

Abridged Life Tables for California, 2000

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Reports from prior periods are available on this subject.

Highlights

- In 2000 life expectancy at birth for the total California population was 79.0 years.
- The life expectancy of Californians was 2.1 years longer than the life expectancy of the U.S. population.
- The difference in life expectancy between California males and females was 4.7 years in 2000, a narrowing of the difference of 6.7 years in 1990.

Introduction

Life tables statistically summarize the death rates for a specific period, and they have long been used as the principal analytical tool in the study of life expectancy. There are two types of life tables: the generation or cohort life table and the current life table.

The generation life table provides a longitudinal perspective and involves the mortality experience of a group or cohort of individuals that were born during the same time period. This type of life table best reflects changing environmental conditions, but is not often used due to the practical constraints of gathering mortality data over many years.

A current life table can be characterized as "cross-sectional." Unlike the generation life table, the current life table does not represent the mortality experience of an actual cohort. This type of table considers a hypothetical cohort and assumes that it is subject to the age-specific death rates for an actual population during a particular period. In this report the term "life table" refers only to the current life table and not to the generation life table.

Life tables can also differ in the length of the age intervals used. A complete life table uses every single year of age from birth to the last applicable age. An abridged life table uses broader age intervals--generally five years. This report uses current abridged life tables for all California residents, males and females for 2000.

Life Expectancy at Birth for Total Population

Table 1 shows that in 2000 the average life expectancy at birth was 79.0 years for the total California population. Life expectancy continued the general increase that has occurred over the years presented in **Table 1**, going back to 1950. **Figure 1** shows the trend of increasing life expectancy in California for the years 1990-2000. During this time period, life expectancy increased 2.8 years.

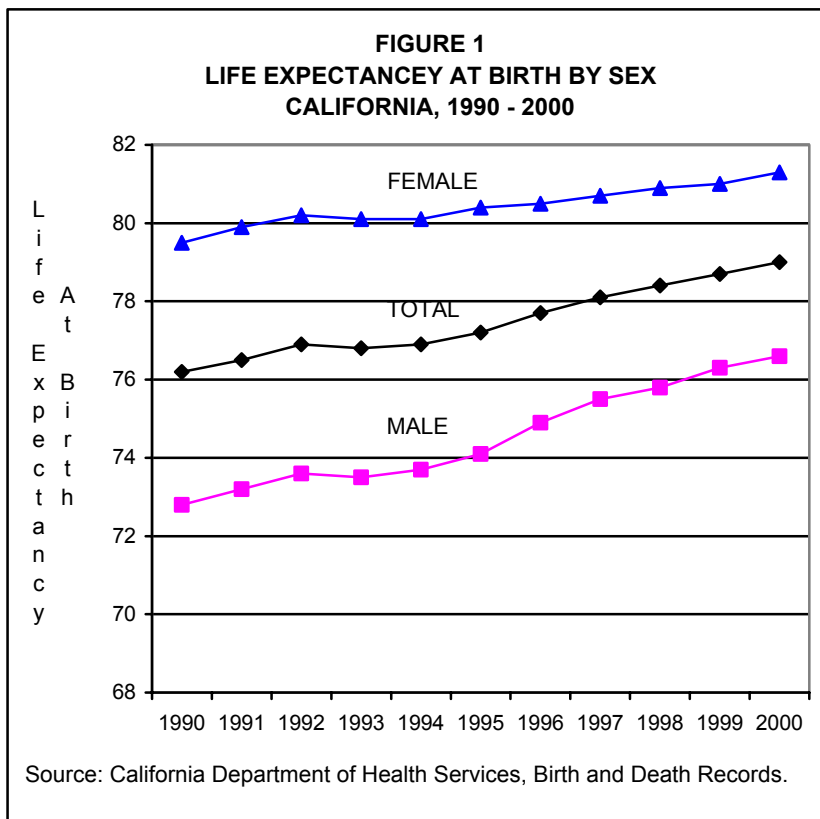
The life expectancy of Californians continues to exceed the life expectancy of the population of the United States (U.S.). In 2000, life expectancy was

79.0 years for the total California population compared with 76.9 years for that of the U.S. population as a whole (Tables 1 and 2).

Life Expectancy at Birth by Sex

Life expectancy for females in 2000 was 81.3 years. Between 1990 and 2000, life expectancy for females increased 1.8 years. Life expectancy for males was 76.6 years in 2000 with an increase of 3.8 years between 1990 and 2000. In 2000, the difference in life expectancy between

males and females was 4.7 years, a narrowing from the difference of 6.7 years in 1990 (Table 1). Figure 1 shows the increases in life expectancy for both males and females, as well as the decrease in discrepancy between the two sexes.



A description of [methods](#) is provided at the end of this report.

California's male population at birth was expected to live 2.5 years longer than the U.S. male population in 2000. California's females were expected to live 1.8 years longer than the U.S. female population in 2000 (Tables 1 and 2).

Life Expectancy at Age 65

Average years of life are often compared at 65 years of age. In 2000, a 65-year-old person living in California could expect to live an additional 19.1 years, for a total of 84.1 years. This was 0.3 years longer than in 1999 and 1.2 years longer than in 1990.

At age 65, Californians were expected to live 1.2 years longer than the U.S. population in 2000, 1.1 years longer than in 1999, and 0.7 years longer than in 1990. The average years of life remaining at age 65 in California has consistently exceeded the average years of life remaining at age 65 in the U.S. (Tables 1 and 2).

Life Expectancy at Age 65 by Sex

In 2000, California's male population at age 65 was expected to live 1.3 years longer than the U.S. male population, while California's female population was expected to live 1.2 years longer than the U.S. female population. Californians of both sexes at age 65 have exceeded their respective U.S. life expectancies for many years (Tables 1 and 2).

For more data, see DHS Center for Health Statistics Home Page at:

www.dhs.ca.gov/org/hisp/chs/chsindex.htm

Detailed Life Tables

Tables 3-5 in this report are 2000 abridged life tables for California's total, male, and female populations. These tables show more detail than **Tables 1 and 2**, with age intervals calculated in five-year increments.

Methodological Approach

A report entitled "Methodology for Calculating Life Tables for 1977" describes in detail the methodology used in constructing life tables.¹ The standard life table methodology uses Chiang's formulae and the "fraction of last year of life" adjustments to calculate the probability of death.² The methodology used for the 2000 life tables in this report follows this methodology with the exceptions that are noted in the technical notes of the report "California Life Expectancy: Abridged Life Tables For California 1990-1996."³ The 2000 population data used for the life tables in this report came from the State of California, Department of Finance.

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¹Oreglia A. *Methodology For Constructing Abridged Life Tables For California, 1977*, Data Matters, No. 81-01021, Center for Health Statistics, California Department of Health Services, January 1981.

²Chiang Chin Long. *Life Table and Mortality Analysis*, World Health Organization, 1978.

³Harms C., McKendry J. *California Life Expectancy: Abridged Life Tables For California, 1990-96*, Data Matters, No. DM98-08000, Center for Health Statistics, California Department of Health Services, August 1999.

TABLE 1
LIFE EXPECTANCY AT BIRTH
AND AVERAGE YEARS OF LIFE REMAINING AT 65
BY SELECTED YEARS AND SEX
CALIFORNIA, 1919-1941^a, 1950, 1959-61, 1969-71, 1979-81, 1990-2000

YEAR	AT BIRTH			AT 65 YEARS		
	TOTAL POPULATION	MALES	FEMALES	TOTAL POPULATION	MALES	FEMALES
2000	79.0	76.6	81.3	19.1	17.6	20.4
1999	78.7	76.3	81.0	18.8	17.3	20.1
1998	78.4	75.8	80.9	18.7	17.1	20.0
1997	78.1	75.5	80.7	18.6	17.0	20.0
1996	77.7	74.9	80.5	18.6	16.8	20.0
1995	77.2	74.1	80.4	18.5	16.7	19.9
1994	76.9	73.7	80.1	18.3	16.5	19.8
1993	76.8	73.5	80.1	18.3	16.5	19.8
1992	76.9	73.6	80.2	18.4	16.5	19.9
1991	76.5	73.2	79.9	18.1	16.2	19.7
1990	76.2	72.8	79.5	17.9	16.0	19.4
1979-81	74.8	71.3	78.3	17.1	14.9	19.0
1969-71	71.7	68.2	75.4	15.5	13.4	17.4
1959-61	70.9	67.6	74.5	15.1	13.3	16.7
1950	69.2	65.9	73.0	14.5	13.0	16.1
1939-41	NA	61.9	68.3	NA	11.8	14.4
1929-31	NA	58.6	63.7	NA	12.0 ^b	14.0 ^b
1919-20	NA	54.5	58.4	NA	12.4 ^b	13.4 ^b

^a Whites Only

^b Interpolated

NA = Not Available

Sources: 1979-81 and 1990-2000 State of California, Department of Health Services, Birth and Death Records.

1969-71 National Center for Health Statistics, U.S. Decennial Life Tables for 1969-71: California, DHEW Publication No. (HRA) 75-1151, U.S. DHEW, June 1975.

1959-61 Norris F D., Riese D C., *Abridged Life Tables, California, 1959-61*, California Department of Public Health, September 1963.

1950 Schoen R, Collens M, *Mortality by Cause: Life Tables for California, 1950-1970*. California State Department for Public Health.

1931-41 National Office of Vital Statistics, State and Regional Life Tables, 1939-41, U.S. Federal Security Agency, March 11, 1948, pp. 82-85.

1919-20 and 1929-31 Dublin, L I., et al, *Length of Life*, Ronald Press Company, New York 1949, p. 325 and 333.

State of California, Department of Finance; 1970-1996 Race/Ethnic Population Estimates by County with Age and Sex Detail, January 1998. 1997 Population: Population Estimates with Age and Sex Detail, June 1999. 1998 Population: Population Estimates with Age and Sex Detail, May 2000. 1999- 2000 Population: 1997-2040 Population Projections with Age and Sex Detail, December 1998.

TABLE 2
LIFE EXPECTANCY AT BIRTH
AND AVERAGE YEARS OF LIFE REMAINING AT 65
BY SELECTED YEARS AND SEX
UNITED STATES, 1949-51, 1959-61, 1969-71, 1979-81, 1990-2000

YEAR	AT BIRTH			AT 65 YEARS		
	TOTAL POPULATION	MALES	FEMALES	TOTAL POPULATION	MALES	FEMALES
2000	76.9	74.1	79.5	17.9	16.3	19.2
1999	76.7	73.9	79.4	17.7	16.1	19.1
1998	76.7	73.8	79.5	17.8	16.0	19.2
1997	76.5	73.6	79.4	17.7	15.9	19.2
1996	76.1	73.1	79.1	17.5	15.7	19.0
1995	75.8	72.5	78.9	17.4	15.6	18.9
1994	75.7	72.4	79.0	17.4	15.5	19.0
1993	75.5	72.2	78.8	17.3	15.3	18.9
1992	75.8	72.3	79.1	17.5	15.4	19.2
1991	75.5	72.0	78.9	17.4	15.3	19.1
1990	75.4	71.8	78.8	17.2	15.1	18.9
1979-81	73.9	70.1	77.6	16.5	14.2	18.4
1969-71	70.8	67.0	74.6	15.0	13.0	16.8
1959-61	69.9	66.8	73.2	14.4	13.0	15.8
1949-51	68.1	65.5	71.0	13.8	12.7	15.0

Note: Prior to 1970 includes deaths of nonresidents of the United States.

Sources: 1949-1998 Data: National Center for Health Statistics, United States Life Tables, 1998, Vol. 48, No.18, Tables 11 and 12, February 2001 and National Center for Health Statistics, Health, United States, 2000 With Adolescent Health Chartbook, July 2000.
1999 Data: National Vital Statistics Reports, Deaths: Final Data for 1999, Volume 49, Number 8, Tables 6 and 7, September 2001.
2000 Data: National Vital Statistics Reports, Deaths: Preliminary Data for 2000, Volume 49, Number 12, October 2001.

**TABLE 3
ABRIDGED LIFE TABLE
FOR TOTAL POPULATION
CALIFORNIA, 2000**

AGE INTERVAL	PROPORTION DYING			OF 100,000 BORN ALIVE		STATIONARY POPULATION		AVERAGE REMAINING LIFETIME
	Uncorrected	Correction Term	Corrected	Number Living at Beginning of Age Interval	Number Dying During Age Interval	In the Age Interval	In This And All Subsequent Age Intervals	Average Remaining Years of Life
0-1	-	0.17408	0.00543	100,000	543	99,552	7,901,796	79.02
1-5	0.00026	0.41400	0.00103	99,457	102	397,589	7,802,244	78.45
5-10	0.00012	0.45479	0.00061	99,355	61	496,609	7,404,655	74.53
10-15	0.00018	0.56195	0.00090	99,294	89	496,275	6,908,046	69.57
15-20	0.00054	0.58546	0.00269	99,205	266	495,472	6,411,771	64.63
20-25	0.00079	0.49057	0.00392	98,939	388	493,705	5,916,298	59.80
25-30	0.00076	0.48290	0.00380	98,551	374	491,787	5,422,593	55.02
30-35	0.00088	0.52441	0.00441	98,177	433	489,854	4,930,806	50.22
35-40	0.00125	0.52528	0.00622	97,744	608	487,275	4,440,953	45.43
40-45	0.00195	0.53231	0.00972	97,135	944	483,470	3,953,678	40.70
45-50	0.00300	0.52874	0.01487	96,192	1,431	477,586	3,470,208	36.08
50-55	0.00441	0.52587	0.02181	94,761	2,067	468,904	2,992,621	31.58
55-60	0.00669	0.52829	0.03293	92,694	3,052	456,270	2,523,717	27.23
60-65	0.01025	0.53431	0.05004	89,641	4,485	437,763	2,067,447	23.06
65-70	0.01593	0.52817	0.07677	85,156	6,538	410,357	1,629,684	19.14
70-75	0.02542	0.52355	0.11983	78,618	9,421	370,649	1,219,327	15.51
75-80	0.04054	0.52195	0.18479	69,197	12,787	315,422	848,678	12.26
80-85	0.06729	0.50917	0.28878	56,410	16,290	242,074	533,256	9.45
85+	0.13778		1.00000	40,120	40,120	291,183	291,183	7.26

Ref: Oreglia A. *Methodology for Constructing Abridged Life Tables for California, 1977*, Data Matters. Center for Health Statistics, California Department of Health Services, February 26, 1981.

Harms C, McKendry J. *California Life Expectancy: Abridged Life Tables For California, 1990-96*, Data Matters. Center for Health Statistics, California Department of Health Services, August 1998.

Sources: State of California, Department of Finance, Population Projections, December 1998.
State of California, Department of Health Services, Birth and Death Records.

**TABLE 4
ABRIDGED LIFE TABLE
FOR MALE POPULATION
CALIFORNIA, 2000**

AGE INTERVAL	PROPORTION DYING			OF 100,000 BORN ALIVE		STATIONARY POPULATION		AVERAGE REMAINING LIFETIME
	Uncorrected	Correction Term	Corrected					
Period of Life Between Two Exact Ages	Average Annual Death Rate	Fraction of Last Age Interval Lived	Proportion Dying During Age Interval	Number Living at Beginning of Age Interval	Number Dying During Age Interval	In the Age Interval	In This And All Subsequent Age Intervals	Average Remaining Years of Life
0-1	-	0.17981	0.00572	100,000	572	99,531	7,661,079	76.61
1-5	0.00030	0.40972	0.00119	99,428	118	397,435	7,561,548	76.05
5-10	0.00013	0.45182	0.00065	99,310	64	496,376	7,164,113	72.14
10-15	0.00022	0.56915	0.00109	99,246	109	495,997	6,667,737	67.18
15-20	0.00078	0.59543	0.00392	99,137	388	494,902	6,171,740	62.25
20-25	0.00115	0.48899	0.00575	98,749	567	492,296	5,676,839	57.49
25-30	0.00107	0.47911	0.00532	98,182	522	489,549	5,184,542	52.81
30-35	0.00120	0.51857	0.00596	97,660	582	486,898	4,694,993	48.07
35-40	0.00160	0.52119	0.00796	97,078	773	483,537	4,208,095	43.35
40-45	0.00244	0.53224	0.01213	96,305	1,168	478,791	3,724,558	38.67
45-50	0.00383	0.52715	0.01897	95,137	1,805	471,416	3,245,767	34.12
50-55	0.00548	0.52432	0.02707	93,332	2,526	460,651	2,774,351	29.73
55-60	0.00816	0.52669	0.04003	90,806	3,635	445,426	2,313,700	25.48
60-65	0.01231	0.53581	0.05983	87,171	5,215	423,749	1,868,274	21.43
65-70	0.01887	0.52955	0.09033	81,955	7,403	392,364	1,444,524	17.63
70-75	0.03118	0.52289	0.14512	74,553	10,819	346,954	1,052,160	14.11
75-80	0.04938	0.51918	0.22070	63,733	14,066	284,851	705,206	11.06
80-85	0.08191	0.50093	0.34005	49,668	16,890	206,192	420,355	8.46
85+	0.15305		1.00000	32,778	32,778	214,163	214,163	6.53

Ref: Oreglia A. *Methodology for Constructing Abridged Life Tables for California, 1977*, Data Matters. Center for Health Statistics, California Department of Health Services, February 26, 1981.

Harms C, McKendry J. *California Life Expectancy: Abridged Life Tables For California, 1990-96*, Data Matters. Center for Health Statistics, California Department of Health Services, August 1998.

Sources: State of California, Department of Finance, Population Projections, December 1998.
State of California, Department of Health Services, Birth and Death Records.

**TABLE 5
ABRIDGED LIFE TABLE
FOR FEMALE POPULATION
CALIFORNIA, 2000**

AGE INTERVAL	PROPORTION DYING			OF 100,000 BORN ALIVE		STATIONARY POPULATION		AVERAGE REMAINING LIFETIME
	Uncorrected	Correction Term	Corrected					
Period of Life Between Two Exact Ages	Average Annual Death Rate	Fraction of Last Age Interval Lived	Proportion Dying During Age Interval	Number Living at Beginning of Age Interval	Number Dying During Age Interval	In the Age Interval	In This And All Subsequent Age Intervals	Average Remaining Years of Life
0-1	-	0.16740	0.00513	100,000	513	99,573	8,133,255	81.33
1-5	0.00022	0.42014	0.00086	99,487	86	397,751	8,033,682	80.75
5-10	0.00011	0.45831	0.00057	99,402	57	496,854	7,635,931	76.82
10-15	0.00014	0.55004	0.00069	99,345	69	496,568	7,139,077	71.86
15-20	0.00028	0.55164	0.00138	99,276	137	496,072	6,642,509	66.91
20-25	0.00038	0.49674	0.00191	99,139	189	495,220	6,146,437	62.00
25-30	0.00042	0.49020	0.00209	98,950	207	494,222	5,651,217	57.11
30-35	0.00053	0.54137	0.00266	98,743	263	493,111	5,156,995	52.23
35-40	0.00087	0.53413	0.00436	98,480	429	491,400	4,663,884	47.36
40-45	0.00145	0.53300	0.00724	98,051	710	488,596	4,172,485	42.55
45-50	0.00216	0.53188	0.01077	97,341	1,048	484,251	3,683,889	37.85
50-55	0.00336	0.52799	0.01666	96,293	1,604	477,678	3,199,637	33.23
55-60	0.00528	0.53067	0.02606	94,689	2,468	467,653	2,721,959	28.75
60-65	0.00831	0.53261	0.04077	92,221	3,760	452,318	2,254,306	24.44
65-70	0.01330	0.52651	0.06449	88,461	5,705	428,800	1,801,987	20.37
70-75	0.02075	0.52638	0.09889	82,756	8,184	394,402	1,373,188	16.59
75-80	0.03410	0.52489	0.15771	74,573	11,761	344,923	978,786	13.13
80-85	0.05796	0.51714	0.25424	62,811	15,969	275,503	633,863	10.09
85+	0.13071		1.00000	46,842	46,842	358,359	358,359	7.65

Ref: Oreglia A. *Methodology for Constructing Abridged Life Tables for California, 1977*, Data Matters Center for Health Statistics, California Department of Health Services, February, 26, 1981.

Harms C, McKendry J. *California Life Expectancy: Abridged Life Tables For California, 1990-96*, Data Matters. Center for Health Statistics, California Department of Health Services, August 1998.

Sources: State of California, California Department of Finance, Population Projections, December 1998.
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