hispanic Black			Non-Hispanic White		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Starting age	86	86	86	85	84	85	86	86	86
$\ln(\alpha)$ (standard error)	-14.08974 (0.068)	-14.10801 (0.091)	-14.69938 (0.083)	-11.36441 (0.206)	-10.85648 (0.142)	-12.36112 (0.233)	-14.36986 (0.080)	-14.60056 (0.094)	-14.93526 (0.095)
β (standard error)	0.1390606 (0.001)	0.1413027 (0.001)	0.1446144 (0.001)	0.1092211 (0.002)	0.1059595 (0.002)	0.1191658 (0.003)	0.1423433 (0.001)	0.1469600 (0.001)	0.1473879 (0.001)

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

non-Hispanic Asian populations are too low, despite correction for ethnic misclassification on the death certificate.

A consistent finding across diverse studies has been that Hispanic mortality in the adult and advanced ages varies between about 80% and 89% relative to that of the non-Hispanic White population (19,28,29). The Brass relational logit model takes advantage of the relationship between Hispanic and non-Hispanic White mortality previously identified and has been widely and successfully used to predict the mortality of one population relative to another at the older ages (30,31). Using the age-specific mortality pattern of the non-Hispanic White population as the standard, the Brass relational logit model is used to predict Hispanic mortality in the older ages. The standard is fit to Hispanic data in the age interval 45–80, and the predicted parameters are used to estimate the probabilities of death for ages 76–100. This method allows the relationship between the two populations in the younger ages to be extended to the older ages (19,30,31).

Although similar information is not available for the non-Hispanic AIAN and non-Hispanic Asian populations, with a slight modification, the Brass relational logit model was successfully used to produce reliable complete period life tables for the non-Hispanic AIAN population in Indian Health Service Contract Health Service Delivery Area counties (32). The choice of the non-Hispanic White population as the standard population is based on several factors. First, it is the most widely used comparison population in the study of racial and ethnic disparities given its social and economic privilege. Second, it is the largest population in the United States and has the most reliable mortality data. Third, the relationship between the age-specific mortality patterns of the non-Hispanic AIAN and non-Hispanic Asian populations and the non-Hispanic White population remains constant throughout the age span 45–80 (45–84 for the non-Hispanic AIAN population). The assumption that this pattern continues to the oldest ages is reasonable because the final results are consistent with expected age-specific mortality patterns at the oldest ages (Figures I and II).

The Brass relational logit model expresses the age-specific mortality pattern of a population of interest as a function of the age-specific mortality pattern of a standard population and is expressed as:

$$\overline{Y}_x = \alpha + \beta Y_x^S \qquad [12]$$

where $\overline{Y}_x$ is the predicted logit of the probability of death, q_x, in the population of interest, that is,

$$\text{logit}\,[q_x] = \ln\!\left[\frac{q_x}{1-q_x}\right]$$

Y_x^S is the logit of the probability of death in the standard population, q_x^S, that is,

$$\text{logit}\,[q_x^S] = \ln\!\left[\frac{q_x^S}{1-q_x^S}\right]$$

α is the predicted parameter that measures the level of mortality of the population of interest relative to the standard population, and β is the predicted parameter that measures the slope of the mortality function of the population of interest relative to the standard population (3,19,31). Table V shows values of predicted α and β and their standard errors.

A maximum-likelihood generalized linear-model estimation procedure was used to fit equation [12] in the age range 45–80 (45–84 for the non-Hispanic AIAN population). The resulting predicted parameters α and β were then used to estimate the predicted probability of death for ages 76–120 (80–120 for the non-Hispanic AIAN population). The value q_x was predicted to age 120 to estimate the life table population until no survivors remain, as was done for the other population groups. This information was then used to estimate L_x for ages 100–120, which was used to close the table with the age category 100 and over, combined (discussed in the next section).

Predicted $\overline{q}_x$ is estimated by transforming its logit, $\overline{Y}_x$, back as follows:

$$\overline{q}_x = \frac{\exp[\overline{Y}_x]}{1+\exp[\overline{Y}_x]} = \frac{\exp[\alpha + \beta Y_x^S]}{1+\exp[\alpha + \beta Y_x^S]} \qquad [13]$$

To ensure a smooth transition from vital q_x^V and predicted $\overline{q}_x$, the two were blended from ages 76 to 80 (80 to 84 for the non-Hispanic AIAN population) with a graduating process as follows:

$$q_x = \frac{1}{6}[(81-x)q_x^V + (x-75)\overline{q}_x] \qquad [14]$$

when $x = 76,...,80$, and

$$q_x = \frac{1}{6}[(85-x)q_x^V + (x-79)\overline{q}_x]$$

when $x = 80,...,84$.

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

Calculation of remaining life table functions for all groups

Survivor function (l_x)

The life table radix, l_0, is set at 100,000. For ages greater than 0, the number of survivors remaining at exact age x is calculated as:

$$l_x = l_{x-1}(1 - q_{x-1}) \qquad [15]$$

Decrement function (d_x)

The number of deaths occurring between ages x and $x+1$ is calculated from the survivor function:

$$d_x = l_x - l_{x+1} = l_x q_x \qquad [16]$$

Note that $_\infty d_{100} = {}_\infty l_{100}$ because $_\infty q_{100} = 1.0$.

**Figure I. Age pattern of mortality for non-Hispanic Asian population: United States, 2020**

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.
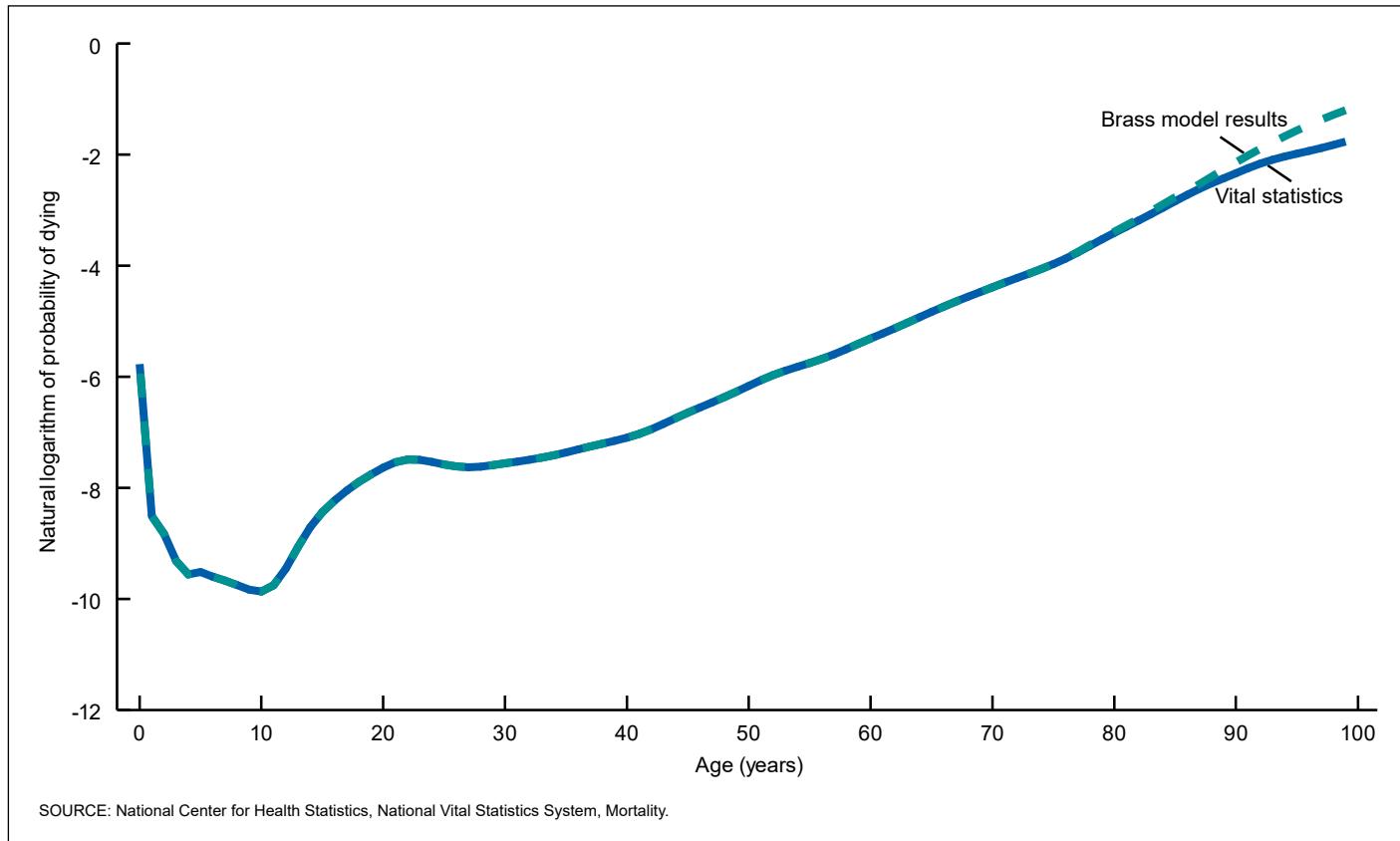
Figure II. Age pattern of mortality for non-Hispanic American Indian or Alaska Native population: United States, 2020

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.
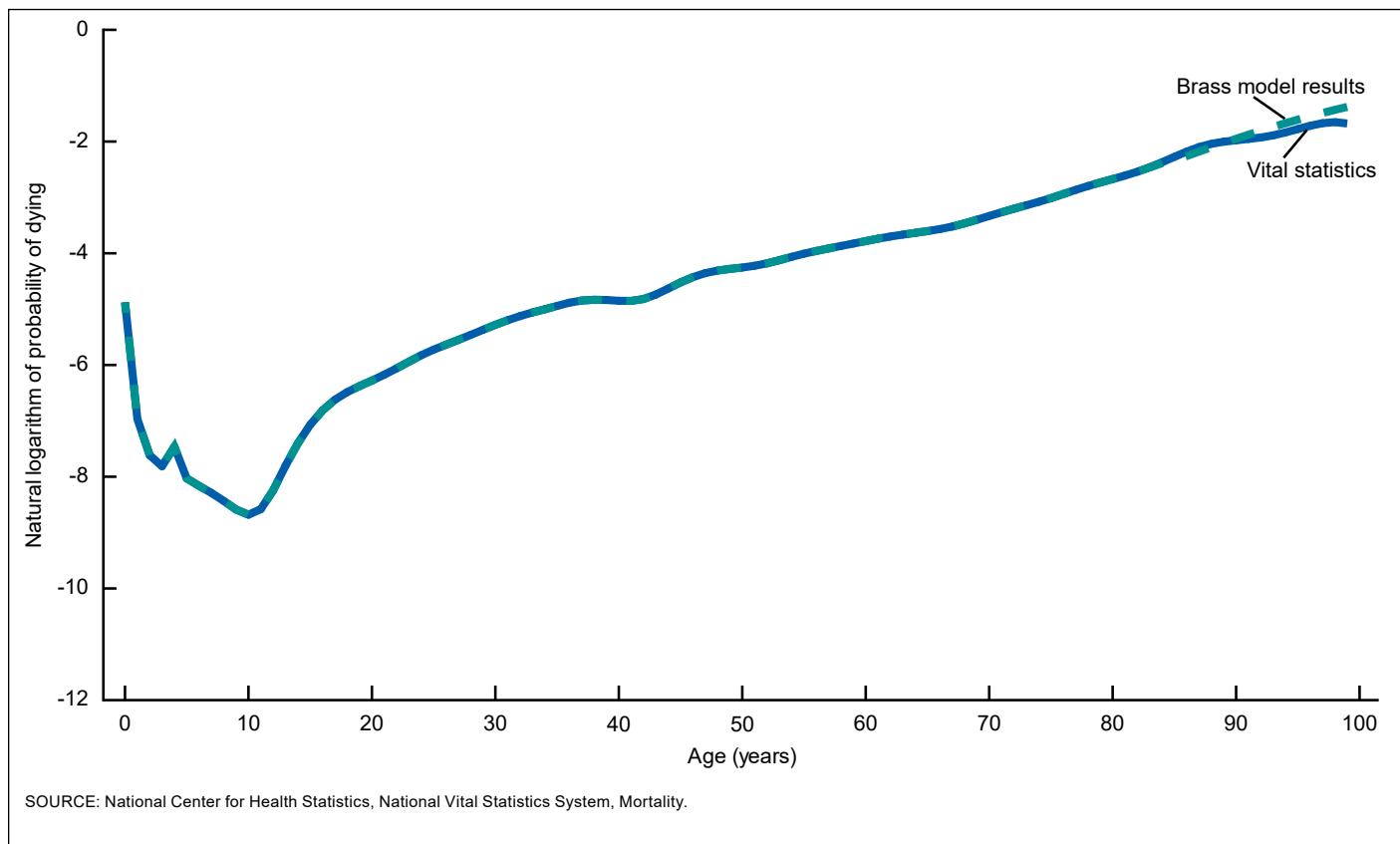
Table V. Estimated Brass relational logit model parameters α and β for the Hispanic, non-Hispanic American Indian or Alaska Native, and non-Hispanic Asian populations: United States, 2020

Parameter	Hispanic			Non-Hispanic American Indian or Alaska Native			Non-Hispanic Asian		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
α (standard error).	-0.1348726	-0.0812697	-0.0512709	-0. 6955117	-0.7924978	-0.5745143	-0.1800790	-0.2505555	-0.0915917
	(0.047)	(0.061)	(0.036)	(0.016)	(0.020)	(0.031)	(0.041)	(0.043)	(0.048)
β (standard error)	0.9717136	0.9662271	1.0134290	0.6668743	0.6270288	0.7071709	1.1049750	1.0686500	1.1412530
	(0.012)	(0.015)	(0.009)	(0.004)	(0.006)	(0.008)	(0.011)	(0.012)	(0.012)

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

Person-years lived (L_x)

Person-years lived for ages 1–99 is calculated assuming that the survivor function declines linearly between ages x and $x + 1$. This gives the formula:

$$L_x = \frac{1}{2}(l_x + l_{x+1}) = l_x - \frac{1}{2}d_x \qquad [17]$$

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

$$L_0 = fl_0 + (1 - f)l_1 \qquad [18]$$

Finally, $_\infty L_{100}$ is estimated as the sum of the extrapolated L_x values for ages 100–120.

Person-years lived at and above age x (T_x)

T_x is calculated by summing L_x values at and above age x:

$$T_x = \sum_{x=0}^{\infty} L_x \qquad [19]$$

Life expectancy at age x (e_x)

Life expectancy at exact age x is calculated as:

$$e_x = \frac{T_x}{l_x} \qquad [20]$$

Causes of death contributing to changes in life expectancy

To measure changes in mortality, a discrete method, developed by Arriaga (33,34), was used to estimate the contribution of mortality change by causes of death based on changes in life expectancy, which is described as a procedure that "estimates the number of years added to or removed from life expectation because of the decrease or increase (respectively) of the central mortality rates of life tables" (34). With this method, one can partition the change in life expectancy over time or between two separate groups of populations. In this report, Arriaga's technique is used to partition by cause of death changes in life expectancy at birth in the United States from 2019 to 2020.

The method partitions changes into component additive parts and identifies the causes of death having the greatest influence, positive or negative, on changes in life expectancy based on rankable causes of death (33,34). This method is used by NCHS annually to analyze changes in life expectancy (13).

Abridging the complete life table

An abridged or collapsed version of the complete life table can be calculated in which life table functions are shown for 5-year rather than single-year age intervals. It is often desirable to summarize the life table and save space when publishing life table data by single years of age. The abridgement of the complete life table is simplified by an important property of three of the six life table functions. The l_x, T_x, and e_x functions describe exact age x, that is, the beginning of the age interval x to $x + n$ (where n denotes the length of the age interval; for 5-year age intervals, $n = 5$). Life expectancy at age 20 (e_{20}), for example, has the same value regardless of whether the age interval is 20–21 or 20–25. Consequently, the values l_x, T_x, and e_x can be extracted at 5-year intervals from the complete life table and placed into the abridged life table (compare l_x, T_x, and e_x in Table VI with the same functions in Table 1). It is also illustrative to compare values for e_x and l_x in Tables A and B with their corresponding values presented in Tables 1–18.

The q_x, d_x, and L_x functions, in contrast, describe the age interval x to $x + n$. In fact, for abridged life tables, the notation for these functions is different ($_nq_x$, $_nd_x$, and $_nL_x$, respectively). As a result, $_5q_{20}$ the probability of dying between ages 20 and 25 and will be somewhat larger than q_{20}, the probability of dying between ages 20 and 21. Considering this, $_nq_x$, $_nd_x$, and $_nL_x$ must be recalculated in the abridged life table. It is simplest to begin with $_nd_x$. The calculations are made for all but the final age interval as:

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

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

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

Note that for the open-ended interval, ages 100 and over, $_\infty d_{100} = l_{100}$, $_\infty q_{100} = 1.0$, and $_\infty L_{100} = T_{100}$. Table VI shows each of the life table functions for the 2020 U.S. total population abridged from Table 1.

Table VI. Life table for the total population: United States, 2020

Age (years)	Probability of dying between ages x and $x + n$ $_nq_x$	Number surviving to age x l_x	Number dying between ages x and $x + n$ $_nd_x$	Person-years lived between ages x and $x + n$ $_nL_x$	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
0–1.	0.005394	100,000	539	99,530	7,699,496	77.0
1–5.	0.000837	99,461	83	397,647	7,599,966	76.4
5–10.	0.000546	99,377	54	496,742	7,202,319	72.5
10–15.	0.000820	99,323	81	496,461	6,705,577	67.5
15–20.	0.002922	99,242	290	495,585	6,209,117	62.6
20–25.	0.005425	98,952	537	493,498	5,713,532	57.7
25–30.	0.007009	98,415	690	490,411	5,220,034	53.0
30–35.	0.008896	97,725	869	486,526	4,729,623	48.4
35–40.	0.010965	96,856	1,062	481,706	4,243,098	43.8
40–45.	0.013808	95,794	1,323	475,799	3,761,392	39.3
45–50.	0.018952	94,471	1,790	468,119	3,285,593	34.8
50–55.	0.027681	92,680	2,566	457,393	2,817,474	30.4
55–60.	0.041496	90,115	3,739	441,757	2,360,081	26.2
60–65.	0.060135	86,376	5,194	419,460	1,918,324	22.2
65–70.	0.082722	81,181	6,715	389,847	1,498,864	18.5
70–75.	0.119530	74,466	8,901	351,168	1,109,017	14.9
75–80.	0.186364	65,565	12,219	298,770	757,848	11.6
80–85.	0.293289	53,346	15,646	228,886	459,079	8.6
85–90.	0.457641	37,700	17,253	145,209	230,193	6.1
90–95.	0.663070	20,447	13,558	65,518	84,983	4.2
95–100.	0.834229	6,889	5,747	17,180	19,465	2.8
100 and over	1.000000	1,142	1,142	2,285	2,285	2.0

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

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