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Annual Summary of Births, Marriages, Divorces, and Deaths: United States, 1987

The provisional number of live births for 1987 was slightly higher than the number reported for 1986 and was the largest number observed since 1964. The birth rate per 1,000 population and the fertility rate per 1,000 women aged 15-44 years also increased between 1986 and 1987.

In 1987 the provisional number of marriages increased from the comparable figure for 1986. However, because the population increased at a greater rate, the marriage rate for 1987 declined and was at the lowest level since 1977.

The number of divorces decreased by less than 1 percent between 1986 and 1987, and the divorce rate per 1,000 population remained the same.

The provisional number of deaths increased in 1987 to the highest number ever recorded, primarily reflecting the continued increase in the proportion of the population 65 years of age and over. The age-adjusted death rate and the infant mortality rate, however, declined to the lowest levels on record in the United States, and life expectancy at birth remained at the record high attained in 1986. Age-adjusted death rates decreased in 1987 for one leading cause of death, Diseases of heart. Within the category Accidents and adverse effects, the rate for All other accidents declined. Changes for the remaining 13 of the 15 leading causes of death were not statistically significant.

Data for 1987 on deaths due to Human immunodeficiency virus infection are available from the Current Mortality Sample. Based on these data, the estimated number of deaths in the United States due to Human immunodeficiency virus infection during 1987 was 13,130.

Births

An estimated 3,829,000 babies were born in the United States during 1987, 3 percent more than the number reported for 1986 (3,731,000) and the largest number reported since 1964. The birth rate was 15.7 live births per 1,000 population, 1 percent higher than the 1986 rate of 15.5 (table A). The fertility rate of 66.1 live births per 1,000 women aged 15-44 years was 2 percent higher than the 1986 rate of 64.9 (table B and figure 1).

Both the birth and fertility rates in 1987 were higher than in 1986 for 8 months and lower for 3 months (January, April, and September). The rates for March 1986 and 1987 were the same (table B). The seasonally adjusted rates showed no consistent pattern during the year (table C).

Changes in the annual number of births are affected by two factors—changes in age-specific birth rates and in the number of women in the childbearing ages. The 2-percent increase in the general fertility rate between 1986 and 1987 indicates that there were increases in at least some of the age-specific birth rates. These increases, coupled with a less than 1-percent increase in the number of women in the childbearing ages (15-44 years), resulted in the 3-percent rise in the number of births.

According to projections prepared by the U.S. Bureau of the Census (1984), the total number of women in the childbearing ages will continue to increase by less than 1 percent annually between 1988 and 1990. Thus, in order for the number of births to increase substantially during these years, some age-specific birth rates will have to increase.

Table A. Vital statistics rates: United States, 1980-87

[Infant mortality rates per 1,000 live births; all other rates per 1,000 population]

Rate	1987 (prov.)	1986 (prov.)	1985 (prov.)	1985 (final)	1984 (final)	1983 (final)	1982 (final)	1981 (final)	1980 (final)
Birth	15.7	15.5	15.7	15.8	15.5	15.5	15.9	15.8	15.9
Death	8.7	8.7	8.7	8.7	8.6	8.6	8.5	8.6	8.8
Natural increase	7.0	6.8	7.0	7.1	6.9	6.9	7.4	7.2	7.1
Marriage	9.9	10.0	10.2	10.1	10.5	10.5	10.6	10.6	10.6
Divorce	4.8	4.8	5.0	5.0	5.0	4.9	5.0	5.3	5.2
Infant mortality	10.0	10.4	10.6	10.6	10.8	11.2	11.5	11.9	12.6

Table B. Live births, birth rates, and fertility rates, by month: United States, 1986 and 1987

[Data are provisional. Rates on an annual basis. Birth rates per 1,000 population and fertility rates per 1,000 women 15-44 years. Due to rounding, figures may not add to totals. Figures include revisions and, therefore, may differ from those previously published]

Month	Number		Birth rate		Fertility rate	
	1987	1986	1987	1986	1987	1986
Total	3,829,000	3,731,000	15.7	15.5	66.1	64.9
January	308,000	310,000	15.0	15.2	62.8	64.0
February	287,000	283,000	15.4	15.3	64.6	64.4
March	328,000	324,000	15.9	15.9	66.7	66.7
April	298,000	298,000	15.0	15.1	62.8	63.2
May	323,000	306,000	15.7	15.0	65.8	62.8
June	319,000	307,000	16.0	15.5	67.0	65.1
July	334,000	322,000	16.1	15.7	67.8	66.0
August	345,000	330,000	16.7	16.1	70.1	67.5
September	340,000	343,000	17.0	17.3	71.4	72.4
October	321,000	310,000	15.5	15.1	65.2	63.3
November	314,000	303,000	15.7	15.3	65.9	64.1
December	312,000	295,000	15.0	14.4	63.3	60.3

NOTE: Beginning with 1959, trend line is based on registered live births; trend line for 1930–59 is based on live births adjusted for underregistration.

Figure 1. Fertility rates: United States, 1930–87

Table C. Seasonally adjusted birth and fertility rates, by month: United States, 1986 and 1987

[Data are provisional. Rates on an annual basis. Birth rates per 1,000 population and fertility rates per 1,000 women 15-44 years. For method of seasonal adjustment, see Technical notes. Figures include revisions and, therefore, may differ from those previously published]

Month	Birth rate		Fertility rate	
	1987	1986	1987	1986
January	15.7	15.9	65.7	67.1
February	15.7	15.6	65.9	65.6
March	16.1	16.1	67.4	67.5
April	15.4	15.6	64.7	65.5
May	16.1	15.4	67.5	64.5
June	16.0	15.5	67.2	64.8
July	15.5	15.0	65.1	63.2
August	15.8	15.1	66.1	63.6
September	15.9	16.1	66.7	67.8
October	15.4	15.1	64.6	63.2
November	16.0	15.6	67.4	65.5
December	15.5	14.7	65.0	62.0

Table D. Marriages and marriage rates, by month: United States, 1986 and 1987

[Data are provisional. Rates on an annual basis per 1,000 population. Due to rounding, figures may not add to totals. Figures include revisions and, therefore, may differ from those previously published]

Month	Number		Rate	
	1987	1986	1987	1986
Total	2,421,000	2,400,000	9.9	10.0
January	132,000	135,000	6.4	6.6
February	133,000	147,000	7.1	8.0
March	174,000	150,000	8.5	7.4
April	192,000	185,000	9.6	9.4
May	231,000	228,000	11.2	11.2
June	288,000	259,000	14.4	13.1
July	230,000	237,000	11.1	11.6
August	233,000	243,000	11.3	11.9
September	228,000	231,000	11.4	11.6
October	206,000	211,000	9.9	10.3
November	174,000	174,000	8.7	8.7
December	200,000	200,000	9.7	9.7

Provisional data by place of occurrence indicate that the number of births increased 2-8 percent between 1986 and 1987 in five geographic divisions (New England, Middle Atlantic, South Atlantic, Mountain, and Pacific) and by less than 1 percent in the East North Central and East South Central divisions. The number of births declined 1 and 3 percent, respectively, in the West North Central and West South Central divisions.

From 1986 to 1987, birth rates per 1,000 total population increased 1-7 percent in five divisions (New England, Middle Atlantic, South Atlantic, Mountain, and Pacific) and declined 1-3 percent in three divisions (West North Central, East South Central, and West South Central). The largest increase was in the New England Division; the largest decrease was in the West South Central Division. The birth rate in the East North Central Division remained unchanged.

Between 1986 and 1987 the provisional number of births increased in 24 States and the District of Columbia and declined in 26 States. Birth rates increased in 21 States and the District of Columbia, declined in 27 States, and were unchanged in 2 States.

Natural increase

During 1987 an estimated 1,702,000 persons were added to the population as a result of natural increase, the excess of births over deaths. The rate of natural increase in 1987 was 7.0 persons per 1,000 population, 3 percent above the rate for 1986 (6.8). The rate increased solely because of the rise in the birth rate.

Marriages

According to provisional statistics, more couples married in 1987 (2,421,000) than in 1986 (2,400,000) (table D). However, the national marriage rate fell by 1 percent, from 10.0 per 1,000 population in 1986 to 9.9 in 1987. The 1-percent drop in the marriage rate indicates that the increase in the number of marriages did not keep pace with population growth.

The marriage rate, recorded since 1867, has varied between a high of 16.4 in 1946 and a low of 7.9 in the depression year of 1932 (figure 2). The 1987 rate is the lowest marriage rate since 1977 when it was also 9.9. This is the third consecutive drop in the marriage rate after a period of fairly steady rates from 1980–84.

Marriages in 1987 exhibited the usual seasonal variations. More couples married in June than in any other month (tables D and E), and the fewest marriages occurred in January. The marriage rate for June (14.4) was more than twice that for January (6.4).

Marriages also exhibited the usual geographic patterns by place of occurrence. Marriage rates were lowest on average in the midwestern States and highest in the southern and western States. Marriage rates ranged from lows of 7.1 in West Virginia and 7.4 in Pennsylvania and Nebraska to highs of 15.2 in Hawaii, 15.6 in South Carolina, and 116.8 in Nevada. Between 1986 and 1987 marriage rates fell in 35 States, rose in 11 States and the District of Columbia, and remained steady in 4 States.

Divorces

The estimated number of divorces for the United States fell less than 1 percent between 1986 and 1987, from 1,159,000 to 1,157,000 (table F). The divorce rate for 1987, 4.8 per 1,000 population, was the same as the rate for 1986. The divorce rate rose fairly steadily throughout the 1960's and 1970's, reaching a peak of 5.3 in 1979 and 1981. The divorce rate stabilized from 1982 to 1985, fluctuating between 4.9 and 5.0. The 1986 and 1987 rates of 4.8 are the lowest since 1975 (figure 2).

Divorce rates on average were lowest in the northeastern States and highest in the southern and western States. Divorce rates by place of occurrence ranged from

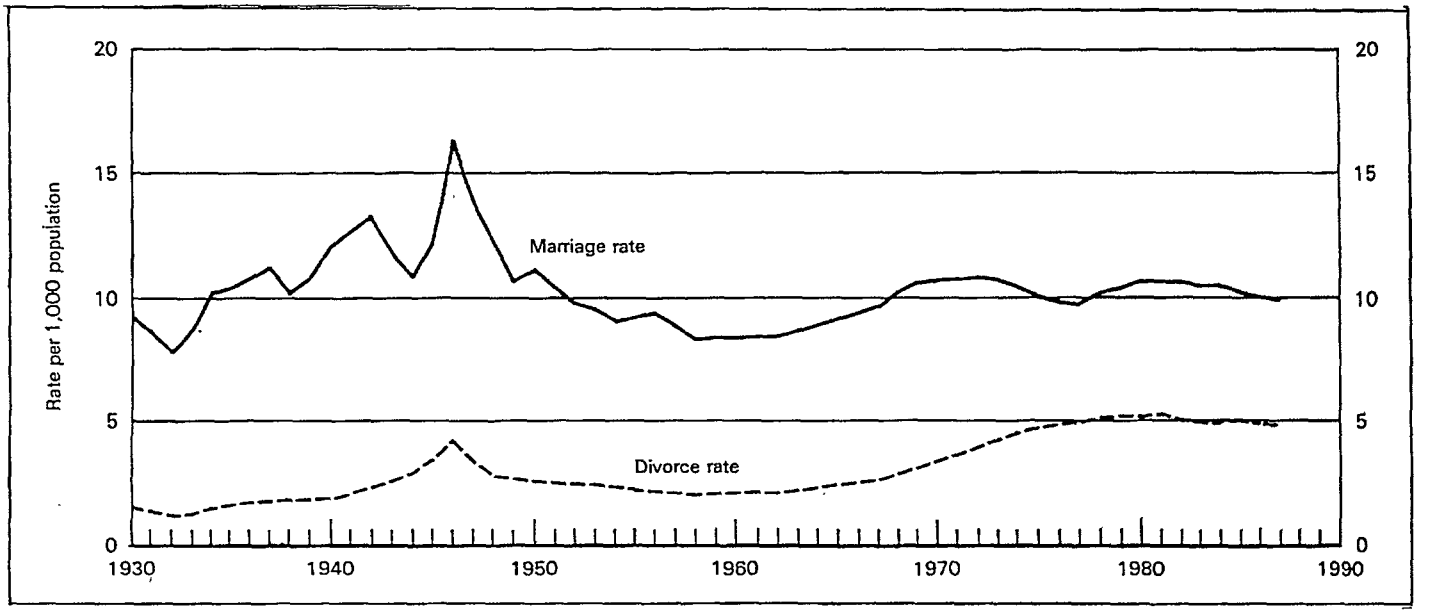

Figure 2. Marriage and divorce rates: United States, 1930–87

Table E. Marriage rates, seasonally adjusted and unadjusted, by month: United States, 1986 and 1987

[Data are provisional. Rates on an annual basis per 1,000 women 15-44 years. For method of seasonal adjustment, see Technical notes. Figures include revisions and, therefore, may differ from those previously published]

Month	Unadjusted for seasonal variation		Adjusted for seasonal variation	
	1987	1986	1987	1986
Total	41.7	41.6	...	...
January	26.9	27.7	45.0	45.0
February	30.0	33.5	39.3	47.2
March	35.5	30.9	43.8	37.2
April	40.3	39.3	43.9	43.2
May	47.1	46.8	41.7	41.2
June	60.5	54.9	41.7	38.3
July	46.8	48.5	41.9	42.9
August	47.3	49.8	37.6	39.3
September	47.8	48.8	41.4	43.0
October	41.7	43.2	42.3	43.6
November	36.5	36.7	39.7	40.8
December	40.7	40.9	45.2	43.7

Table F. Divorces and divorce rates, by month: United States, 1986 and 1987

[Data are provisional. Includes reported annulments. Rates on an annual basis per 1,000 population. Data are estimated for some States; see Technical notes. Due to rounding, figures may not add to totals. Figures include revisions and, therefore, may differ from those previously published]

Month	Number		Rate	
	1987	1986	1987	1986
Total	1,157,000	1,159,000	4.8	4.8
January	92,000	97,000	4.5	4.8
February	86,000	85,000	4.7	4.6
March	96,000	91,000	4.7	4.5
April	97,000	97,000	4.9	4.9
May	96,000	100,000	4.7	4.9
June	108,000	97,000	5.4	4.9
July	103,000	105,000	5.0	5.1
August	96,000	97,000	4.6	4.7
September	97,000	99,000	4.9	5.0
October	96,000	99,000	4.7	4.8
November	90,000	91,000	4.5	4.6
December	98,000	101,000	4.7	4.9

lows of 3.0 in Massachusetts and Connecticut, 3.2 in Pennsylvania, and 3.3 in North Dakota to highs of 7.0 in Arizona, 7.3 in Oklahoma, and 13.7 in Nevada. Between 1986 and 1987 divorce rates fell in 27 States, rose in 14 States and the District of Columbia, and remained the same in 7 States. Provisional divorce data are not available from Indiana and Louisiana.

Deaths

During 1987 an estimated 2,127,000 deaths occurred in the United States, the greatest number ever recorded. The provisional death rate for 1987 of 874.0 deaths per 100,000 population was slightly higher than the provisional rate for 1986 (870.8). The record number of deaths in 1987 is consistent with a general increase in the size of the population, especially for ages 65 years and over. In contrast to the two previous years, 1987 was not characterized by a major influenza outbreak, which is often associated with elevated mortality (Centers for Disease Control, 1988). As a result of the continued decline in death rates for most age groups, the provisional age-adjusted death rate declined from 540.2 deaths per 100,000 population in 1986 to 536.2 in 1987, the lowest age-adjusted death rate ever recorded in the United States (figure 3). Age-adjusted death rates control for changes and variations in the age composition of the population; therefore, they are better indicators than crude death rates for showing changes in mortality risk over time and for showing differences between race-sex groups within the population.

Unadjusted death rates per 1,000 population were higher for April, June, July, August, October, and

December in 1987 than for the same months in 1986. Rates for January and November were the same; for the remaining months of 1987, death rates were lower than for the previous year (table G).

Death rates by race and sex, and by age

Age-adjusted death rates for major race-sex groups showed no statistically significant changes between 1986 and 1987, except for white males. The lowest estimated age-adjusted death rate was for white females (386.9 deaths per 100,000 population), followed by black females (579.9), white males (671.0), and black males (1,005.4). The rate for white males was the lowest ever recorded, more than 1 percent lower than the rate for 1986. For white females and black females, the age-adjusted rates were also the lowest on record; however, the changes between 1986 and 1987 were not statistically significant.

Table G. Deaths and death rates, by month: United States, 1986 and 1987

[Data are provisional. Rates on an annual basis per 1,000 population. Due to rounding, figures may not add to totals. Figures include revisions and, therefore, may differ from those previously published]

Month	Number		Rate	
	1987	1986	1987	1986
Total	2,127,000	2,099,000	8.7	8.7
January	190,000	191,000	9.3	9.3
February	178,000	181,000	9.6	9.8
March	186,000	193,000	9.0	9.5
April	186,000	175,000	9.3	8.9
May	174,000	175,000	8.5	8.6
June	171,000	167,000	8.5	8.4
July	175,000	173,000	8.5	8.4
August	171,000	161,000	8.3	7.9
September	164,000	165,000	8.2	8.3
October	178,000	171,000	8.6	8.3
November	171,000	170,000	8.5	8.5
December	183,000	178,000	8.8	8.6

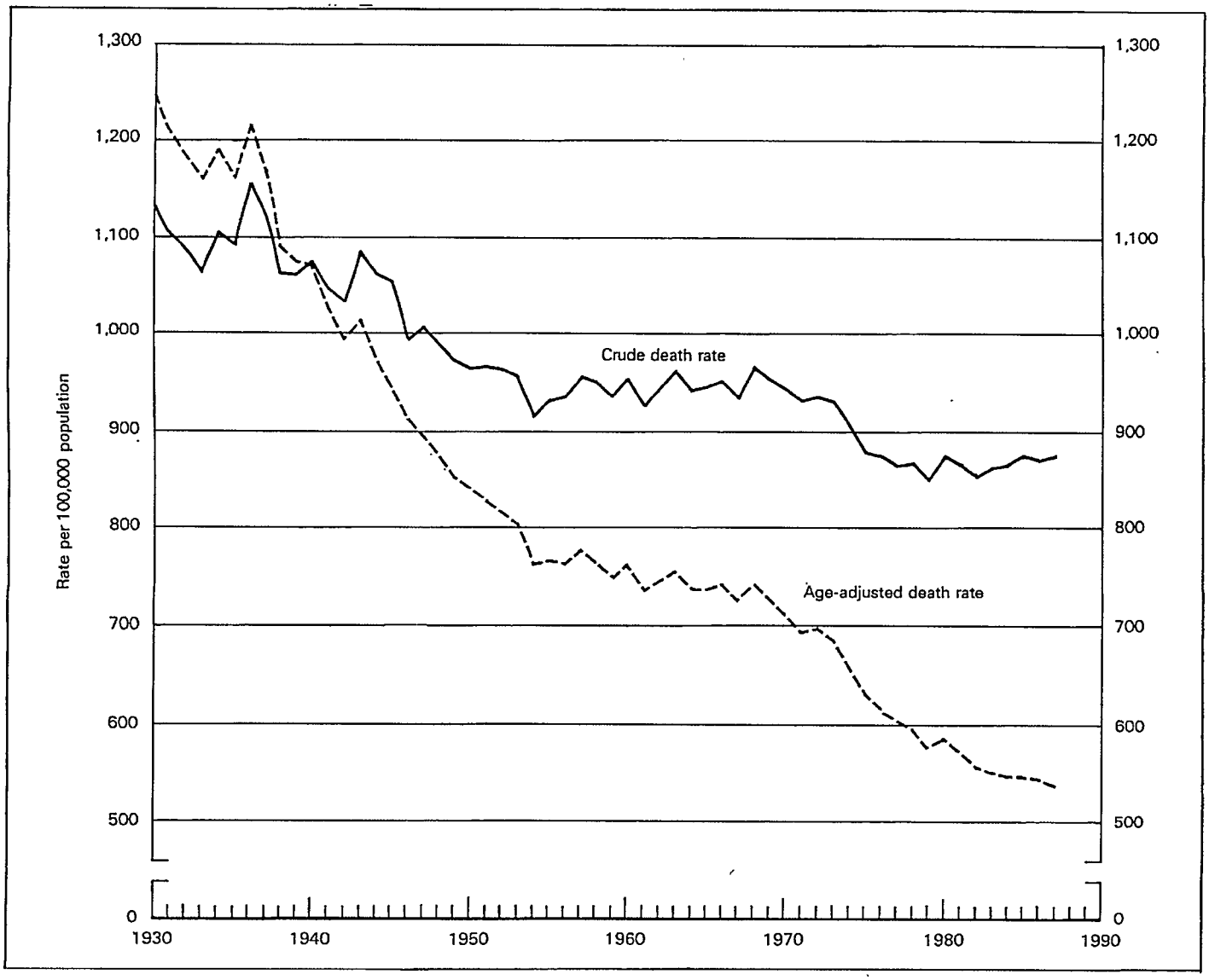

Figure 3. Crude and age-adjusted death rates: United States, 1930–87

Between 1986 and 1987 provisional death rates decreased for each age group except for those aged 1-4 years, 25-34 years, and 85 years and over, but none of the changes was statistically significant (table H).

Expectation of life

The expectation of life at birth in 1987 was 74.9 years, the same as the provisional record high attained in 1986. Provisional data showed that among the white population, from 1986 to 1987, life expectancy at birth increased by 0.1 year for males, but declined by 0.1 year for females. Among the black population, life expectancy at birth declined by 0.1 year for males, but increased by 0.2 year for females. The expectation of life at birth represents the average number of years that a group of infants would be expected to live if, throughout life, they were to experience the age-specific death rates prevailing during the year of their birth.

Table H. Death rates by age for 1986 and 1987 and percent difference between 1986 and 1987: United States

[Provisional data based on a 10-percent sample of deaths. Rates per 100,000 population in specified group. For information on standard errors of the estimates and further discussion, see Technical notes]

Age	1987	1986	Percent difference
All ages[1]	874.0	870.8	0.4
Under 1 year[2]	1,006.5	1,036.7	-2.9
1-4 years	51.6	50.8	1.6
5-14 years	25.6	26.4	-3.0
15-24 years	101.6	102.6	-1.0
25-34 years	131.4	130.2	0.9
35-44 years	211.8	212.5	-0.3
45-54 years	498.9	504.6	-1.1
55-64 years	1,246.8	1,259.0	-1.0
65-74 years	2,763.6	2,787.8	-0.9
75-84 years	6,266.1	6,316.4	-0.8
85 years and over	15,405.7	15,291.1	0.7

[1] Figures for age not stated are included in "All ages" but are not distributed among age groups.
[2] Death rates under 1 year (based on population estimates) differ from infant mortality rates (based on live births); see table 11 for infant mortality rates and Technical notes for discussion of the difference.

Major causes of death

The 15 leading causes of death in 1987 accounted for 87 percent of all deaths in the United States (table J). (For ranking procedures see Technical notes.) The leading causes of death for 1979 through 1987 have been the same, but the order has often varied. In 1987, the order of the leading causes remained as it was in 1986.

For most causes, age-adjusted death rates are better indicators than crude death rates for showing changes in mortality risk over time. Such rates are used to depict trends for 13 of the 15 leading causes of death. Among these 13 causes, age-adjusted death rates were lower in 1987 than in 1986 for one leading cause, Diseases of heart. The age-adjusted death rate for this cause has generally declined since 1950 (figure 4). Although age-adjusted rates for Accidents and adverse effects did not change significantly between 1986 and 1987, the rate for the subcategory All other accidents decreased, a change that is consistent with the general downward pattern observed since 1979. For the remaining 11 leading causes of death, provisional data did not indicate a statistically significant change between 1986 and 1987.

For the other two leading causes of death, which occur mainly among infants under 1 year of age (Certain conditions originating in the perinatal period and Congenital anomalies), age-adjusted death rates are not shown. Changes in mortality for these two causes are measured by the infant mortality rate per 100,000 live births. The difference between the infant mortality rate for Certain conditions originating in the perinatal period for 1987 (479.4 infant deaths per 100,000 live births) and the 1986 rate (481.3) was not statistically significant. Similarly, the differ-

Table J. Death rates and percent of total deaths for the 15 leading causes of death: United States, 1987

[Provisional data based on a 10-percent sample of deaths. Rates per 100,000 population. See table 8 for category numbers of causes of death. For information on standard errors of the estimates and further discussion, see Technical notes]

Rank	Cause of death (Ninth Revision, International Classification of Diseases, 1975)	Death rate	Percent of total deaths
...	All causes	874.0	100.0
1	Diseases of heart	313.4	35.9
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues	196.1	22.4
3	Cerebrovascular diseases	61.3	7.0
4	Accidents and adverse effects	39.0	4.5
...	Motor vehicle accidents	20.1	2.3
...	All other accidents and adverse effects	18.9	2.2
5	Chronic obstructive pulmonary diseases and allied conditions	32.2	3.7
6	Pneumonia and influenza	28.8	3.3
7	Diabetes mellitus	15.6	1.8
8	Suicide	12.7	1.5
9	Chronic liver disease and cirrhosis	10.7	1.2
10	Atherosclerosis	9.5	1.1
11	Nephritis, nephrotic syndrome, and nephrosis	9.5	1.1
12	Homicide and legal intervention	8.5	1.0
13	Septicemia	8.1	0.9
14	Certain conditions originating in the perinatal period	7.6	0.9
15	Congenital anomalies	5.0	0.6
...	All other causes	116.0	13.3

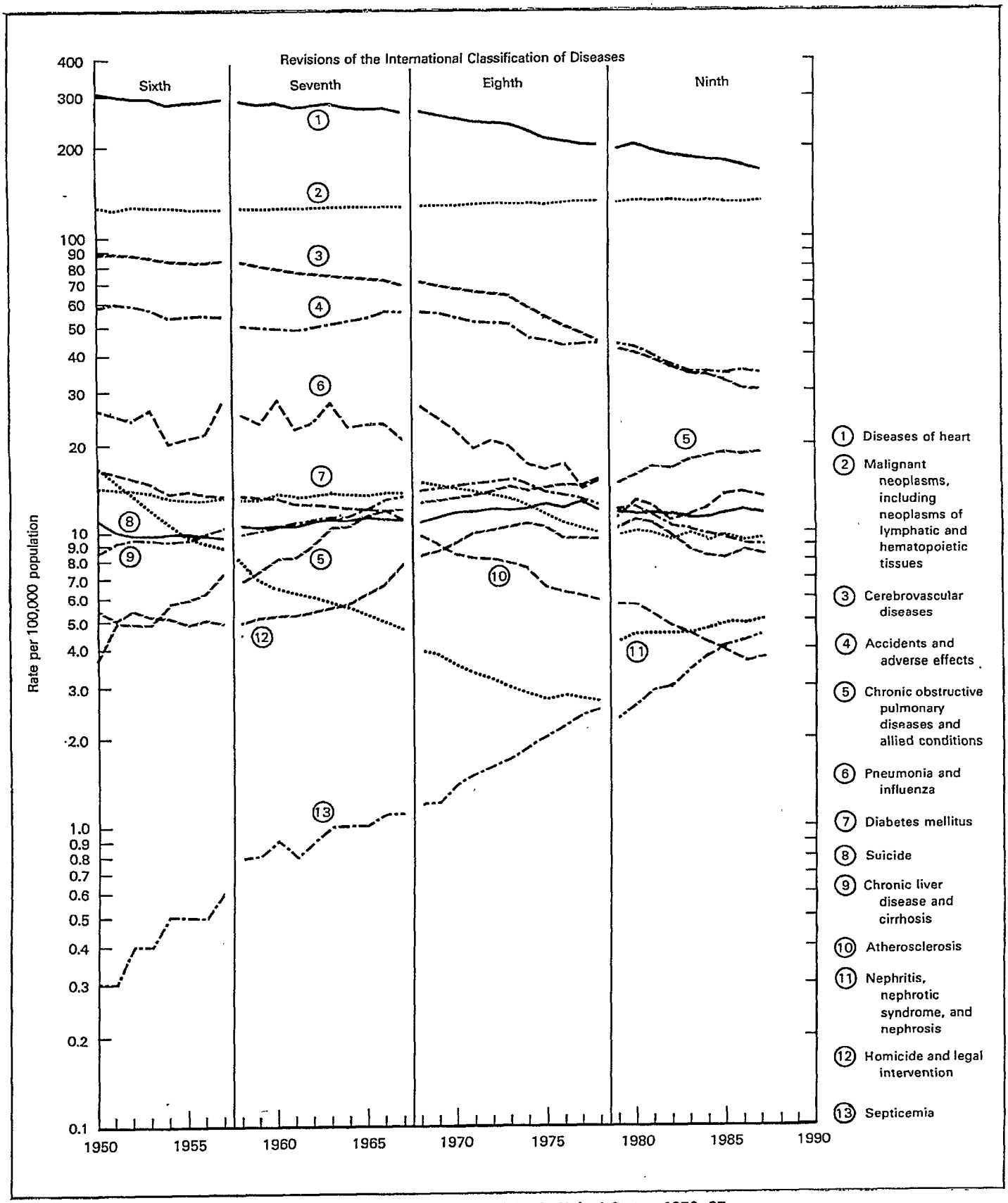

Figure 4. Age-adjusted death rates for 13 of the 15 leading causes of death: United States, 1950–87

ence in the 1987 rate for Congenital anomalies (207.0) and the 1986 rate (218.9) was not statistically significant.

AIDS

Beginning with mortality data for 1987, a new classification was introduced for Human immunodeficiency virus infection (HIV infection) (see Technical notes). On the basis of the Current Mortality Sample the estimated total number of deaths due to HIV infection during 1987 was 13,130 with a range of 12,450 to 13,820 (approximate 95-percent confidence interval). Of the approximately 13,130 deaths, 65 percent were for white males, 25 percent for black males, and 4-5 percent each for white and black females. The largest numbers for both males and females were for the age groups 25-34 and 35-44 years. Although the numbers of deaths were highest for white males, the age-adjusted death rate and almost all age-specific death rates were highest for black males, followed by white males, black females, and white females.

If HIV infection were ranked with the other causes of death, it would replace Congenital anomalies as the 15th leading cause of death. However, HIV infection is not among the categories that are ranked; for ranking procedures, see Technical notes. The estimated numbers of deaths and death rates for HIV infection are shown in table 10 of this report.

Infant mortality

The infant mortality rate for 1987 was 10.0 per 1,000 live births, 4 percent lower than the rate of 10.4 for 1986 and the lowest U.S. rate ever recorded (figure 5). For 1987 the estimated infant mortality rate for infants under 28 days was 6.5 deaths per 1,000 live births; for infants 28 days-11 months the rate was 3.4 deaths per 1,000 live births. Between 1986 and 1987 the changes in mortality rates for infants under 28 days and for infants 28 days-11 months were not greater than would be expected due to sampling variation and therefore are not statistically significant. Individually, none of the causes of infant mortality changed significantly between 1986 and 1987.

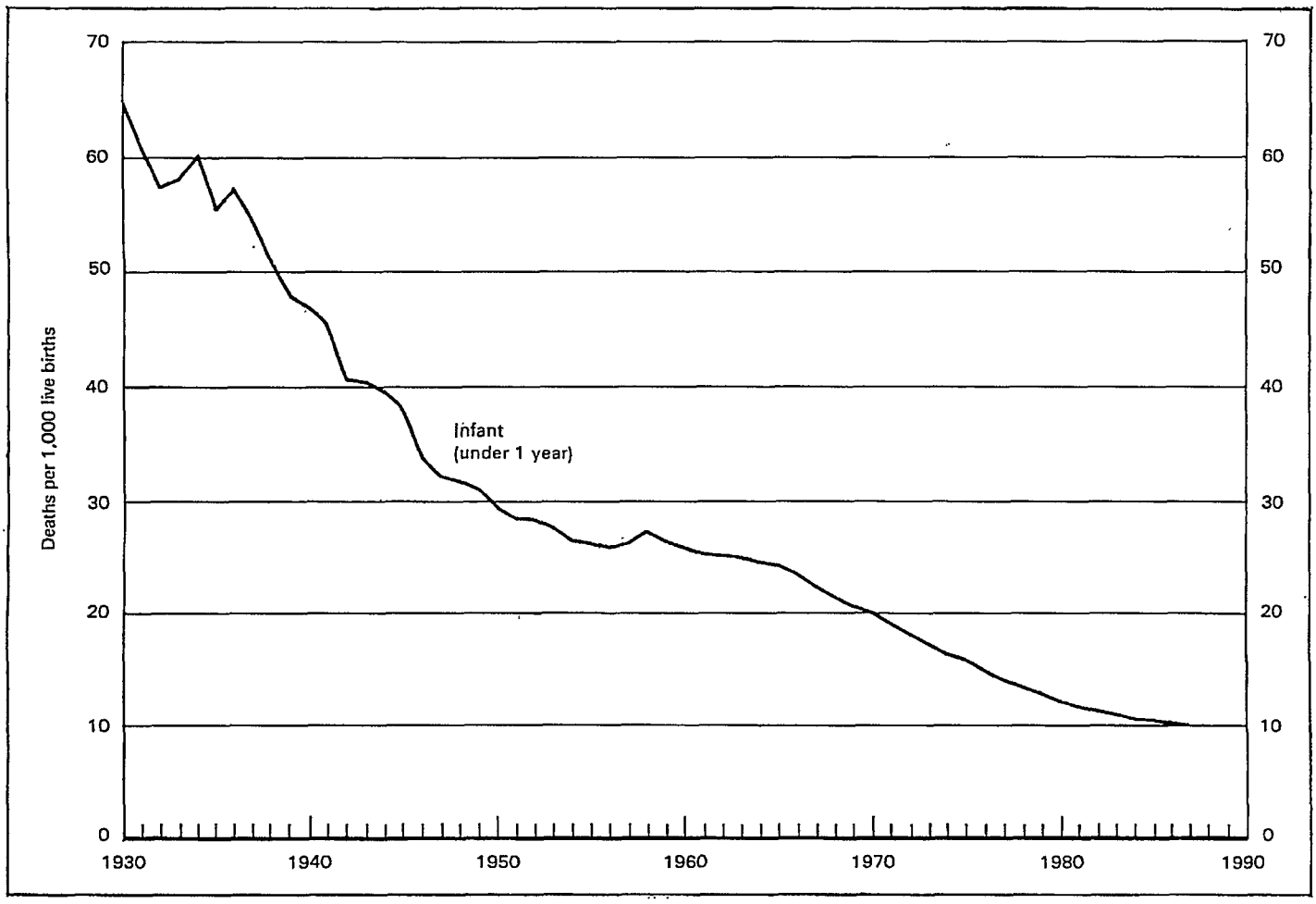

Figure 5. Infant mortality rates: United States, 1930–87

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Table 1. Live births and birth rates: Each reporting area, 1986 and 1987

[Provisional number of events reported; see Technical notes. By place of occurrence. Rates per 1,000 population in specified area]

Area	Live births			
	1987		1986	
	Number	Rate	Number	Rate
New England	187,816	14.6	174,505	13.7
Maine	16,155	13.6	16,022	13.6
New Hampshire	16,435	15.5	16,361	15.9
Vermont	7,226	13.2	7,529	13.9
Massachusetts	86,934	14.8	80,063	13.7
Rhode Island	14,519	14.7	13,935	14.3
Connecticut	46,547	14.5	40,595	12.7
Middle Atlantic	548,021	14.6	529,790	14.2
New York	270,390	15.2	264,844	14.9
New Jersey	111,344	14.5	104,506	13.7
Pennsylvania	166,287	13.9	160,440	13.5
East North Central	618,999	14.8	618,696	14.8
Ohio	156,900	14.5	158,277	14.7
Indiana	77,694	14.0	79,630	14.5
Illinois	177,564	15.3	172,321	14.9
Michigan	136,374	14.8	136,198	14.9
Wisconsin	70,467	14.7	72,270	15.1
West North Central	262,637	14.9	265,986	15.1
Minnesota	64,068	15.1	64,819	15.4
Iowa	38,736	13.7	38,794	13.6
Missouri	75,950	14.9	76,224	15.0
North Dakota	11,545	17.2	11,900	17.5
South Dakota	11,514	16.2	11,714	16.5
Nebraska	23,657	14.8	24,433	15.3
Kansas	37,167	15.0	38,102	15.5
South Atlantic	629,371	15.1	606,735	14.8
Delaware	10,032	15.6	9,768	15.4
Maryland	64,692	14.3	61,953	13.9
District of Columbia	20,406	32.8	20,368	32.5
Virginia	87,002	14.7	84,209	14.6
West Virginia	23,572	12.4	24,195	12.6
North Carolina	93,405	14.6	90,597	14.3
South Carolina	50,693	14.8	49,604	14.7
Georgia	104,881	16.9	98,786	16.2
Florida	174,688	14.5	167,255	14.3
East South Central	222,131	14.5	221,525	14.6
Kentucky	51,075	13.7	51,682	13.9
Tennessee	71,343	14.7	71,890	15.0
Alabama	59,207	14.5	56,417	13.9
Mississippi	40,506	15.4	41,536	15.8
West South Central	462,452	17.2	474,837	17.7
Arkansas	33,375	14.0	34,063	14.4
Louisiana	75,313	16.9	77,953	17.3
Oklahoma	45,535	13.9	48,061	14.5
Texas	308,229	18.4	314,760	18.9
Mountain	235,177	17.9	229,868	17.7
Montana	11,976	14.8	12,372	15.1
Idaho	15,956	16.0	16,329	16.3
Wyoming	7,107	14.5	8,011	15.8
Colorado	54,314	16.5	55,724	17.1
New Mexico	30,169	20.1	23,952	16.2
Arizona	63,449	18.7	60,890	18.4
Utah	35,927	21.4	37,368	22.4
Nevada	16,279	16.2	15,222	15.8
Pacific	637,640	17.5	618,563	17.3
Washington	73,836	16.3	68,754	15.4
Oregon	39,708	14.6	40,356	15.0
California	494,053	17.9	478,822	17.7
Alaska	11,441	21.8	12,368	23.2
Hawaii	18,602	17.2	18,263	17.2

All data are by State of occurrence rather than by State of residence and should be interpreted accordingly.

Table 2. Marriages, divorces, and rates: Each reporting area, 1986 and 1987

[Provisional number of events reported; see Technical notes. By place of occurrence. Rates per 1,000 population in specified area]

Area	Marriages[1]				Divorces			
	1987		1986		1987		1986	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
New England	119,193	9.3	104,415	8.2	43,960	3.4	45,469	3.6
Maine	11,879	10.0	12,082	10.3	5,811	4.9	5,573	4.7
New Hampshire	10,506	9.9	11,708	11.4	4,844	4.6	4,737	4.6
Vermont	5,668	10.3	5,607	10.4	2,201	4.0	2,377	4.4
Massachusetts	55,925	9.6	40,717	7.0	17,755	3.0	19,958	3.4
Rhode Island	8,026	8.1	8,044	8.3	3,681	3.7	3,672	3.8
Connecticut	27,189	8.5	26,257	8.2	9,668	3.0	9,152	2.9
Middle Atlantic	317,164	8.5	325,821	8.7	134,678	3.6	128,004	3.4
New York	169,184	9.5	176,862	10.0	68,965	3.9	59,542	3.4
New Jersey	60,129	7.8	60,792	8.0	27,222	3.5	28,397	3.7
Pennsylvania	87,851	7.4	88,167	7.4	38,491	3.2	40,065	3.4
East North Central[2]	352,585	8.4	359,925	8.6	152,356	4.2	154,231	4.3
Ohio	95,647	8.9	96,994	9.0	48,162	4.5	53,358	5.0
Indiana	48,451	8.8	50,514	9.2	---	---	---	---
Illinois	95,598	8.3	96,261	8.3	46,681	4.0	46,511	4.0
Michigan	75,159	8.2	77,770	8.5	40,493	4.4	37,654	4.1
Wisconsin	37,730	7.8	38,386	8.0	17,020	3.5	16,708	3.5
West North Central	149,838	8.5	155,803	8.9	72,063	4.1	73,704	4.2
Minnesota	32,765	7.7	34,964	8.3	14,865	3.5	13,893	3.3
Iowa	23,100	8.2	23,350	8.2	10,791	3.8	10,206	3.6
Missouri	48,167	9.4	50,273	9.9	24,289	4.8	25,889	5.1
North Dakota	5,025	7.5	5,164	7.6	2,249	3.3	2,264	3.3
South Dakota	6,983	9.8	7,447	10.5	2,692	3.8	2,585	3.7
Nebraska	11,749	7.4	12,027	7.5	6,317	4.0	6,233	3.9
Kansas	22,049	8.9	22,578	9.2	10,860	4.4	12,634	5.1
South Atlantic	443,768	10.6	442,498	10.8	216,454	5.2	211,093	5.2
Delaware	5,209	8.1	5,473	8.6	2,910	4.5	3,082	4.9
Maryland	45,436	10.0	45,985	10.3	15,932	3.5	15,520	3.5
District of Columbia	5,146	8.3	5,125	8.2	4,150	6.7	2,384	3.8
Virginia	67,073	11.4	66,836	11.5	25,568	4.3	24,974	4.3
West Virginia	13,451	7.1	13,783	7.2	9,071	4.8	9,821	5.1
North Carolina	50,506	7.9	50,204	7.9	31,630	4.9	31,659	5.0
South Carolina	53,489	15.6	54,126	16.0	13,961	4.1	13,454	4.0
Georgia	65,284	10.5	71,952	11.8	33,546	5.4	32,637	5.3
Florida	138,174	11.5	129,014	11.1	79,686	6.6	77,562	6.6
East South Central	173,024	11.3	176,682	11.6	87,975	5.8	87,945	5.8
Kentucky	47,583	12.8	47,147	12.6	19,933	5.3	19,288	5.2
Tennessee	57,530	11.8	58,877	12.3	31,012	6.4	29,172	6.1
Alabama	44,045	10.8	46,539	11.5	24,658	6.0	25,315	6.2
Mississippi	23,866	9.1	24,119	9.2	12,372	4.7	14,170	5.4
West South Central[3]	289,459	10.8	306,507	11.4	133,432	5.9	141,192	6.3
Arkansas	32,198	13.5	31,162	13.1	16,197	6.8	16,563	7.0
Louisiana	36,764	8.2	36,663	8.1	---	---	---	---
Oklahoma	31,823	9.7	33,776	10.2	23,919	7.3	24,729	7.5
Texas	188,674	11.2	204,906	12.3	93,316	5.6	99,900	6.0
Mountain	245,060	18.6	231,913	17.8	86,912	6.6	87,475	6.7
Montana	6,518	8.1	6,785	8.3	4,135	5.1	4,341	5.3
Idaho	13,080	13.1	10,524	10.5	5,873	5.9	6,023	6.0
Wyoming	4,600	9.4	5,348	10.5	3,209	6.5	3,553	7.0
Colorado	31,388	9.5	32,454	9.9	18,558	5.6	19,308	5.9
New Mexico	13,518	9.0	14,142	9.6	8,608	5.7	8,872	6.0
Arizona	42,008	12.4	36,021	10.9	23,808	7.0	23,399	7.1
Utah	16,294	9.7	16,869	10.1	8,879	5.3	8,480	5.1
Nevada	117,654	116.8	109,770	114.0	13,842	13.7	13,499	14.0
Pacific	333,182	9.1	306,592	8.6	173,830	4.8	177,679	5.0
Washington	43,460	9.6	43,782	9.8	26,045	5.7	26,108	5.8
Oregon	23,325	8.6	21,638	8.0	15,694	5.8	15,490	5.7
California	244,440	8.8	218,959	8.1	124,090	4.5	127,641	4.7
Alaska	5,509	10.5	5,925	11.1	3,530	6.7	3,836	7.2
Hawaii	16,448	15.2	16,288	15.3	4,471	4.1	4,604	4.3

[1] Data are either marriages reported or marriage licenses issued; see Technical notes.
[2] Divorce data exclude figures for Indiana.
[3] Divorce data exclude figures for Louisiana.

All data are by State of occurrence rather than by State of residence and should be interpreted accordingly.

Table 3. Deaths, death rates, and infant deaths: Each reporting area, 1986 and 1987

[Provisional number of events reported; see Technical notes. By place of occurrence. Rates per 1,000 population in specified area]

Area	Deaths (all ages)				Infant deaths (under 1 year)			
	1987		1986		1987		1986	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
New England	118,594	9.2	115,900	9.1	1,426	7.6	1,427	8.4
Maine	11,434	9.6	10,983	9.4	103	6.4	123	7.7
New Hampshire	8,226	7.8	8,387	8.2	119	7.2	118	7.2
Vermont	4,518	8.2	4,840	8.9	66	9.1	62	8.2
Massachusetts	56,273	9.6	54,393	9.3	678	7.8	604	7.9
Rhode Island	9,886	10.0	9,915	10.2	121	8.3	138	9.9
Connecticut	28,257	8.8	27,382	8.6	339	7.3	382	9.4
Middle Atlantic	367,861	9.8	366,883	9.8	5,597	10.2	5,486	10.4
New York	172,380	9.7	172,857	9.7	2,898	10.7	2,840	10.7
New Jersey	69,712	9.1	69,333	9.1	893	8.0	876	8.4
Pennsylvania	125,769	10.5	124,693	10.5	1,806	10.9	1,770	11.0
East North Central	366,920	8.8	371,994	8.9	6,322	10.2	6,640	10.7
Ohio	97,774	9.1	99,947	9.3	1,455	9.3	1,554	9.8
Indiana	48,925	8.8	50,175	9.1	768	9.9	862	10.8
Illinois	99,002	8.5	100,536	8.7	2,003	11.3	2,033	11.8
Michigan	78,871	8.6	79,157	8.7	1,477	10.8	1,549	11.4
Wisconsin	42,348	8.8	42,179	8.8	619	8.8	642	8.9
West North Central	165,615	9.4	164,394	9.4	2,564	9.8	2,599	9.8
Minnesota	34,644	8.2	35,136	8.3	555	8.7	605	9.3
Iowa	26,985	9.5	26,617	9.3	307	7.9	308	7.9
Missouri	54,574	10.7	53,844	10.6	934	12.3	872	11.4
North Dakota	5,827	8.7	5,685	8.4	102	8.8	113	9.5
South Dakota	6,683	9.4	6,658	9.4	116	10.1	136	11.6
Nebraska	15,207	9.5	14,812	9.3	234	9.9	248	10.2
Kansas	21,695	8.8	21,642	8.8	316	8.5	317	8.3
South Atlantic	378,595	9.1	373,524	9.1	7,061	11.2	7,099	11.7
Delaware	5,675	8.8	5,688	9.0	91	9.1	109	11.2
Maryland	37,233	8.2	36,595	8.2	631	9.8	637	10.3
District of Columbia	8,602	13.8	8,403	13.4	415	20.3	400	19.6
Virginia	46,015	7.8	45,701	7.9	850	9.8	881	10.5
West Virginia	19,978	10.5	19,834	10.3	215	9.1	253	10.5
North Carolina	55,396	8.6	54,871	8.7	1,064	11.4	1,058	11.7
South Carolina	27,705	8.1	27,339	8.1	653	12.9	649	13.1
Georgia	49,872	8.0	50,241	8.2	1,275	12.2	1,220	12.3
Florida	128,119	10.7	124,852	10.7	1,867	10.7	1,892	11.3
East South Central	143,384	9.4	142,825	9.4	2,557	11.5	2,561	11.6
Kentucky	33,959	9.1	34,419	9.2	410	8.0	477	9.2
Tennessee	48,370	10.0	47,436	9.9	887	12.4	820	11.4
Alabama	37,188	9.1	37,335	9.2	749	12.7	786	13.9
Mississippi	23,867	9.1	23,635	9.0	511	12.6	478	11.5
West South Central	209,856	7.8	210,959	7.9	4,443	9.6	4,948	10.4
Arkansas	23,464	9.8	23,896	10.1	286	8.6	326	9.6
Louisiana	36,516	8.2	36,614	8.1	883	11.7	943	12.1
Oklahoma	27,972	8.5	28,787	8.7	447	9.8	508	10.6
Texas	121,904	7.3	121,662	7.3	2,827	9.2	3,171	10.1
Mountain	93,736	7.1	91,829	7.1	2,076	8.8	2,210	9.6
Montana	6,524	8.1	6,609	8.1	90	7.5	86	7.0
Idaho	6,992	7.0	7,017	7.0	125	7.8	177	10.8
Wyoming	2,878	5.9	3,049	6.0	39	5.5	55	6.9
Colorado	21,487	6.5	21,318	6.5	557	10.3	529	9.5
New Mexico	10,437	7.0	10,354	7.0	207	6.9	256	10.7
Arizona	27,522	8.1	26,413	8.0	558	8.8	595	9.8
Utah	9,339	5.6	9,317	5.6	352	9.8	365	9.8
Nevada	8,557	8.5	7,752	8.0	148	9.1	147	9.7
Pacific	282,066	7.7	262,178	7.3	5,876	9.2	5,555	9.2
Washington	34,992	7.7	32,899	7.4	669	9.1	694	10.1
Oregon	24,130	8.9	23,418	8.7	387	9.7	360	8.9
California	214,486	7.8	197,538	7.3	4,528	9.2	4,205	9.1
Alaska	2,075	4.0	2,174	4.1	110	9.6	124	10.0
Hawaii	6,383	5.9	6,149	5.8	182	9.8	172	9.4

All data are by State of occurrence rather than by State of residence and should be interpreted accordingly.

Table 4. Deaths and death rates, by age, race, and sex: United States, 1987

[Provisional data based on a 10-percent sample of deaths. Rates per 100,000 population in specified group. Due to rounding of estimates, figures may not add to totals. For information on standard errors of the estimates and further discussion, see Technical notes]

Age	All races			White			All other					
							Total			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
	Number											
All ages	2,127,000	1,108,440	1,018,850	1,852,720	957,180	895,540	274,570	151,260	123,310	250,840	137,240	113,600
Under 1 year	38,000	21,680	16,280	25,560	14,710	10,850	12,400	6,970	5,430	11,450	6,410	5,040
1-4 years	7,470	4,330	3,140	5,740	3,250	2,490	1,730	1,080	650	1,480	940	540
5-14 years	8,750	5,560	3,190	6,660	4,240	2,420	2,090	1,320	770	1,900	1,230	670
15-24 years	38,860	29,080	9,780	30,850	23,110	7,740	8,010	5,970	2,040	7,140	5,340	1,800
25-34 years	56,910	40,970	15,940	42,230	30,650	11,580	14,680	10,320	4,360	13,440	9,440	4,000
35-44 years	72,670	49,120	23,550	53,990	36,890	17,100	18,680	12,230	6,450	17,070	11,200	5,870
45-54 years	116,120	72,160	43,960	91,140	56,910	34,230	24,980	15,250	9,730	22,760	13,900	8,860
55-59 years	107,530	67,080	40,450	89,120	56,330	32,790	18,410	10,750	7,660	16,800	9,800	7,000
60-64 years	167,010	101,460	65,550	141,110	86,390	54,720	25,900	15,070	10,830	24,030	13,970	10,060
65-69 years	222,720	132,110	90,610	193,460	115,960	77,500	29,260	16,150	13,110	27,220	14,950	12,270
70-74 years	265,540	152,340	113,200	235,390	136,040	99,350	30,150	16,300	13,850	27,570	14,760	12,810
75-79 years	294,960	155,570	139,390	264,720	139,910	124,810	30,240	15,660	14,580	27,770	14,160	13,610
80-84 years	287,850	130,740	157,110	262,120	118,720	143,400	25,730	12,020	13,710	23,420	10,600	12,820
85 years and over	441,680	145,380	296,300	409,730	133,440	276,290	31,950	11,940	20,010	28,440	10,320	18,120
Not stated	1,260	860	400	900	630	270	360	230	130	350	220	130
	Rate											
All ages[1]	874.0	935.1	815.9	900.2	951.6	851.0	730.6	843.0	627.8	843.6	973.1	726.7
Under 1 year[2]	1,006.5	1,122.7	883.8	836.9	938.7	729.7	1,728.0	1,920.1	1,531.1	2,001.7	2,218.0	1,780.9
1-4 years	51.6	58.4	44.4	49.1	54.2	43.7	62.2	76.5	47.5	68.1	85.1	50.5
5-14 years	25.6	31.8	19.1	24.2	30.1	18.1	31.4	39.1	23.5	35.7	45.6	25.6
15-24 years	101.6	150.5	51.7	98.3	145.3	50.0	116.6	174.3	59.2	128.6	194.9	64.0
25-34 years	131.4	189.1	73.6	116.0	166.7	64.2	212.6	314.2	120.4	248.7	370.3	140.1
35-44 years	211.8	290.4	135.4	183.2	251.1	115.7	386.6	550.4	247.1	467.2	673.5	295.0
45-54 years	498.9	638.0	367.3	454.2	577.7	335.0	778.7	1,044.5	556.0	913.3	1,244.4	644.4
55-59 years	966.9	1,266.1	694.7	915.5	1,205.4	647.6	1,329.2	1,720.0	1,007.9	1,510.8	1,936.8	1,153.2
60-64 years	1,532.5	2,002.0	1,124.2	1,462.7	1,916.8	1,064.8	2,070.3	2,691.1	1,567.3	2,374.5	3,070.3	1,806.1
65-69 years	2,252.2	2,939.0	1,679.8	2,192.4	2,878.8	1,615.9	2,750.0	3,458.2	2,192.3	3,121.6	3,923.9	2,499.0
70-74 years	3,413.5	4,576.1	2,543.8	3,366.1	4,534.7	2,488.7	3,835.9	4,954.4	3,030.6	4,267.8	5,548.9	3,371.1
75-79 years	5,105.8	6,871.5	3,967.8	5,080.0	6,865.1	3,933.5	5,352.2	6,960.0	4,288.2	5,972.0	7,866.7	4,775.4
80-84 years	8,168.3	10,672.7	6,836.8	8,122.7	10,638.0	6,793.0	8,663.3	10,927.3	7,331.6	9,559.2	12,045.5	8,165.6
85 years and over	15,405.7	18,037.2	14,376.5	15,698.5	18,456.4	14,641.8	12,431.9	14,385.5	11,500.0	12,868.8	14,956.5	11,921.1

[1] Figures for age not stated are included in "All ages" but are not distributed among age groups.
[2] Death rates under 1 year (based on population estimates) differ from infant mortality rates (based on live births); see table 11 for infant mortality rates and Technical notes for discussion of the difference.

Table 5. Death rates by age, race, and sex and age-adjusted death rates by race and sex: United States, 1960, 1970, and 1980-87

[Provisional data for 1986 and 1987 based on a 10-percent sample of deaths; for all other years, based on final data. Data for 1970 and 1980-85 exclude deaths of nonresidents of the United States. Rates per 100,000 population in specified group based on populations enumerated as of April 1 for census years and estimated as of July 1 for all other years. For method of computation of age-adjusted rates, information on standard errors of the estimates, and further discussion, see Technical notes]

Race, sex, and year	All ages[1]	Under 1 year[2]	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over	Age-adjusted rate
All races													
1987	874.0	1,006.5	51.6	25.6	101.6	131.4	211.8	498.9	1,246.8	2,763.6	6,266.1	15,405.7	536.2
1986[3]	870.8	1,036.7	50.8	26.4	102.6	130.2	212.5	504.6	1,259.0	2,787.8	6,316.4	15,291.1	540.2
1985[3]	873.9	1,067.8	51.4	26.3	95.9	123.4	207.2	516.3	1,282.7	2,838.6	6,445.1	15,480.3	546.1
1984[3]	862.3	1,085.6	51.9	26.7	96.8	121.1	204.8	521.1	1,287.8	2,848.1	6,399.3	15,223.6	545.9
1983[3]	862.8	1,107.3	55.9	26.9	96.0	121.4	201.9	535.7	1,299.5	2,874.3	6,441.5	15,168.0	550.5
1982[3]	852.0	1,164.2	57.6	28.3	101.0	125.2	207.4	549.7	1,297.9	2,885.2	6,329.8	15,048.3	553.8
1981[3]	862.4	1,207.3	60.2	29.4	107.1	132.1	221.3	573.5	1,322.1	2,922.3	6,429.9	15,379.7	568.2
1980[3]	878.3	1,288.3	63.9	30.6	115.4	135.5	227.9	584.0	1,346.3	2,994.9	6,692.6	15,980.3	585.8
1970[3]	945.3	2,142.4	84.5	41.3	127.7	157.4	314.5	730.0	1,658.8	3,582.7	8,004.4	16,344.9	714.3
1960	954.7	2,696.4	109.1	46.6	106.3	146.4	299.4	756.0	1,735.1	3,822.1	8,745.2	19,857.5	760.9
Male													
1987	935.1	1,122.7	58.4	31.8	150.5	189.1	290.4	638.0	1,625.8	3,635.7	8,206.1	18,037.2	698.6
1986[3]	937.8	1,156.7	56.1	32.0	151.5	189.9	286.7	666.8	1,647.9	3,660.4	8,296.8	18,167.9	707.1
1985[3]	945.0	1,197.0	58.1	31.6	141.1	178.0	278.3	669.0	1,692.6	3,787.7	8,504.2	18,325.1	716.8
1984[3]	935.9	1,198.2	57.0	32.1	141.6	173.9	270.2	676.6	1,705.2	3,813.0	8,445.9	18,119.1	716.7
1983[3]	942.6	1,223.7	63.3	32.5	140.4	174.6	265.8	694.5	1,725.6	3,885.4	8,539.1	17,977.4	725.3
1982[3]	938.0	1,291.5	63.3	34.1	149.2	180.6	272.6	720.4	1,736.1	3,929.2	8,391.4	17,782.0	733.1
1981[3]	954.5	1,331.8	67.3	35.7	158.3	190.6	291.9	751.7	1,774.7	3,994.6	8,519.6	18,138.2	753.3
1980[3]	976.9	1,428.5	72.6	36.7	172.3	196.1	299.2	767.3	1,815.1	4,105.2	8,816.7	18,801.1	777.2
1970[3]	1,090.3	2,410.0	93.2	50.5	188.5	215.3	402.6	958.5	2,282.7	4,873.8	10,010.2	17,821.5	931.6
1960	1,104.5	3,059.3	119.5	55.7	152.1	187.9	372.8	992.2	2,309.5	4,914.4	10,178.4	21,186.3	949.3
Female													
1987	815.9	883.8	44.4	19.1	51.7	73.6	135.4	367.3	909.6	2,070.4	5,102.4	14,376.5	404.5
1986[3]	807.2	911.5	45.2	20.6	52.7	70.4	140.4	351.5	913.7	2,098.3	5,132.7	14,154.2	405.4
1985[3]	806.6	932.4	44.5	20.8	49.9	68.9	138.3	372.5	919.0	2,094.7	5,219.9	14,343.2	409.4
1984[3]	792.7	967.5	46.5	21.1	51.1	68.5	141.5	374.6	918.4	2,096.4	5,188.2	14,053.9	409.7
1983[3]	787.4	985.4	48.3	21.0	50.7	68.9	140.2	386.0	923.8	2,092.3	5,200.0	14,010.6	411.5
1982[3]	770.7	1,030.8	51.6	22.3	51.6	70.4	144.4	389.9	913.9	2,084.7	5,120.7	13,895.2	411.2
1981[3]	775.4	1,076.7	52.8	22.8	54.8	74.3	153.2	406.9	925.2	2,100.6	5,201.0	14,202.5	420.4
1980[3]	785.3	1,141.7	54.7	24.2	57.5	75.9	159.3	412.9	934.3	2,144.7	5,440.1	14,746.9	432.6
1970[3]	807.8	1,863.7	75.4	31.8	68.1	101.6	231.1	517.2	1,098.9	2,579.7	6,677.6	15,518.0	532.5
1960	809.2	2,321.3	98.4	37.3	61.3	106.6	229.4	526.7	1,196.4	2,871.8	7,633.1	19,008.4	590.6
White													
1987	900.2	836.9	49.1	24.2	98.3	116.0	183.2	454.2	1,187.9	2,711.3	6,243.7	15,698.5	514.0
1986[3]	895.4	877.3	45.7	24.5	99.6	114.5	187.0	460.2	1,201.9	2,734.8	6,287.0	15,503.3	518.2
1985[3]	897.1	916.3	46.2	24.8	92.9	108.4	181.0	471.5	1,218.7	2,772.8	6,406.8	15,757.0	523.1
1984[3]	885.2	931.8	46.9	25.4	94.7	107.2	179.1	477.1	1,223.7	2,784.6	6,367.2	15,508.3	523.6
1983[3]	884.6	948.1	50.8	25.6	93.2	107.6	177.8	490.8	1,233.0	2,808.0	6,415.6	15,477.4	528.0
1982[3]	872.9	1,018.5	52.8	27.0	98.3	110.2	182.7	504.0	1,233.3	2,822.3	6,329.3	15,296.9	531.8
1981[3]	880.3	1,062.0	54.3	28.0	104.6	116.2	192.5	524.9	1,255.7	2,855.9	6,423.4	15,628.0	544.6
1980[3]	892.5	1,099.9	57.9	29.1	112.0	118.4	197.2	531.6	1,276.7	2,921.1	6,664.9	16,220.0	559.4
1970[3]	946.3	1,869.7	75.1	39.1	115.8	129.9	267.0	666.2	1,577.1	3,490.1	8,043.3	16,889.7	679.6
1960	947.8	2,357.7	95.2	43.9	99.1	123.6	260.4	692.3	1,632.8	3,739.8	8,827.2	20,354.5	727.0
White, male													
1987	951.6	938.7	54.2	30.1	145.3	166.7	251.1	577.7	1,554.7	3,585.7	8,200.1	18,456.4	671.0
1986[3]	955.3	989.7	51.0	29.9	146.3	167.3	250.8	607.4	1,579.8	3,615.5	8,304.9	18,536.5	680.7
1985[3]	960.0	1,038.9	52.4	29.9	136.3	157.1	241.4	608.8	1,614.3	3,716.8	8,500.4	18,788.9	688.7
1984[3]	951.1	1,038.4	51.8	30.5	138.8	154.3	235.1	617.9	1,625.5	3,745.3	8,459.1	18,552.7	689.9
1983[3]	957.4	1,052.9	57.3	31.1	137.0	154.8	232.9	636.5	1,642.9	3,816.1	8,556.9	18,443.3	698.4
1982[3]	951.8	1,135.5	58.2	32.5	145.6	158.7	238.6	659.9	1,654.6	3,859.8	8,444.7	18,123.1	706.0
1981[3]	965.1	1,182.0	60.5	34.2	154.5	167.3	252.4	686.5	1,692.0	3,926.9	8,565.2	18,454.0	724.4
1980[3]	983.3	1,230.3	66.1	35.0	167.0	171.3	257.4	698.9	1,728.5	4,035.7	8,829.8	19,097.3	745.3
1970[3]	1,086.7	2,113.2	83.6	48.0	170.8	176.6	343.5	882.9	2,202.6	4,810.1	10,098.8	18,551.7	893.4
1960	1,098.5	2,694.1	104.9	52.7	143.7	163.2	332.6	932.2	2,225.2	4,848.4	10,299.6	21,750.0	917.7
White, female													
1987	851.0	729.7	43.7	18.1	50.0	64.2	115.7	335.0	857.8	2,012.4	5,075.9	14,641.8	386.9
1986[3]	838.3	758.2	40.2	18.8	51.6	60.6	123.7	318.6	862.8	2,035.6	5,087.4	14,327.7	387.0
1985[3]	837.1	786.9	39.7	19.4	48.4	58.9	121.2	339.5	864.1	2,028.3	5,171.4	14,579.4	390.6
1984[3]	822.3	818.5	41.6	20.0	49.6	59.5	123.9	341.9	864.9	2,032.5	5,140.0	14,319.6	391.3
1983[3]	815.3	837.6	43.9	19.7	48.3	60.1	123.4	351.0	867.8	2,024.7	5,162.2	14,278.3	392.7
1982[3]	797.9	895.2	47.0	21.2	49.5	61.3	127.7	355.1	859.8	2,022.9	5,100.7	14,123.9	393.3
1981[3]	799.6	935.4	47.7	21.6	53.2	64.7	133.6	370.9	869.4	2,032.8	5,176.3	14,438.2	401.4
1980[3]	806.1	962.5	49.3	22.9	55.5	65.4	138.2	372.7	876.2	2,066.6	5,401.7	14,979.6	411.1
1970[3]	812.6	1,614.6	66.1	29.9	61.6	84.1	193.3	462.9	1,014.9	2,470.7	6,698.7	15,980.2	501.7
1960	800.9	2,007.7	85.2	34.7	54.9	85.0	191.1	458.8	1,078.9	2,779.3	7,696.6	19,477.7	555.0

See footnotes at end of table.

Table 5. Death rates by age, race, and sex and age-adjusted death rates by race and sex: United States, 1960, 1970, and 1980-87—Con.

[Provisional data for 1986 and 1987 based on a 10-percent sample of deaths; for all other years, based on final data. Data for 1970 and 1980-85 exclude deaths of nonresidents of the United States. Rates per 100,000 population in specified group based on populations enumerated as of April 1 for census years and estimated as of July 1 for all other years. For method of computation of age-adjusted rates, information on standard errors of the estimates, and further discussion, see Technical notes]

Race, sex, and year	All ages[1]	Under 1 year[2]	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over	Age-adjusted rate
All other													
1987	730.6	1,728.0	62.2	31.4	116.6	212.6	386.6	778.7	1,680.6	3,211.9	6,493.0	12,431.9	674.4
1986[3]	733.9	1,723.0	72.0	34.6	116.7	214.2	370.5	785.3	1,692.2	3,245.5	6,607.7	13,048.4	680.5
1985[3]	743.3	1,720.8	73.8	32.8	110.3	204.5	372.4	805.2	1,781.2	3,412.8	6,827.6	12,516.1	697.8
1984[3]	731.5	1,755.4	73.6	32.4	106.7	197.3	369.1	811.2	1,797.7	3,408.2	6,721.9	11,996.5	694.5
1983[3]	736.6	1,802.0	78.5	32.7	109.4	198.6	357.6	838.7	1,841.1	3,464.5	6,695.1	11,796.8	703.1
1982[3]	728.9	1,745.5	78.4	34.3	114.4	210.3	367.1	868.2	1,840.0	3,458.5	6,343.4	12,159.6	704.6
1981[3]	755.0	1,786.5	87.3	35.6	120.0	226.2	408.2	921.0	1,890.8	3,531.9	6,478.6	12,547.9	732.6
1980[3]	791.7	2,148.5	91.4	37.4	133.6	239.1	428.9	967.7	1,954.9	3,671.0	6,984.3	13,227.1	774.2
1970[3]	938.4	3,597.1	134.1	53.7	203.6	348.7	664.3	1,290.9	2,431.1	4,488.4	7,511.2	10,750.3	983.4
1960[3]	1,008.5	4,626.4	190.8	64.3	158.2	318.6	633.4	1,342.9	2,774.6	4,784.9	7,631.1	13,907.6	1,046.1
All other, male													
1987	843.0	1,920.1	76.5	39.1	174.3	314.2	550.4	1,044.5	2,178.1	4,077.9	8,262.7	14,385.5	878.5
1986[3]	838.2	1,884.8	77.6	40.7	176.1	318.5	527.7	1,072.9	2,192.4	4,066.2	8,219.8	14,703.7	880.3
1985[3]	858.6	1,888.0	82.8	38.7	164.2	298.5	529.9	1,087.4	2,335.6	4,424.9	8,540.1	14,376.6	910.4
1984[3]	846.4	1,905.2	79.5	39.0	155.7	289.1	513.2	1,095.0	2,370.5	4,426.4	8,320.3	14,128.4	904.4
1983[3]	854.9	1,976.3	89.5	38.7	157.2	292.9	495.5	1,117.4	2,431.9	4,521.8	8,398.0	13,478.4	916.3
1982[3]	854.8	1,921.1	85.7	41.2	167.8	313.0	509.5	1,176.7	2,457.7	4,571.7	7,918.1	14,386.4	928.4
1981[3]	889.4	1,934.3	98.8	43.0	178.5	338.8	567.5	1,255.7	2,522.6	4,626.0	8,056.0	14,685.9	964.3
1980[3]	936.5	2,350.2	103.0	44.9	201.6	357.8	594.2	1,309.1	2,606.3	4,747.2	8,688.5	15,774.9	1,015.1
1970[3]	1,115.9	4,020.0	144.7	65.0	304.6	504.1	873.5	1,646.1	3,046.6	5,474.4	8,981.0	11,405.2	1,231.4
1960[3]	1,152.0	5,189.4	207.3	75.2	213.8	386.4	729.2	1,551.0	3,151.5	5,664.0	8,662.6	15,238.7	1,211.0
All other, female													
1987	627.8	1,531.1	47.5	23.5	59.2	120.4	247.1	556.0	1,274.3	2,555.5	5,368.1	11,500.0	511.6
1986[3]	638.6	1,557.5	66.3	28.3	57.7	119.8	236.9	545.9	1,283.5	2,627.1	5,582.7	12,245.5	521.0
1985[3]	638.1	1,550.3	64.6	26.7	57.1	120.0	238.7	570.7	1,329.3	2,659.2	5,741.9	11,688.6	530.0
1984[3]	627.0	1,603.0	67.4	25.7	58.4	115.3	246.3	575.9	1,328.8	2,648.8	5,691.1	11,104.7	529.0
1983[3]	629.2	1,618.9	67.2	26.5	62.4	115.1	240.8	607.5	1,359.4	2,682.6	5,607.8	10,944.5	535.2
1982[3]	614.5	1,560.7	71.0	27.3	61.7	119.1	245.4	615.7	1,346.8	2,637.3	5,329.5	11,130.5	529.3
1981[3]	633.0	1,634.5	75.6	28.2	62.8	127.3	272.4	646.1	1,383.1	2,715.2	5,463.9	11,371.7	549.4
1980[3]	660.6	1,944.1	79.5	29.8	68.0	135.7	288.3	687.8	1,423.1	2,856.2	5,863.3	11,922.3	582.6
1970[3]	775.3	3,169.4	123.3	42.3	108.8	215.7	490.5	979.4	1,886.9	3,675.6	6,392.6	10,288.9	770.8
1960[3]	872.6	4,067.1	174.4	53.4	106.1	260.0	547.3	1,144.9	2,409.7	3,981.4	6,708.4	12,871.2	893.3
Black													
1987	843.6	2,001.7	68.1	35.7	128.6	248.7	467.2	913.3	1,922.3	3,609.4	7,209.9	12,868.8	767.1
1986[3]	842.1	1,952.1	80.2	36.9	124.0	252.4	440.7	923.7	1,934.9	3,634.5	7,209.8	13,563.4	768.7
1985[3]	845.7	1,951.1	80.0	34.8	115.9	235.4	443.7	935.7	2,007.5	3,759.0	7,407.4	13,076.0	779.9
1984[3]	828.5	1,964.1	78.8	35.2	111.9	226.7	435.9	932.4	2,016.0	3,740.0	7,254.4	12,468.9	771.9
1983[3]	830.5	2,032.9	85.3	34.5	114.4	226.1	417.2	956.6	2,059.7	3,773.6	7,215.8	12,320.9	777.9
1982[3]	819.2	1,963.2	84.9	36.9	118.7	240.4	429.9	987.3	2,053.9	3,769.2	6,773.3	12,792.4	778.7
1981[3]	841.7	1,992.7	93.6	37.7	124.3	255.9	470.5	1,041.1	2,094.4	3,816.3	6,904.8	13,073.7	803.9
1980[3]	875.4	2,356.6	97.6	39.0	138.3	269.5	489.9	1,087.6	2,146.6	3,932.9	7,382.6	13,610.8	842.5
1970[3]	999.3	3,835.6	140.0	55.5	212.4	381.2	724.9	1,383.8	2,570.6	4,719.4	7,860.7	11,300.5	1,044.0
1960[3]	1,038.6	4,740.9	190.9	64.5	157.9	333.0	659.0	1,391.7	2,899.1	4,880.2	7,594.9	13,828.4	1,073.3
Black, male													
1987	973.1	2,218.0	85.1	45.6	194.9	370.3	673.5	1,244.4	2,473.5	4,592.0	9,238.8	14,956.5	1,005.4
1986[3]	964.0	2,140.4	84.0	44.2	189.9	379.0	635.9	1,282.1	2,499.5	4,561.7	9,103.4	15,507.5	1,003.4
1985[3]	976.8	2,134.8	89.0	41.3	174.1	347.4	641.8	1,283.3	2,623.1	4,888.7	9,298.4	15,046.2	1,024.0
1984[3]	958.1	2,136.6	85.2	42.4	163.9	335.6	616.0	1,273.5	2,658.3	4,874.5	9,023.0	14,642.9	1,011.7
1983[3]	963.3	2,243.4	96.8	40.9	165.0	335.8	586.5	1,287.3	2,713.1	4,949.3	9,100.0	14,155.6	1,019.6
1982[3]	960.4	2,168.9	93.4	44.4	175.4	360.3	606.7	1,352.1	2,758.1	5,040.1	8,477.2	15,117.9	1,035.0
1981[3]	991.6	2,164.8	105.3	45.2	186.7	387.1	667.9	1,432.5	2,804.1	5,046.3	8,635.1	15,396.4	1,067.7
1980[3]	1,034.1	2,586.7	110.5	47.4	209.1	407.3	689.8	1,479.9	2,873.0	5,131.1	9,231.6	16,098.8	1,112.8
1970[3]	1,186.6	4,298.9	150.5	67.1	320.6	559.5	956.6	1,777.5	3,256.9	5,803.2	9,454.9	12,222.3	1,318.6
1960[3]	1,181.7	5,306.8	208.5	75.1	212.0	402.5	762.0	1,624.8	3,316.4	5,798.7	8,605.1	14,844.8	1,246.1
Black, female													
1987	726.7	1,780.9	50.5	25.6	64.0	140.1	295.0	644.4	1,465.6	2,879.4	5,979.6	11,921.1	579.9
1986[3]	732.3	1,759.9	76.2	29.3	59.9	139.7	277.5	633.7	1,471.4	2,955.7	6,060.5	12,671.2	585.0
1985[3]	727.7	1,756.6	70.8	28.1	59.5	136.3	278.4	654.0	1,501.7	2,925.7	6,252.0	12,154.7	589.1
1984[3]	712.0	1,789.1	72.2	27.8	61.6	130.6	285.7	655.0	1,489.7	2,907.4	6,184.1	11,439.1	585.3
1983[3]	711.2	1,818.6	73.6	28.0	65.6	130.0	276.1	685.8	1,526.3	2,930.6	6,064.6	11,329.5	590.4
1982[3]	692.4	1,760.1	76.4	29.4	63.5	134.8	282.7	693.1	1,498.3	2,863.0	5,708.5	11,660.0	581.4
1981[3]	707.3	1,823.4	81.6	30.0	64.0	141.1	306.1	723.9	1,527.9	2,929.7	5,822.3	11,933.0	599.1
1980[3]	733.3	2,123.7	84.4	30.5	70.5	150.0	323.9	768.2	1,561.0	3,057.4	6,212.1	12,367.2	631.1
1970[3]	829.2	3,368.8	129.4	43.8	111.9	231.0	533.0	1,043.9	1,986.2	3,860.9	6,691.5	10,706.6	814.4
1960[3]	905.0	4,162.2	173.3	53.8	107.5	273.2	568.5	1,177.0	2,510.9	4,064.2	6,730.0	13,052.6	916.9

[1] Figures for age not stated are included in "All ages" but not distributed among age groups.
[2] Death rates under 1 year (based on population) differ from infant mortality rates (based on live births); see table 11 for infant mortality rates and Technical notes for discussion of the difference.
[3] Data are final; see Technical notes.

Table 6. Provisional abridged life table for the total population: United States, 1987

[Provisional data based on a 10-percent sample of deaths. For further discussion see Technical notes]

Age interval	Proportion dying	Of 100,000 born alive		Stationary population		Average remaining lifetime
Period of life between 2 exact ages stated in years (1)	Proportion of persons alive at beginning of age interval dying during interval (2)	Number living at beginning of age interval (3)	Number dying during age interval (4)	In the age interval (5)	In this and all subsequent age intervals (6)	Average number of years of life remaining at beginning of age interval (7)
x *to* x+n	$_nq_x$	l_x	$_nd_x$	$_nL_x$	T_x	$\mathring{e}_x$
0-1	0.0101	100,000	1,012	99,129	7,493,954	74.9
1-5	0.0020	98,988	201	395,481	7,394,825	74.7
5-10	0.0012	98,787	115	493,622	6,999,344	70.9
10-15	0.0014	98,672	136	493,096	6,505,722	65.9
15-20	0.0043	98,536	422	491,723	6,012,626	61.0
20-25	0.0058	98,114	567	489,181	5,520,903	56.3
25-30	0.0061	97,547	595	486,246	5,031,722	51.6
30-35	0.0070	96,952	680	483,100	4,545,476	46.9
35-40	0.0093	96,272	895	479,249	4,062,376	42.2
40-45	0.0122	95,377	1,160	474,192	3,583,127	37.6
45-50	0.0193	94,217	1,821	466,866	3,108,935	33.0
50-55	0.0306	92,396	2,824	455,363	2,642,069	28.6
55-60	0.0473	89,572	4,239	437,871	2,186,706	24.4
60-65	0.0741	85,333	6,325	411,709	1,748,835	20.5
65-70	0.1071	79,008	8,461	374,801	1,337,126	16.9
70-75	0.1583	70,547	11,168	325,786	962,325	13.6
75-80	0.2280	59,379	13,539	263,873	636,539	10.7
80-85	0.3410	45,840	15,632	190,332	372,666	8.1
85 and over	1.0000	30,208	30,208	182,334	182,334	6.0

Table 7. Average length of life in years by race and sex: United States, 1950, 1960, 1970, 1975-87

[Provisional data for 1986 and 1987 based on a 10-percent sample of deaths; for all other years, based on final data. For further discussion see Technical notes]

Year	All races			White			All other					
							Total			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
1987	74.9	71.5	78.3	75.5	72.1	78.8	71.6	67.6	75.4	69.7	65.4	73.8
1986[1]	74.9	71.3	78.3	75.4	72.0	78.9	71.4	67.6	75.1	69.6	65.5	73.6
1985[1]	74.7	71.2	78.2	75.3	71.9	78.7	71.2	67.2	75.0	69.5	65.3	73.5
1984[1]	74.7	71.2	78.2	75.3	71.8	78.7	71.3	67.4	75.0	69.7	65.6	73.7
1983[1]	74.6	71.0	78.1	75.2	71.7	78.7	71.1	67.2	74.9	69.6	65.4	73.6
1982[1]	74.5	70.9	78.1	75.1	71.5	78.7	71.0	66.8	75.0	69.4	65.1	73.7
1981[1]	74.2	70.4	77.8	74.8	71.1	78.4	70.3	66.1	74.4	68.9	64.5	73.2
1980[1]	73.7	70.0	77.4	74.4	70.7	78.1	69.5	65.3	73.6	68.1	63.8	72.5
1979[1]	73.9	70.0	77.8	74.6	70.8	78.4	69.8	65.4	74.1	68.5	64.0	72.9
1978[1]	73.5	69.6	77.3	74.1	70.4	78.0	69.3	65.0	73.5	68.1	63.7	72.4
1977[1]	73.3	69.5	77.2	74.0	70.2	77.9	68.9	64.7	73.2	67.7	63.4	72.0
1976[1]	72.9	69.1	76.8	73.6	69.9	77.5	68.4	64.2	72.7	67.2	62.9	71.6
1975[1]	72.6	68.8	76.6	73.4	69.5	77.3	68.0	63.7	72.4	66.8	62.4	71.3
1970[1]	70.8	67.1	74.7	71.7	68.0	75.6	65.3	61.3	69.4	64.1	60.0	68.3
1960[1]	69.7	66.6	73.1	70.6	67.4	74.1	63.6	61.1	66.3	---	---	---
1950[1]	68.2	65.6	71.1	69.1	66.5	72.2	60.8	59.1	62.9	---	---	---

[1] Data are final; see Technical notes.

Table 8. Age-specific and age-adjusted death rates for the 15 leading causes and selected components: United States, 1986 and 1987

[Provisional data based on a 10-percent sample of deaths. Rates per 100,000 population in specified group. For information on standard errors of the estimates and further discussion, see Technical notes]

Cause of death (Ninth Revision, International Classification of Diseases, 1975)	Year	Age											
		All ages[1]	Under 1 year[2]	1-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over	Age-adjusted rate[3]
All causes	1987	874.0	1,006.5	33.4	101.6	131.4	211.8	498.9	1,246.8	2,763.6	6,266.1	15,405.7	536.2
	1986	870.8	1,036.7	33.7	102.6	130.2	212.5	504.6	1,259.0	2,787.8	6,316.4	15,291.1	540.2
Diseases of heart .390-398,402,404-429	1987	313.4	23.9	1.3	2.9	7.5	34.4	140.7	408.9	1,019.5	2,556.3	7,122.1	169.9
	1986	318.7	29.2	1.3	2.4	7.6	36.9	142.8	430.9	1,047.6	2,649.2	7,169.2	175.4
Rheumatic fever and rheumatic heart disease .390-398	1987	2.5	-	0.0	0.2	0.3	0.6	2.3	4.7	10.9	17.7	20.6	1.7
	1986	2.7	-	0.1	0.1	0.3	0.6	2.2	5.1	11.1	19.8	25.0	1.8
Hypertensive heart disease .402	1987	8.3	-	-	0.1	0.2	1.8	4.8	14.8	28.0	64.6	145.1	4.9
	1986	8.2	-	-	0.0	0.4	1.4	5.0	13.5	29.7	60.8	158.8	4.9
Hypertensive heart and renal disease .404	1987	1.1	-	-	-	0.0	0.2	0.3	1.2	3.6	10.4	23.7	0.6
	1986	1.1	-	-	-	-	0.1	0.4	0.5	2.9	9.7	35.4	0.5
Ischemic heart disease .410-414	1987	211.0	0.3	0.1	0.5	2.3	20.1	91.8	278.2	701.5	1,763.9	4,700.0	114.0
	1986	217.4	0.3	0.1	0.3	2.5	22.6	96.2	297.9	737.9	1,840.2	4,749.3	119.6
Acute myocardial infarction .410	1987	104.0	0.3	0.1	0.4	1.3	12.2	57.6	163.7	397.0	873.6	1,649.5	60.9
	1986	109.1	0.3	0.1	0.2	1.7	13.9	61.1	179.6	423.1	923.8	1,673.8	65.0
Other acute and subacute forms of ischemic heart disease .411	1987	1.5	-	-	-	0.1	0.3	1.1	2.4	6.3	8.9	22.0	0.9
	1986	1.5	-	-	-	0.0	0.4	1.1	3.0	5.5	10.7	20.4	0.9
Angina pectoris .413	1987	0.5	-	-	-	0.0	-	-	0.7	1.5	5.8	12.6	0.3
	1986	0.4	-	-	-	-	0.0	0.1	0.5	1.7	4.2	8.6	0.2
Old myocardial infarction and other forms of chronic ischemic heart disease .412,414	1987	105.0	-	0.0	0.2	0.8	7.6	33.2	111.4	296.6	875.6	3,016.0	51.9
	1986	106.4	-	0.0	0.1	0.8	8.2	33.9	114.8	307.6	901.4	3,046.5	53.4
Other diseases of endocardium .424	1987	4.6	0.5	0.1	0.0	0.3	0.8	1.8	4.6	13.7	38.8	111.6	2.4
	1986	4.6	-	0.0	0.1	0.4	0.5	1.3	4.7	13.7	44.7	106.6	2.4
All other forms of heart disease .415-423,425-429	1987	85.8	23.1	1.1	2.1	4.4	10.9	39.7	105.4	261.9	660.9	2,120.7	46.4
	1986	84.7	29.0	1.1	1.9	4.1	11.8	37.8	109.2	252.3	673.8	2,094.1	46.3
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues .140-208	1987	196.1	3.7	3.7	5.1	12.5	44.4	164.5	448.5	845.8	1,282.8	1,631.7	133.1
	1986	193.3	1.6	3.6	5.4	12.2	46.3	164.1	447.1	841.0	1,261.4	1,602.3	132.5
Malignant neoplasms of lip, oral cavity, and pharynx .140-149	1987	3.4	-	-	0.1	0.1	0.9	4.3	9.6	13.8	17.7	22.7	2.5
	1986	3.6	-	0.0	0.1	0.2	0.9	4.2	11.2	13.9	16.7	30.0	2.6
Malignant neoplasms of digestive organs and peritoneum .150-159	1987	47.7	0.3	0.1	0.2	1.6	7.7	33.2	98.6	202.6	351.4	517.3	30.5
	1986	48.7	0.5	0.1	0.3	1.4	7.4	33.2	98.9	211.0	364.6	536.1	31.2
Malignant neoplasms of respiratory and intrathoracic organs .160-165	1987	54.8	-	0.0	0.1	0.7	7.8	50.2	159.3	280.3	302.0	208.9	39.3
	1986	53.1	-	0.0	0.2	0.4	7.2	50.4	156.2	268.9	295.5	206.0	38.3
Malignant neoplasm of breast .174-175	1987	17.0	-	-	0.0	1.8	8.8	24.0	42.7	60.6	85.5	136.7	12.6
	1986	17.1	-	-	0.0	1.8	10.3	22.3	45.1	62.7	81.1	135.2	12.8
Malignant neoplasms of genital organs .179-187	1987	21.1	-	-	0.4	1.6	3.5	11.5	31.9	86.9	178.2	267.2	12.8
	1986	20.9	-	0.0	0.3	1.0	4.4	11.4	33.3	90.0	174.1	247.9	12.9
Malignant neoplasms of urinary organs .188-189	1987	8.2	-	0.1	0.1	0.1	1.1	3.9	16.7	33.8	64.5	96.3	5.0
	1986	8.1	-	0.1	0.0	0.2	1.2	6.0	14.3	33.8	60.2	107.3	5.1
Malignant neoplasms of all other and unspecified sites .170-173,190-199	1987	25.3	1.9	1.7	1.7	3.6	8.7	23.6	57.5	97.5	149.9	211.7	17.8
	1986	24.3	0.5	1.6	2.3	3.7	8.9	23.5	57.3	91.8	144.8	191.7	17.5
Leukemia .204-208	1987	7.4	1.1	1.5	1.3	1.3	2.6	4.7	11.2	24.7	54.1	78.1	5.0
	1986	7.1	0.8	1.3	1.2	1.5	2.6	3.9	11.2	26.5	50.7	65.1	4.8
Other malignant neoplasms of lymphatic and hematopoietic tissues .200-203	1987	11.2	0.5	0.2	1.2	1.6	3.2	9.2	21.0	45.7	79.6	93.1	7.6
	1986	10.5	-	0.4	1.0	1.8	3.2	9.2	19.8	42.5	73.5	83.0	7.2
Cerebrovascular diseases .430-438	1987	61.3	2.4	0.2	0.9	2.2	6.6	20.8	51.8	153.4	563.0	1,734.2	30.1
	1986	61.3	1.3	0.2	0.6	2.1	7.0	19.7	51.0	162.4	566.2	1,750.0	30.4
Accidents and adverse effects .E800-E949	1987	39.0	21.2	14.5	50.2	37.7	30.0	31.6	35.4	50.3	102.5	258.5	34.6
	1986	39.7	22.8	14.8	52.3	39.0	31.3	32.0	34.5	49.9	104.5	248.2	35.5
Motor vehicle accidents .E810-E825	1987	20.1	4.2	7.2	38.4	23.8	16.8	16.6	16.6	19.0	30.6	24.8	19.7
	1986	20.1	4.3	6.9	39.6	24.5	16.9	16.5	15.4	17.6	27.7	29.0	19.8
All other accidents and adverse effects .E800-E807,E826-E949	1987	18.9	17.0	7.4	11.8	13.9	13.1	14.9	18.8	31.4	71.8	233.7	14.9
	1986	19.5	18.5	8.0	12.8	14.5	14.3	15.5	19.1	32.3	76.8	219.6	15.7

Chronic obstructive pulmonary diseases and allied conditions .490-496	1987	32.2	2.1	0.3	0.5	0.4	1.8	7.7	48.0	146.4	305.5	363.1	18.7
	1986	31.3	2.1	0.4	0.5	0.5	1.3	10.0	46.0	146.7	290.2	361.9	18.5
Pneumonia and influenza .480-487	1987	28.8	17.8	0.5	0.7	1.5	3.7	6.7	17.9	57.0	235.2	1,029.3	13.2
	1986	29.2	18.0	0.7	0.3	1.7	3.5	7.1	17.9	59.7	252.6	1,025.8	13.6
Diabetes mellitus .250	1987	15.6	-	0.1	0.4	1.2	3.3	9.5	27.1	60.4	121.6	207.2	9.6
	1986	15.1	-	0.1	0.5	1.8	3.4	9.3	25.4	56.7	120.9	202.8	9.4
Suicide .E950-E959	1987	12.7	...	0.4	12.8	14.8	14.9	15.5	17.8	19.9	29.2	22.0	11.7
	1986	13.1	...	0.6	12.7	15.4	16.1	15.9	17.4	20.4	28.8	23.2	12.0
Chronic liver disease and cirrhosis .571	1987	10.7	1.1	0.0	0.2	2.2	9.9	19.0	34.0	33.3	34.6	17.4	9.0
	1986	10.9	0.5	0.0	0.2	2.4	9.1	21.5	32.0	38.2	31.2	20.7	9.2
Atherosclerosis .440	1987	9.5	-	-	-	0.1	0.1	0.9	3.9	15.5	76.4	425.5	3.7
	1986	9.2	-	-	-	-	0.1	0.8	3.3	14.3	77.7	416.7	3.6
Nephritis, nephrotic syndrome, and nephrosis .580-589	1987	9.5	7.7	0.1	0.2	0.3	1.3	3.4	9.9	28.2	80.4	230.9	5.0
	1986	9.0	7.2	0.1	0.2	0.7	1.0	3.6	9.4	27.5	75.7	223.2	4.9
Homicide and legal intervention .E960-E978	1987	8.5	5.3	1.4	12.9	15.2	10.8	8.2	5.9	4.0	3.4	3.1	8.4
	1986	8.9	6.4	1.5	14.3	15.8	11.3	7.8	5.4	4.2	4.5	4.6	8.8
Septicemia .038	1987	8.1	4.2	0.2	0.3	0.7	1.6	2.9	8.9	25.1	66.1	187.0	4.4
	1986	7.7	8.3	0.1	0.1	0.6	1.4	3.5	8.2	23.3	64.4	178.8	4.3
Certain conditions originating in the perinatal period .760-779	1987	7.6	484.0	0.3	0.1	0.0	-	-	0.0	0.1	-	-	(4)
	1986	7.5	480.2	0.2	-	0.1	-	-	-	-	-	-	(4)
Congenital anomalies .740-759	1987	5.0	209.0	3.0	1.0	1.2	1.1	1.4	1.2	2.0	3.7	6.6	(4)
	1986	5.1	218.3	2.8	1.1	0.8	1.5	1.3	1.3	2.7	3.2	3.2	(4)

[1] Figures for age not stated are included in "All ages" but not distributed among age groups.
[2] Death rates under 1 year (based on population estimates) differ from infant mortality rates (based on live births); see table 12 for infant mortality rates by cause and Technical notes for discussion of the difference.
[3] For method of computation, see Technical notes.
[4] Because deaths from these causes occur primarily among infants, age-adjusted rates are not shown, see table 12.

Table 9. Deaths and death rates for 72 selected causes: United States, 1986 and 1987

[Provisional data based on a 10-percent sample of deaths. Rates per 100,000 population. Due to rounding of estimates, figures may not add to totals. For explanation of asterisk preceding cause-of-death codes, information on standard errors of the estimates, and further discussion, see Technical notes]

Cause of death (Ninth Revision, International Classification of Diseases, 1975)	Number		Rate	
	1987	1986	1987	1986
All causes	2,127,000	2,099,000	874.0	870.8
Shigellosis and amebiasis .004,006	10	20	0.0	0.0
Certain other intestinal infections .007-009	340	260	0.1	0.1
Tuberculosis .010-018	1,720	1,670	0.7	0.7
Tuberculosis of respiratory system .010-012	1,460	1,310	0.6	0.5
Other tuberculosis .013-018	260	360	0.1	0.1
Whooping cough .033	-	-	-	-
Streptococcal sore throat, scarlatina, and erysipelas .034-035	10	10	0.0	0.0
Meningococcal infection .036	210	310	0.1	0.1
Septicemia .038	19,810	18,640	8.1	7.7
Acute poliomyelitis .045	-	-	-	-
Measles .055	-	-	-	-
Viral hepatitis .070	1,470	1,110	0.6	0.5
Syphilis .090-097	100	90	0.0	0.0
All other infectious and parasitic diseases[1] .001-003,005,020-032,037,039-041,*042-*044,046-054, 056-066,071-088,098-139	19,160	9,030	7.9	3.7
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues .140-208	477,190	465,980	196.1	193.3
Malignant neoplasms of lip, oral cavity, and pharynx .140-149	8,240	8,630	3.4	3.6
Malignant neoplasms of digestive organs and peritoneum .150-159	116,200	117,420	47.7	48.7
Malignant neoplasms of respiratory and intrathoracic organs .160-165	133,400	127,970	54.8	53.1
Malignant neoplasm of breast .174-175	41,380	41,280	17.0	17.1
Malignant neoplasms of genital organs .179-187	51,380	50,270	21.1	20.9
Malignant neoplasms of urinary organs .188-189	19,850	19,430	8.2	8.1
Malignant neoplasms of all other and unspecified sites .170-173,190-199	61,510	58,700	25.3	24.3
Leukemia .204-208	17,960	17,030	7.4	7.1
Other malignant neoplasms of lymphatic and hematopoietic tissues .200-203	27,280	25,240	11.2	10.5
Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature .210-239	6,650	6,420	2.7	2.7
Diabetes mellitus .250	37,900	36,340	15.6	15.1
Nutritional deficiencies .260-269	2,800	2,750	1.2	1.1
Anemias .280-285	3,650	3,710	1.5	1.5
Meningitis .320-322	1,290	1,200	0.5	0.5
Major cardiovascular diseases .390-448	966,400	967,930	397.0	401.5
Diseases of heart .390-398,402,404-429	762,820	768,350	313.4	318.7
Rheumatic fever and rheumatic heart disease .390-398	6,140	6,440	2.5	2.7
Hypertensive heart disease .402	20,230	19,860	8.3	8.2
Hypertensive heart and renal disease .404	2,690	2,610	1.1	1.1
Ischemic heart disease .410-414	513,680	524,080	211.0	217.4
Acute myocardial infarction .410	253,140	263,050	104.0	109.1
Other acute and subacute forms of ischemic heart disease .411	3,530	3,550	1.5	1.5
Angina pectoris .413	1,330	1,070	0.5	0.4
Old myocardial infarction and other forms of chronic ischemic heart disease .412,414	255,680	256,410	105.0	106.4
Other diseases of endocardium .424	11,130	11,140	4.6	4.6
All other forms of heart disease .415-423,425-429	208,940	204,220	85.8	84.7
Hypertension with or without renal disease .401,403	7,990	7,580	3.3	3.1
Cerebrovascular diseases .430-438	149,220	147,790	61.3	61.3
Intracerebral and other intracranial hemorrhage .431-432	19,760	20,050	8.1	8.3
Cerebral thrombosis and unspecified occlusion of cerebral arteries .434.0,434.9	21,690	22,850	8.9	9.5
Cerebral embolism .434.1	690	780	0.3	0.3
All other and late effects of cerebrovascular diseases .430,433,435-438	107,070	104,100	44.0	43.2
Atherosclerosis .440	23,200	22,120	9.5	9.2
Other diseases of arteries, arterioles, and capillaries .441-448	23,190	22,090	9.5	9.2
Acute bronchitis and bronchiolitis .466	540	440	0.2	0.2
Pneumonia and influenza .480-487	70,120	70,500	28.8	29.2
Pneumonia .480-486	69,500	68,590	28.6	28.5
Influenza .487	610	1,920	0.3	0.8
Chronic obstructive pulmonary diseases and allied conditions .490-496	78,270	75,420	32.2	31.3
Bronchitis, chronic and unspecified .490-491	3,300	3,510	1.4	1.5
Emphysema .492	14,550	14,500	6.0	6 0
Asthma .493	4,030	3,670	1.7	1.5
Other chronic obstructive pulmonary diseases and allied conditions .494-496	56,380	53,750	23.2	22.3
Ulcer of stomach and duodenum .531-533	5,840	5,930	2.4	2.5
Appendicitis .540-543	500	550	0.2	0.2
Hernia of abdominal cavity and intestinal obstruction without mention of hernia .550-553,560	5,690	5,230	2.3	2.2
Chronic liver disease and cirrhosis .571	26,050	26,210	10.7	10.9
Cholelithiasis and other disorders of gallbladder .574-575	3,260	2,840	1.3	1.2
Nephritis, nephrotic syndrome, and nephrosis .580-589	23,040	21,790	9.5	9.0
Acute glomerulonephritis and nephrotic syndrome .580-581	370	270	0.2	0.1
Chronic glomerulonephritis, nephritis and nephropathy, not specified as acute or chronic, and renal sclerosis, unspecified .582-583,587	1,570	1,460	0.6	0.6

Table 9. Deaths and death rates for 72 selected causes: United States, 1986 and 1987—Con.

[Provisional data based on a 10-percent sample of deaths. Rates per 100,000 population. Due to rounding of estimates, figures may not add to totals. For explanation of asterisk preceding cause-of-death codes, information on standard errors of the estimates, and further discussion, see Technical notes]

Cause of death (Ninth Revision, International Classification of Diseases, 1975)	Number		Rate	
	1987	1986	1987	1986
Renal failure, disorders resulting from impaired renal function, and small kidney of unknown cause .584-586,588-589	21,100	20,060	8.7	8.3
Infections of kidney .590	1,840	2,010	0.8	0.8
Hyperplasia of prostate .600	520	590	0.2	0.2
Complications of pregnancy, childbirth, and the puerperium .630-676	240	250	0.1	0.1
Pregnancy with abortive outcome .630-638	40	60	0.0	0.0
Other complications of pregnancy, childbirth, and the puerperium .640-676	200	190	0.1	0.1
Congenital anomalies .740-759	12,130	12,230	5.0	5.1
Certain conditions originating in the perinatal period .760-779	18,460	18,050	7.6	7.5
Birth trauma, intrauterine hypoxia, birth asphyxia, and respiratory distress syndrome .767-769	4,490	4,750	1.8	2.0
Other conditions originating in the perinatal period .760-766,770-779	13,960	13,300	5.7	5.5
Symptoms, signs, and ill-defined conditions .780-799	31,290	32,960	12.9	13.7
All other diseases .Residual	161,570	157,430	66.4	65.3
Accidents and adverse effects .E800-E949	94,840	95,640	39.0	39.7
Motor vehicle accidents .E810-E825	48,950	48,560	20.1	20.1
All other accidents and adverse effects .E800-E807,E826-E949	45,890	47,080	18.9	19.5
Suicide .E950-E959	30,980	31,470	12.7	13.1
Homicide and legal intervention .E960-E978	20,580	21,400	8.5	8.9
All other external causes .E980-E999	2,820	2,880	1.2	1.2

[1] Beginning January 1987 includes data for the newly introduced category numbers *042-*044; see Technical notes.

Table 10. Deaths and death rates for Human immunodeficiency virus infection by age, race, and sex and age-adjusted rates by race and sex: United States, 1987

[Provisional data based on a 10-percent sample of deaths. Rates per 100,000 population in specified group. Due to rounding of estimates, figures may not add to totals. For information on standard errors of the estimates and further discussion see Technical notes. Data are based on deaths assigned to new category numbers *042-*044; see Technical notes]

Age	All races			White			All other					
							Total			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
	Number											
All ages	13,130	11,880	1,250	9,160	8,580	580	3,970	3,300	670	3,920	3,250	670
Under 15 years	210	90	120	130	60	70	80	30	50	80	30	50
15-24 years	570	530	40	360	350	10	210	180	30	210	180	30
25-34 years	5,040	4,400	630	3,410	3,090	320	1,630	1,310	310	1,610	1,290	310
35-44 years	4,560	4,230	320	3,110	3,030	80	1,440	1,200	240	1,420	1,180	240
45-54 years	1,900	1,840	60	1,440	1,410	30	450	420	30	440	410	30
55 years and over	850	770	80	690	620	70	160	150	10	160	150	10
Not stated	10	10	-	10	10	-	-	-	-	-	-	-
	Rate											
All ages	5.4	10.0	1.0	4.5	8.5	0.6	10.6	18.4	3.4	13.2	23.0	4.3
Under 15 years	0.4	0.3	0.5	0.3	0.3	0.3	0.8	0.6	1.0	1.0	0.7	1.3
15-24 years	1.5	2.7	0.2	1.1	2.2	0.1	3.1	5.3	0.9	3.8	6.6	1.1
25-34 years	11.6	20.3	2.9	9.4	16.8	1.8	23.6	39.9	8.6	29.8	50.6	10.9
35-44 years	13.3	25.0	1.8	10.6	20.6	0.5	29.8	54.0	9.2	38.9	71.0	12.1
45-54 years	8.2	16.3	0.5	7.2	14.3	0.3	14.0	28.8	1.7	17.7	36.7	2.2
55 years and over	1.6	3.4	0.3	1.5	3.1	0.3	2.9	6.3	0.3	3.5	7.7	0.4
Age-adjusted rate[1]	5.3	9.8	1.0	4.3	8.2	0.5	10.8	19.4	3.3	13.8	24.9	4.3

[1] For method of age-adjustment, see Technical notes.

Table 11. Infant mortality rates by race and sex: United States, 1960, 1970, and 1980-87

[Final data for 1970-85 exclude deaths of nonresidents of the United States. Rates per 1,000 live births in specified group. For further discussion see Technical notes]

Year	All races			White			All other					
							Total			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Provisional												
1987	10.0	---	---	---	---	---	---	---	---	---	---	---
1986	10.4	---	---	---	---	---	---	---	---	---	---	---
1985	10.6	---	---	---	---	---	---	---	---	---	---	---
1984	[a]10.7	---	---	---	---	---	---	---	---	---	---	---
Final												
1985	10.6	11.9	9.3	9.3	10.6	8.0	15.8	17.2	14.4	18.2	19.9	16.5
1984	10.8	11.9	9.6	9.4	10.5	8.3	16.1	17.3	14.8	18.4	19.8	16.9
1983	11.2	12.3	10.0	9.7	10.8	8.6	16.8	18.3	15.2	19.2	21.1	17.2
1982	11.5	12.8	10.2	10.1	11.2	8.9	17.3	18.9	15.5	19.6	21.5	17.7
1981	11.9	13.1	10.7	10.5	11.7	9.2	17.8	19.2	16.3	20.0	21.7	18.3
1980	12.6	13.9	11.2	11.0	12.3	9.6	19.1	20.7	17.5	21.4	23.3	19.4
1970	20.0	22.4	17.5	17.8	20.0	15.4	30.9	34.2	27.5	32.6	36.2	29.0
1960	26.0	29.3	22.6	22.9	26.0	19.6	43.2	47.9	38.5	44.3	49.1	39.4

[a] Revised.

Table 12. Infant mortality rates by age and for 10 selected causes of death: United States, 1984-87

[Provisional data for 1985-87 based on a 10-percent sample of deaths. Rates per 100,000 live births. For information on standard errors of the estimates and further discussion, see Technical notes]

Age and cause of death (Ninth Revision, International Classification of Diseases, 1975)	1987 (prov.)	1986 (prov.)	1985 (prov.)	1985 (final)	1984 (final)
Total, under 1 year	997.0	1,039.2	1,057.0	1,064.5	1,078.7
Under 28 days	653.8	669.5	692.6	696.1	700.2
28 days to 11 months	343.3	369.7	364.1	368.3	378.5
Certain gastrointestinal diseases .008-009,535,555-558	5.0	5.9	4.8	5.4	7.2
Pneumonia and influenza .480-487	17.6	18.0	17.9	18.7	18.7
Congenital anomalies .740-759	207.0	218.9	236.7	227.7	233.0
Disorders relating to short gestation and unspecified low birth weight .765	84.8	87.9	83.3	86.6	88.9
Birth trauma .767	5.0	8.6	7.5	8.7	10.2
Intrauterine hypoxia and birth asphyxia .768	25.5	24.2	28.4	30.8	31.9
Respiratory distress syndrome .769	86.4	94.4	100.7	98.2	96.9
Other conditions originating in the perinatal period .760-764,766,770-779	277.9	266.2	264.5	282.8	281.2
Sudden infant death syndrome .798.0	116.1	130.4	129.6	141.3	142.9
All other causes .Residual	172.1	184.7	183.9	164.3	167.8

Technical Notes

Nature and sources of data

All data for 1986 and 1987 in this report are provisional. Data for all other years are final, unless specified as provisional. Data for the United States as a whole refer to events occurring within the United States; other data refer to events within the reporting areas shown.

Beginning with 1970, final birth and mortality statistics exclude data for births and deaths to nonresidents of the United States. Data for nonresidents are included in provisional data. All mortality figures exclude fetal deaths.

Provisional or estimated figures for births, marriages, divorces, and deaths, except data estimated from the Current Mortality Sample, summarize data from monthly reports of the numbers of birth, marriage, divorce, and death certificates received in registration offices between two dates a month apart regardless of the month or year when the events occurred. Delay in the receipt of certificates in a registration office may result in a low count for a given month, followed by a high count for the month(s) in which the delayed records are received. Although this occasionally may result in large fluctuations in State counts for a given event, the effect on provisional monthly totals for the United States is usually small. (Provisional U.S. figures for births, deaths, and infant deaths contain adjustments made to data for California because of the varying length of reporting periods.) Data include all revisions received from the States and, therefore, may differ from those previously published.

Although the counts in this report are not subject to sampling variability (except the Current Mortality Sample, see below), they may be affected by random variation. When the number of events is small (perhaps less than 100) and the probability of such an event is small, considerable caution must be observed in interpreting the data. Such infrequent events may be assumed to follow a Poisson probability distribution. For this distribution a simple approximation may be used to estimate the random variation, as follows.

If N is the number of events in the population and R is the corresponding rate, the chances are 19 in 20 that

1. $N-2\sqrt{N}$ and $N+2\sqrt{N}$

covers the "true" number of events.

2. $R-2\frac{R}{\sqrt{N}}$ and $R+2\frac{R}{\sqrt{N}}$

covers the "true" rate.

If the rate R corresponding to N events is compared with the rate S corresponding to M events, the difference between the two rates may be regarded as statistically significant if it exceeds

$$2\sqrt{\frac{R^2}{N}+\frac{S^2}{M}}$$

Additional information on random variation in numbers of events, rates, and ratios may be found in the technical appendixes of *Vital Statistics of the United States, 1985,* Volumes I and II.

Natality

Monthly estimates of births for the entire United States are based on the monthly reports adjusted for observed differences from final monthly figures. State figures are not adjusted in this manner.

Marriages

Monthly estimates of marriages for the entire United States are based on the monthly reports adjusted for observed differences from final monthly figures. State figures are not adjusted in this manner. For most States, data represent marriages performed. For New Mexico, New York City, and some counties of Arizona, data are marriage licenses issued.

Divorces

Provisional divorce data, including reported annulments, are shown for the areas reporting divorce data monthly. Divorce figures for the United States for 1986 and 1987 are estimated from a summary of monthly reports from 48 States and the District of Columbia. These areas contained over 95 percent of the population of the United States as enumerated in 1980.

Mortality

Current mortality sample

Deaths and death rates for 1986 and 1987 by age, race, sex, and cause were estimated from the Current Mortality Sample. The Current Mortality Sample is a 10-percent systematic sample of death certificates received each month in the vital statistics offices in the 50 States, the District of Columbia, and the independent registration area of New York City. The sample for each of these areas consists of one-tenth of the death certificates received in the office between a given date and the same date of the following month. All death certificates received during the 1-month period are sampled regardless of the month or year in which the death occurred. As a result, the monthly sample is not strictly comparable to a sample on a month-of-

Table I. Percent of death certificates received in the sample each month by month of occurrence: United States, 1987

Month	Deaths occurring in—		
	Same month	Previous month	All other months
January	73.0	18.7	8.3
February	68.5	23.1	8.5
March	70.8	19.5	9.6
April	69.5	21.7	8.8
May	72.6	19.9	7.5
June	69.1	22.1	8.8
July	72.5	21.4	6.2
August	72.4	20.7	6.8
September	70.8	22.2	7.0
October	74.0	18.8	7.2
November	70.1	22.2	7.8
December	70.2	22.5	7.3

occurrence basis. The proportions of death certificates received in the samples for each month of 1987 representing deaths occurring in the current month and those occurring in other months are shown in table I.

Because of the way in which death certificates are processed in California, this State contributes a high proportion of the certificates for deaths not occurring in the sample month. For the sample exclusive of California, the percent of the sample deaths occurring in the current month constitutes 77 percent of the total as opposed to 71 percent of the entire sample. As for the year of occurrence, 97 percent of the 212,508 transcripts in the 1987 sample were for deaths occurring in 1987 and 3 percent for deaths occurring in 1986.

Correction for bias and adjustment to provisional counts—The Current Mortality Sample is selected at a specified time each month. Complete information concerning the underlying cause of death is sometimes not available in the State offices when the sample is drawn but is available later when copies of the final death certificates are processed. As a result, estimates based on sample counts for certain causes are recurringly biased estimates of final counts.

The sample data in this report are corrected using rules and methodology described in the annual summary for 1978 (NCHS, 1979). The data for 1987 are adjusted for bias based on the experience of three years—1983, 1984, and 1985. If for a given cause the sample count for these years departs from one-tenth of the final count by more than would be expected on the basis of sampling variability alone, the sample deaths for this cause are corrected by using an adjusted weight. For all causes without an adjusted weight, a weight of 10 is used. The adjusted weights that were applied to the 1987 sample for all ages and for ages under 1 year are shown in table II.

The 1986 cause-of-death data in this report were adjusted for bias using data for 1982, 1983, and 1984. Therefore, the adjusted weights for 1987 data are not the same as those used for 1986 (NCHS, 1987).

Table II. Causes of death corrected for bias and adjusted weights for all ages and for under 1 year: United States, 1987

Cause of death[1] (Ninth Revision International Classification of Diseases, 1975)	Adjusted weight
All ages	
All other infectious and parasitic diseases .001-003,005, 020-032,037,039-041,*042-*044, 046-054,056-066,071–088,098-139	10.29
Malignant neoplasms of all other and unspecified sites .170-173,190-199	9.82
Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature .210-239	9.09
Hypertensive heart and renal disease .404	10.94
Angina pectoris .413	12.47
Other diseases of endocardium .424	10.44
Pneumonia .480-486	10.19
Renal failure, disorders resulting from impaired renal function, and small kidney of unknown cause .584-586,588-589	9.71
Infections of kidney .590	10.92
Symptoms, signs, and ill-defined conditions .780-799	7.41
All other diseases .Residual	10.10
Motor vehicle accidents .E810-E825	10.43
Suicide .E950-E959	10.44
Homicide and legal intervention .E960-E978	10.32
All other external causes .E980-E999	10.93
Under 1 year	
Septicemia .038	8.17
Rheumatic fever and rheumatic heart disease .390-398	11.41
Hypertensive heart disease .402	11.41
Hypertensive heart and renal disease .404	11.41
Acute myocardial infarction .410	11.41
Other acute and subacute forms of ischemic heart disease .411	11.41
Angina pectoris .413	11.41
Old mycardial infarction and other forms of chronic ischemic heart disease .412,414	11.41
Other diseases of endocardium .424	11.41
All other forms of heart disease .415-423,425-429	11.41
Hypertension with or without renal disease .401,403	11.41
Intracerebral and other intracranial hemorrhage .431-432	11.41
Cerebral thrombosis and unspecified occlusion of cerebral arteries .434.0,434.9	11.41
Cerebral embolism .434.1	11.41
All other and late effects of cerebrovascular diseases .430,433,435-438	11.41
Atherosclerosis .440	11.41
Other diseases of arteries, arterioles, and capillaries .441-448	11.41
Symptoms, signs, and ill-defined conditions .780-799	9.29

[1]Causes of death eligible to have an adjusted weight were those that had 50 or more deaths based on final data for 1985.

Sampling variability—Because the estimates of deaths and death rates presented in this report (with the exception of total deaths and deaths under 1 year) are based on a sample of the death certificates, they are subject to sampling variability. The estimated relative standard error shown in this report is a measure of the sampling error of the estimated number of deaths (or of the estimated death rate) expressed as a percent of the estimate. The chances are about two out of three that the percent difference between an estimate and the result of a complete count is less than the percent shown. The chances are about 19 out of 20 that the percent difference is less than twice the percent shown. Special caution should be used in interpreting figures based on fewer than 100 estimated deaths;

NOTE: A list of references follows the text.

these estimates have relative standard errors of 30 percent or more and are therefore considered unreliable.

Two methods are used for estimating relative standard errors—one for the ratio estimates for the causes of death corrected for bias and the other for estimates for the remaining causes of death or for given age-race-sex groups. The relative standard error of a ratio estimate for a given cause of death corrected for bias for all ages is computed as follows:

$$V=300\sqrt{\frac{1}{10}\left(\frac{1}{x}-\frac{1}{D}\right)+\left(\frac{1}{Y}-\frac{1}{M}\right)}$$

where V = relative standard error (in percent) of the estimate X

X = the estimated number of deaths (or estimated death rate) from a given cause or age-race-sex group

x = the number of deaths in the sample from the given cause

D = the total number of death certificates in the sample for the specified year (212,508 for 1987)

Y = the final number of deaths from the given cause occurring in three years (1983, 1984, and 1985 combined for 1987)

M = the final number of all deaths occurring in three years (1983, 1984, and 1985 combined for 1987)

The relative standard errors for the remaining estimates for given causes of death not requiring a correction for bias or for a given age-race-sex group are computed as follows:

$$V=300\sqrt{\frac{1}{X}-\frac{1}{N}}$$

where V = the relative standard error (in percent) of the estimate X

X = the estimated number of deaths (or estimated death rate) from a given cause or for an age-race-sex group

N = the provisional number of registered deaths for the specified year (2,127,000 in 1987)

The relative standard error due to sampling may be obtained by using the above formula where X is the estimated number of deaths for a given group. Data required to compute relative standard errors for 1986 are given in an earlier report (NCHS, 1987). For easy reference, the relative standard errors ascribable to sampling for estimates based on several levels in the number of deaths are shown in table III.

Comparisons made in the text between death rates based on the Current Mortality Sample, unless otherwise specified, have passed a hypothesis test at the 0.05 level of significance. Descriptions of the test can be found in most standard statistical textbooks. Lack of comment in the text about any two rates does *not* mean that the difference was tested and found not to be significant at this level.

Table III. Relative standard errors for estimated numbers of deaths from the Current Mortality Sample expressed as a percent of the estimate

Estimated number of deaths	Relative standard error (as percent)	Estimated number of deaths	Relative standard error (as percent)
10	94.9	900	10.0
20	67.1	1,000	9.5
50	42.4	2,000	6.7
100	30.0	5,000	4.2
200	21.2	10,000	3.0
300	17.3	20,000	2.1
400	15.0	50,000	1.3
500	13.4	100,000	0.9
600	12.2	200,000	0.6
700	11.3	500,000	0.4
800	10.6	1,000,000	0.2

Cause-of-death classification

The mortality statistics presented here are compiled in accordance with World Health Organization regulations, which specify that member nations classify causes of death in accordance with the current revision of the International Statistical Classification of Diseases, Injuries, and Causes of Death.

Causes of death for 1979-87 were classified according to the Ninth Revision (World Health Organization, 1977). For years prior to 1979 causes of death were classified according to the revision then in use. Changes in classification of causes of death due to these revisions may result in discontinuities in cause-of-death trends. Consequently, cause-of-death comparisons between revisions require consideration of the comparability ratios and, where available, estimates of their standard errors. For information about comparability ratios between the Eighth and Ninth Revisions, see *Monthly Vital Statistics Report,* Volume 28, Number 11 Supplement (NCHS, 1980).

For information about comparability ratios between the Seventh and Eighth Revisions, see *Vital and Health Statistics,* Series 2, Number 66 (NCHS, 1975). For a list of other reports on the effects of revisions of the international lists on mortality statistics tabulated by cause, see *Vital Statistics—Special Reports,* Volume 51, Number 4 (NCHS, 1965).

Besides specifying the classification, the World Health Organization regulations outline the form of medical certification and the coding procedures to be used. In general, when more than one cause of death is reported, the cause designated by the certifying physician as the underlying cause of death is the cause tabulated.

Causes of death for data presented in this publication were coded by procedures outlined in issues of Part 2a of the *NCHS Instruction Manual* (NCHS, published annually).

NOTE: A list of references follows the text.

New codes for HIV infection—Beginning with data for 1987, NCHS introduced new category numbers *042-*044 for classifying and coding human immunodeficiency virus (HIV) infection, formerly referred to as human T-cell lymphotropic virus-III/lymphadenopathy-associated virus (HTLV-III/LAV) infection. The asterisk before the category numbers indicates that these codes are not part of the Ninth Revision of the International Classification of Diseases (ICD-9). In table 10 of this report estimated deaths and death rates for 1987 for Human immunodeficiency virus infection are shown by age, race, and sex. These estimates are based on data from the Current Mortality Sample and therefore are subject to the sampling variability discussed above. Deaths classified to these categories for 1987 are included in All other infectious and parasitic diseases in the List of 72 Selected Causes of Death shown in table 9. For 1986 and previous years, deaths involving HIV infection were classified to Deficiency of cell-mediated immunity (ICD-9 No. 279.1), contained in the title All other diseases; to Pneumocystosis (ICD-9 No. 136.3), contained in the title All other infectious and parasitic diseases; to Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues; and to a number of other causes. As a consequence, cause-of-death data for 1987 are not strictly comparable with data for previous years.

Cause-of-death ranking

Cause-of-death ranking is based on the List of 72 Selected Causes of Death, adapted from one of the special lists for mortality tabulations recommended by the World Health Organization for use with the Ninth Revision of the International Classification of Diseases. Two group titles—Major cardiovascular diseases and Symptoms, signs, and ill-defined conditions—are not ranked. In addition, category titles that begin with the words "Other" and "All other" are not ranked. The remaining category titles are ranked according to the number of deaths for 1987 to determine the leading causes of death. When one of the titles that represents a subtotal is ranked (for example, Tuberculosis), its component parts (in this case, Tuberculosis of respiratory system and Other tuberculosis) are not ranked.

Age-adjusted rates

The age-adjusted rates presented in this report were computed by the direct method, that is, by applying the age-specific death rates for a specified group or cause of death to the standard population distributed by age. The total population as enumerated in 1940 was selected as the standard. The age-adjusted rates were based on 10-year age groups except those by specified causes for 1986 and 1987. Rates by specified cause in tables 8 and 10 were based on age groups shown in the given table. It is important not to compare age-adjusted death rates with crude rates.

Life tables

U.S. abridged life tables are constructed by reference to a standard life table (NCHS, 1966). For explanation of the columns of the life table, see *Vital Statistics of the United States, 1985,* Volume II, Section 6 (NCHS, 1988).

Infant mortality

Infant mortality rates shown in figure 5 and tables A, 11, and 12 are the most commonly used index for measuring the risk of dying during the first year of life; they are calculated by dividing the number of infant deaths in a calendar year by the number of live births registered for the same period, and are presented as rates per 1,000 or per 100,000 live births. Infant mortality rates use the number of live births in the denominator to approximate the population at risk of dying before the first birthday.

In contrast to infant mortality rates based on live births, infant death rates shown in tables H, 4, 5, and 8 are based on the estimated population under 1 year of age. Infant death rates that appear in tabulations of age-specific death rates are calculated by dividing the number of infant deaths in a calendar year by the estimated mid-year population of persons under 1 year of age (based on births occurring in the 12-month period ending with June), and are presented as rates per 100,000 population in this age group. Due to differences in the denominators, infant death rates may differ from infant mortality rates.

Seasonal adjustment

The method of seasonal adjustment used for birth, fertility, and marriage rates is described in *The X-11 Variant of the Census Method II Seasonal Adjustment Program* (U.S. Bureau of the Census, 1967). Marriage rates were also adjusted for monthly variation in the specified days of the week (Sundays, Mondays, and so forth) because marriages are more likely on some days than on others.

Population bases for computing rates

The populations used for computing rates shown in this report (furnished by the U.S. Bureau of the Census) represent the population residing in the specified area. Populations for 1940, 1950, 1960, 1970, and 1980 were enumerated as of April 1; all other populations were estimated as of July 1.

The populations for 1987 have been published by the U.S. Bureau of the Census (1988a, 1988b).

Beginning with 1984 data in this report population estimates incorporate new estimates for net migration and net undocumented immigration. As a result, rates for 1984-87 are not strictly comparable with those for previous years, although trends for the total population and most

NOTE: A list of references follows the text.

age-race-sex groups are not substantially affected. Additional information has been published by the U.S. Bureau of the Census (1986).

The U.S. Bureau of the Census has conducted extensive research to evaluate the coverage of the U.S. population (including undercount and overcount and misstatement of age, race, and sex) in the last four decennial censuses—1950, 1960, 1970, and 1980 (U.S. Bureau of the Census, 1974, 1977, 1985). These evaluative studies indicate that there is differential coverage in the censuses among the population groups; that is, some age, race, and sex groups are more completely enumerated than others. To the extent that the estimates of net census undercounts and overcounts are valid, that the net undercounts and overcounts are substantial, and that they vary among subgroups of the population, net census undercounts and overcounts can have consequences for vital statistics measures (U.S. Bureau of the Census, 1974).

NOTE: A list of references follows the text.

Symbols

---	Data not available
. . .	Category not applicable
-	Quantity zero
0.0	Quantity more than zero but less than 0.05
Z	Quantity more than zero but less than 500 where numbers are rounded to thousands
*	Figure does not meet standard of reliability or precision

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