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**Life Tables for the American Indian and Alaska Native
IHS Service Population by Sex and IHS Area, 1989-1991
with Comparable U.S. All Races and White Population Data, 1990**

Introduction

Life tables provide a more refined means of measuring mortality levels in a population than crude, age-specific, or age-adjusted mortality rates. They allow comparison of mortality rates between populations without requiring adjustment to an actual standard population in order to account for differences in age distributions between those populations.

The starting point for the construction of a life table is a series of age-specific mortality rates developed for that population. All other functions in the table evolve from these rates. The other functions include the number of survivors, the number of deaths, and the number of person-years lived at a given age, the number of person-years lived after reaching that age, and the expected future life for a person reaching that age.

Life expectancy should not be confused with life span. Life span is the maximum number of years we could expect to live as a species under optimum mortality conditions. Life span has probably not changed in recent times; it is a concept that cannot be measured easily. Life expectancy, simply put, is the number of years an average person can expect to live and is measurable using current mortality statistics. It varies from generation to generation, from country to country, by race and by sex.

Life tables are routinely prepared by the National Center for Health Statistics (NCHS) by race and sex. NCHS does not, however, prepare life tables for American Indians and Alaska Natives. The purpose of this report is to develop life tables for the American Indian and Alaska Native population residing in the geographic area in which the Indian Health Service (IHS) has responsibilities and to make comparisons of Indian life expectancy to the total, White, and All Other Races U.S. populations. The report includes a discussion of life table definitions and methodology in order to provide a better understanding of life table data. The life tables included in this report are based on three years of data because of the small numbers of American Indian deaths that occur during a single calendar year.

Types of Life Tables

Generation vs. Period Life Tables

There are two different types of life tables: the generation or cohort life table and the current or period life table. The generation life table is based on the mortality experience of a particular birth cohort, which includes all persons born in a particular year.

Preparation of a generation life table requires use of the mortality rates actually experienced by that cohort at each age during its lifetime, until all persons in the cohort have died. It provides a longitudinal picture of the actual lifetime experience of a

particular group of people. It is difficult to prepare, however, in that it requires compilation of mortality data over a very long period of time, i.e. 100 years or more, depending on the number of years the last surviving member of the cohort lives. As a result of data collection problems such life tables are seldom prepared.

The current or period life table is much easier to prepare and, therefore, much more commonly used. It is based on a "synthetic" instead of a real birth cohort. A synthetic cohort consists of a population distributed by age as it exists at a particular point in time. It is cross-sectional in that it crosses numerous generations and includes people born in many different years. A period life table is representative of the combined mortality experience by age of that cross-section of population at that particular point in time, and is developed based on the applicable age-specific mortality rates for that time period. It does not represent the actual experience of a real cohort. The current life table provides a "snap shot" of current mortality experience and provides an indicator of the long-term results should current mortality rates prevail.

Both current and generation life tables assume a cohort of 100,000 live births as a starting point. All values generated by the life table evolve from the original 100,000 births.

The current life table itself can be interpreted in two ways. The first interpretation is that of a birth cohort of 100,000 live births aging over time and subject to the mortality conditions shown over its lifetime. The second interpretation is that of a "stationary population" in which there are 100,000 live births every year with each birth cohort subject to the same age-specific mortality rates over its lifetime, resulting in a population with an unchanging number and age distribution.

Complete vs. Abridged Life Tables

Complete life tables contain data by single year of age; they use counts of the population enumerated during a decennial census and deaths for a 3-year period centered around the decennial census year. Abridged life tables contain data by 5-year age intervals and are usually prepared annually; however, for this report they have been prepared using 3-year aggregated data because of the relatively small number of Indians in the IHS service population. Annual abridged life tables are prepared by using the most recent decennial life table as a standard and adjusting abridged life table functions to that standard, assuming constancy of relationship for those functions between the two tables.

The methodology used here was developed by NCHS and is referred to as "The revised method of computing life tables by reference to a 'standard' table." The methodology is discussed in a report published by NCHS.¹

¹ Comparison of two methods of Constructing Abridged Life Tables by reference to a "standard" table. Public Health Service Publication Number 1000, Series 2, Number 4. Revised March 1966.

Constructing Abridged Life Tables

Column Descriptions

Life Table Values

The life tables in this report include the basic life table functions that are commonly shown as part of a published life table. The columns in a life table are identified by a mathematical symbol whose meaning is described below.

- ${}_nq_x$ The probability of dying during the age interval.
- l_x The number of persons out of the original 100,000 live births who are still alive at the beginning of the age interval.
- ${}_nd_x$ The number dying during the specified age interval.
- ${}_nL_x$ The number of person-years lived during the specified age interval.
- T_x The total number of person-years that will be lived from the beginning of the specified age interval until the last person in the cohort dies.
- e^o_x Life expectancy, the average number of years remaining in the lifetime of a person alive at the beginning of the specified age interval.

Preliminary Life Table Data

The following preliminary life table data are usually not published as part of a life table but are used to generate the life table values described above. Some of these data are fixed constants which have been developed by NCHS for standardizing the abridged tables to the complete decennial life tables. Other preliminary data include mortality and population data used to develop mortality rates. The preliminary data are as follows:

- ${}_nA_x$ A set of constants derived by NCHS from the complete decennial life table used as the standard table. These constants are used as adjustment factors to convert the age-specific mortality rates into ${}_nq_x$, the probability of dying for each age interval. It bases the conversion of the observed ${}_nM_x$ to the ${}_nq_x$ in the abridged life table on the relationship of the ${}_nM_x$ to the ${}_nq_x$ in the table being used as the standard. The A constant differs by race and by sex.
- ${}_nB_x$ A set of constants derived by NCHS from the complete decennial life table that is used as the standard table. These constants represent the distribution of deaths within the age interval. They are used to compute ${}_nL_x$, the number of person years lived during the age interval. Their computation assumes that the age distribution of those dying within the interval is the same within the

abridged table as it is within the standard table. The B constant differs by race and by sex.

${}_nP_x$ The estimated midyear population for the age interval.

${}_nD_x$ The number of deaths for the age interval.

${}_nM_x$ The age-specific death rate for the age interval.

$1 + {}_nA_x * {}_nM_x$ A set of adjustment factors used to convert the observed population age-specific mortality rates into the probability of dying, or ${}_nq_x$ using the ${}_nA_x$ constant defined above.

There are several additional factors that are called into the computations within columns of the spread sheet that are not normally shown individually in a life table. These include a capital F factor, a separation factor, and an end value constant.

The capital F factor is used to adjust proportionately the age-specific death rates for the number of deaths with age not stated. It is computed for each life table based on number of deaths not stated in the population under study.

The separation factor is a constant developed by NCHS which is incorporated into the formula which computes the infant mortality rate. Normally the infant mortality rate is computed simply by dividing the number of infant deaths in a given year by the number of births in that year even though infant deaths do not always occur in the year of birth. The purpose of the separation factor is to separate infants dying at less than 1 year of age into those born in that same year from those born in the previous year. The infant mortality rate is then computed in two parts, using the appropriate number of births as the denominator for the infant deaths which have been "separated" by year of birth.

The end value constant is developed by NCHS and used to compute the number of remaining person years lived for those age 85 years and older. This is necessary because this age group is an open-ended interval.

An additional factor that is incorporated into these life tables is an adjustment factor to partially account for the misreporting of race on death certificates for American Indians. Mortality rates for American Indians are artificially low because of underreporting of Indian race, resulting in artificially high life expectancy. We have been able to estimate the amount of underreporting of Indian race on death certificates for infants dying during the first year of life by using the 1983 to 1986 Linked Birth/Infant Death files prepared by NCHS. An adjustment factor based upon these files has been incorporated into the life table program to inflate the number of infant deaths reported during the time period to a number that appears to be a more realistic estimate of the number of Indian infant deaths.

Unfortunately, since we currently have no reliable adjustment factor for other age groups, we are able to make the adjustment for infant deaths only.

How to Interpret a Life Table

Although a life table contains a multitude of numbers and formulas, the primary interest of a life table user is most likely one number, the expected years of life at birth. That number is found at the top of the last column of the life table. The purpose of all other numbers and formulas within the table is the generation of that number. Life tables are usually prepared by sex because of the substantial difference found between the life expectancy of males and females.

In order to understand the life table concept it is important to understand the life table functions and how they are interrelated.

All of the preliminary life table data, with the exception of ${}_aB_x$, is used to compute ${}_aq_x$, which is the proportion or probability of dying during the age interval. The first step in the generation of ${}_aq_x$ is the computation of the age-specific death rate, or ${}_aM_x$, from the number of deaths and the population within the age group. ${}_aM_x$ may differ slightly from the age-specific mortality rates that we normally use because the number of deaths with age not stated are distributed proportionally among the age groups in the computation of ${}_aM_x$. ${}_aM_x$ also differs from the normal infant mortality rate due to use of the separation factor as discussed above.

The second step toward computing ${}_aq_x$ is the development of the adjustment factor, based on the relationship of the age-specific death rates to the probability of dying, ${}_aA_x$, that was found in the life table used as the standard. The age-specific death rates computed for the life table are then converted to the probability of dying within the interval by multiplying the rate times the length of the age interval and then dividing by the adjustment factor.

The next two life table columns, l_x and ${}_ad_x$, are interrelated. The first row of column l_x is the beginning cohort of 100,000 live births used as a starting point for any life table. The first row of column ${}_ad_x$ is the number of those 100,000 who die during this age interval. For each of the succeeding age groups, l_x is the number from the original cohort of 100,000 births who survive to the exact age at the beginning of the age interval. This number is computed by subtracting the number dying or ${}_ad_x$, in the previous age interval from the number alive at the beginning of that previous interval. The number dying is computed by applying the probability of dying during the interval, ${}_aq_x$, to the number alive at the beginning of the interval, l_x .

Columns, ${}_aL_x$ and T_x , are both related to the stationary population. ${}_aL_x$ differs from l_x in that l_x is the number of survivors from a single birth cohort of 100,000 births who survive TO the beginning of an age interval, while ${}_aL_x$ is the total number of survivors WITHIN the age interval based on multiple birth cohorts of 100,000 births each, the number of cohorts

depending on the number of years in the age interval identified. For example, the first age group in the life table consists of 1 birth cohort of 100,000 births. The second age interval is a 4-year interval composed of 4 birth cohorts totaling 400,000 births. The remaining age groups (with the exception of 85+ years) are in 5-year intervals of 5 birth cohorts totaling 500,000 births as a beginning population. ${}_xL_x$ is computed by multiplying the number of single cohort survivors at the beginning of the interval, or l_x , by the number of cohorts (based on the size of the age interval) within the age interval and then subtracting deaths for the age interval, ${}_xd_x$, which has been adjusted by ${}_xB_x$, a conversion factor derived from the "standard" life table.

T_x is the total number of survivors in the specified age group and all older age groups. It is computed by adding ${}_xL_x$ for the specified age interval to the sum of the ${}_xL_x$'s of older age groups.

Finally, e^o_x , or life expectancy, is computed by dividing T_x by l_x for each age interval.

Data Limitations

A summary table (Table 1) and 12 charts (Charts A1-D3) for American Indian and Alaska Native life expectancies at birth and for persons at several age groups (20-24 years, 40-44 years, and 60-64 years) have been prepared. These data are provided for both sexes, for each sex, and for each IHS Area. Since it is known that there is underreporting of American Indian decedents residing in three IHS Areas (California, Oklahoma City and Portland--these decedents may be reported on State death certificates as being of another race), life expectancies for the total of the remaining nine Areas, as well as for the total of all twelve IHS Areas have been prepared. Life expectancies for other 5-year age groups, in addition to those selected for review in this report, are provided in the detailed life expectancy tables found at the end of the report.

For each of the four life expectancy age groups selected for analysis (at birth, 20-24 years, 40-44 years, and 60-64 years) the California Area ranked number 1 and the Oklahoma City Area ranked number 2 (highest to lowest life expectancies by IHS Area were ranked from number 1 to number 12, respectively). It may be that a large proportion of the decedents not identified properly as American Indian or Alaska Native on death certificates of States in these two IHS Areas are concentrated in the age groups 20 to 54 (approximately). If this were the case, then it would appear that people in these age groups were dying at relatively low rates. This would cause the life expectancy at birth and at other ages to increase. This hypothesis however cannot be verified with the information currently available. The reader should keep this in mind when reviewing life expectancy information contained in this report. The degree of misreporting of American Indian decedents by race on Portland Area State death certificates may not be as high as that experienced in the California and Oklahoma City Areas. Thus, Portland Area life expectancies by sex for the four age groups under study ranked either 5 or 6 among the 12 IHS Areas, except for males in the age group 60-64 years, whose life expectancy ranked 8th.

Life Expectancy At Birth (Table 1 and Charts A1, A2, and A3)

IHS Areas with the five highest life expectancies for American Indian and Alaska Native persons at birth were; California (82.2), Oklahoma (79.5), Albuquerque (74.3), Nashville (73.7), and Portland (72.9). IHS Areas with the five lowest life expectancies at birth were; Aberdeen (63.9), Billings (66.6), Alaska (68.4), Tucson (68.6), and Bemidji (69.3). Life expectancy at birth for the 12 IHS Areas was 73.2. For the 9 Areas it was 70.2.

Comparable data for U.S. populations (1990) were; All Races (75.4), White (76.1) and Black (69.1).

For each IHS Area and for each of the four age groups selected for analysis, life expectancies for females were higher than those for males. To measure the magnitude of this difference, ratios between the female life expectancies and the male life expectancies by IHS Area were prepared. For American Indian and Alaska Native life expectancies at birth, these ratios varied from 1.17 for Aberdeen and 1.16 for Alaska and Navajo to 1.07 for Tucson and 1.08 for Nashville and Portland. For the 12 IHS Areas this ratio was 1.12. For the 9 Areas it was 1.13.

The comparable female to male ratios for the U.S. All Races, White and Black populations were 1.10, 1.09 and 1.14, respectively.

Life expectancy at birth (1989-91) for American Indian males in the 9 IHS Areas was lower than the comparable numbers for U.S. All Races and U.S. White male populations (1990) (ratios of 0.92 and 0.91, respectively), but higher than that for the U.S. Black male population (1990) (ratio of 1.02).

Similarly, life expectancy at birth (1989-91) for American Indian females in the 9 IHS Areas was lower than the comparable numbers for U.S. All Races and U.S. White female populations (1990) (ratios of 0.95 and 0.94, respectively) but higher than that for the U.S. Black female population (1990) (ratio of 1.01).

Chart A1.
Life Expectancy at Birth, Both Sexes
CY 1989-1991

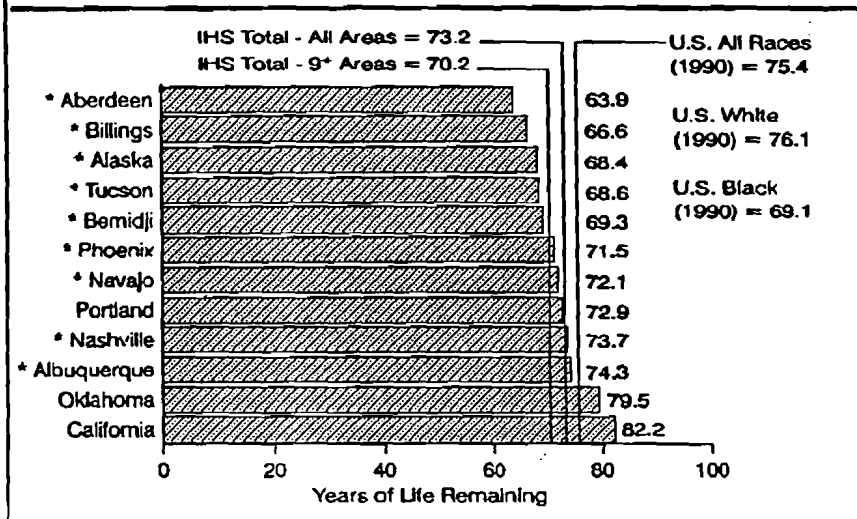
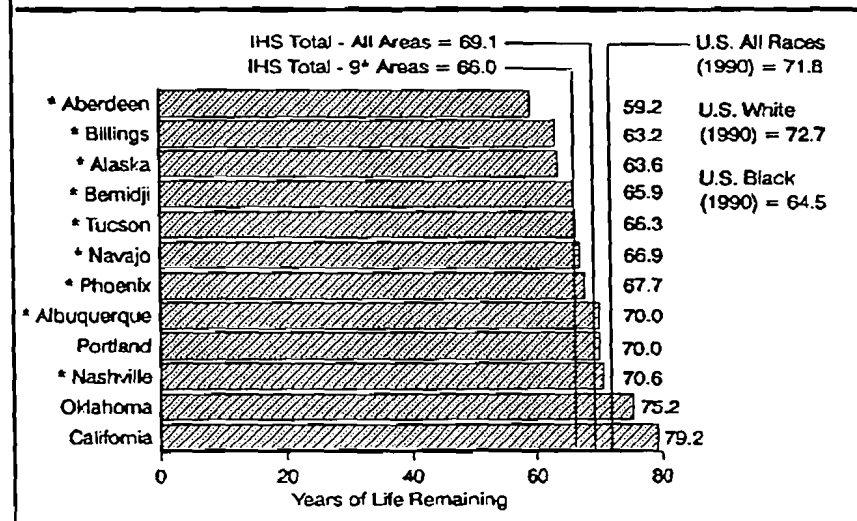
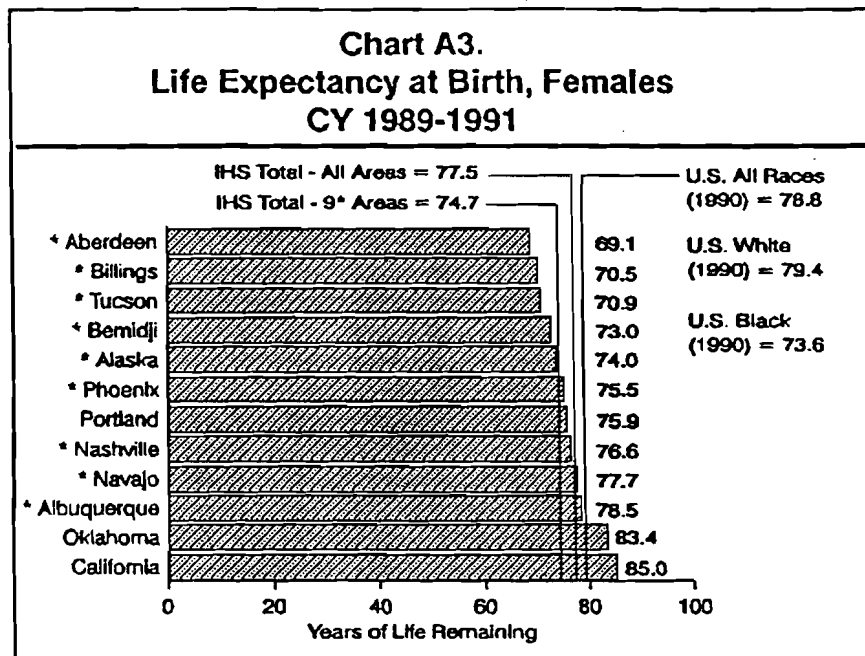


Chart A2.
Life Expectancy at Birth, Males
CY 1989-1991





Life Expectancy For Persons 20-24 Years of Age (Table 1 and Charts B1, B2 and B3)

IHS Areas with the five highest life expectancies for American Indian and Alaska Native persons aged 20 to 24 years were; California (63.2), Oklahoma (60.6), Nashville (55.9), Albuquerque (56.1), and Portland (54.7). IHS Areas with the lowest life expectancies for this age group were; Aberdeen (46.6), Billings (49.4), Bemidji (51.0), Alaska and Tucson (each with 51.1). Life expectancy for age group 20-24 years for the 12 IHS Areas was 55.2. For the 9 Areas it was 52.3.

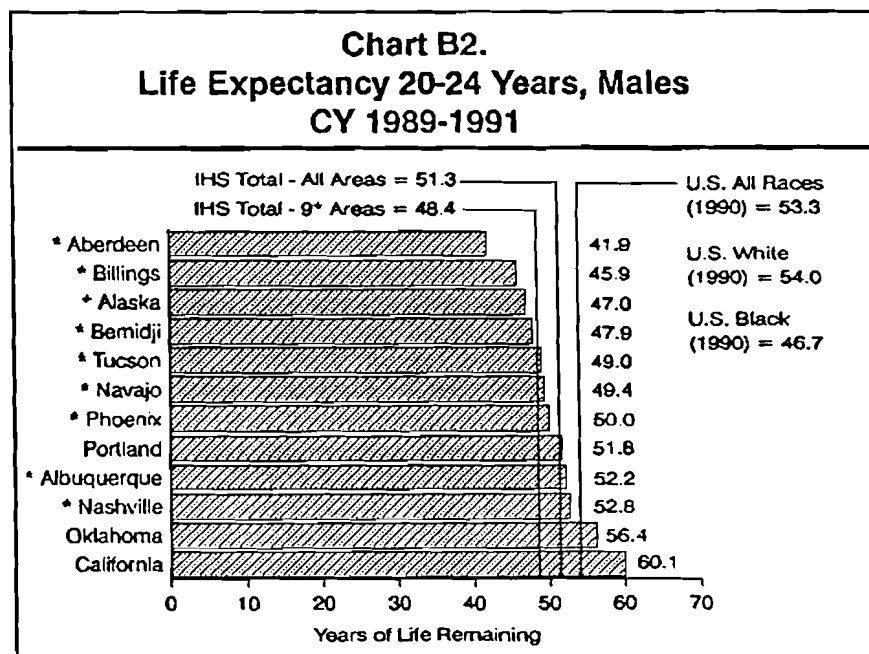
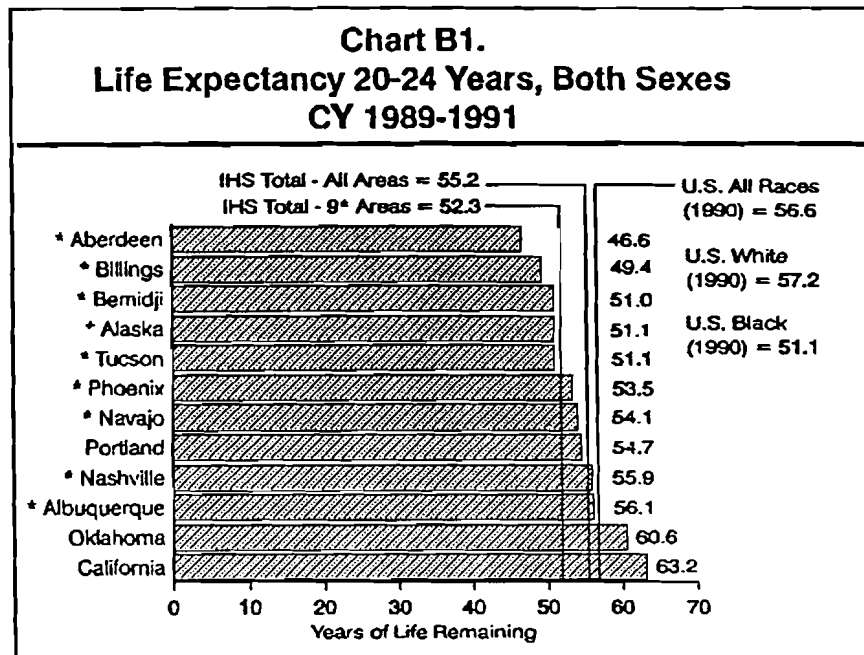
Comparable data for U.S. populations (1990) were; All Races (56.6), White (57.2) and Black (51.1).

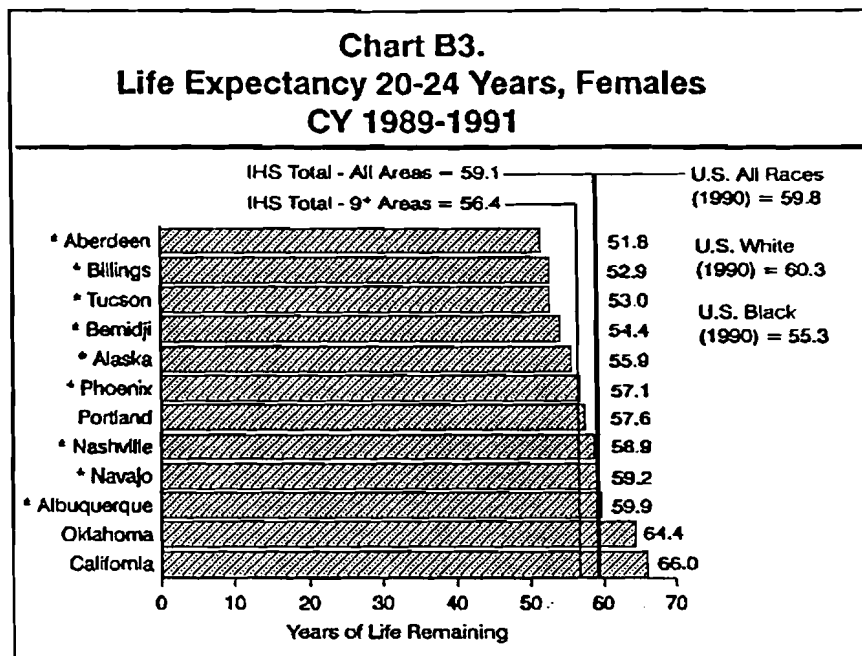
Ratios of female to male American Indian and Alaska Native life expectancies varied from 1.24 for Aberdeen and 1.20 for Navajo to 1.08 for Tucson and 1.10 for California. For the 12 IHS Areas this ratio was 1.15. For the 9 Areas it was 1.17.

The comparable ratios for the U.S. All Races, White and Black populations were 1.12, 1.12 and 1.18, respectively.

Life expectancy at age 20-24 years (1989-91) for American Indian males in the 9 IHS Areas was lower than the comparable numbers for U.S. All Races and U.S. White male populations (1990) (ratios of 0.91 and 0.90, respectively), but higher than that for the U.S. Black male population (1990) (ratio of 1.04).

Similarly, life expectancy at age 20-24 years (1989-91) for American Indian females in the 9 IHS Areas was lower than the comparable numbers for U.S. All Races and U.S. White female populations (1990) (ratios of 0.94 for both populations) but higher than that for the U.S. Black female population (1990) (ratio of 1.02).





Life Expectancy For Persons 40-44 Years of Age (Table 1 and Charts C1, C2 and C3)

IHS Areas with the five highest life expectancies for American Indian and Alaska Native persons aged 40-44 years were; California (44.7), Oklahoma (41.9), Albuquerque (38.9), and Nashville and Navajo (each with 37.7). IHS Areas with the lowest life expectancies for this age group were; Aberdeen (29.7), Billings (32.5), Bemidji (33.2), Tucson (33.7), and Alaska (35.1). Life expectancy for age group 40-44 years for the 12 IHS Areas was 37.7. For the 9 Areas it was 35.3.

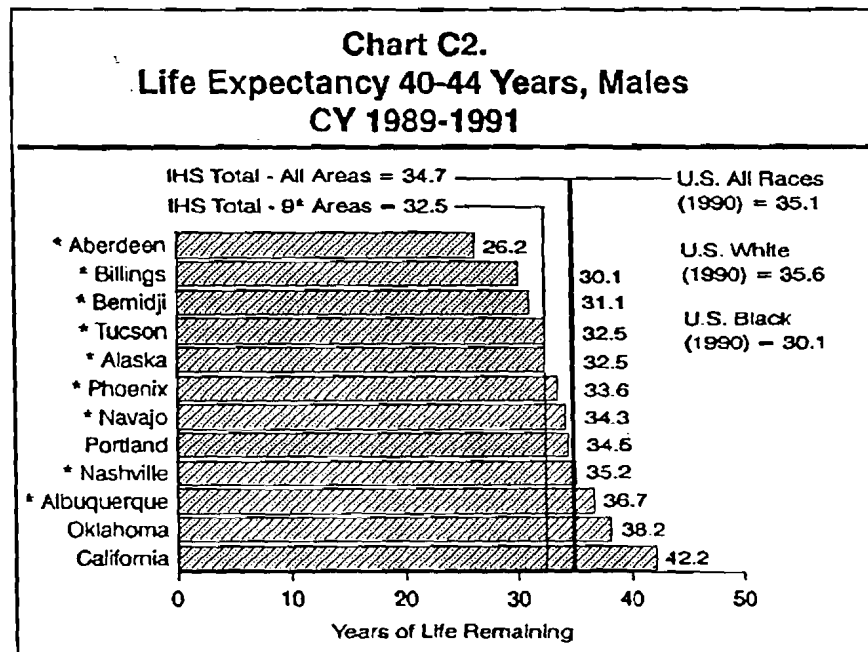
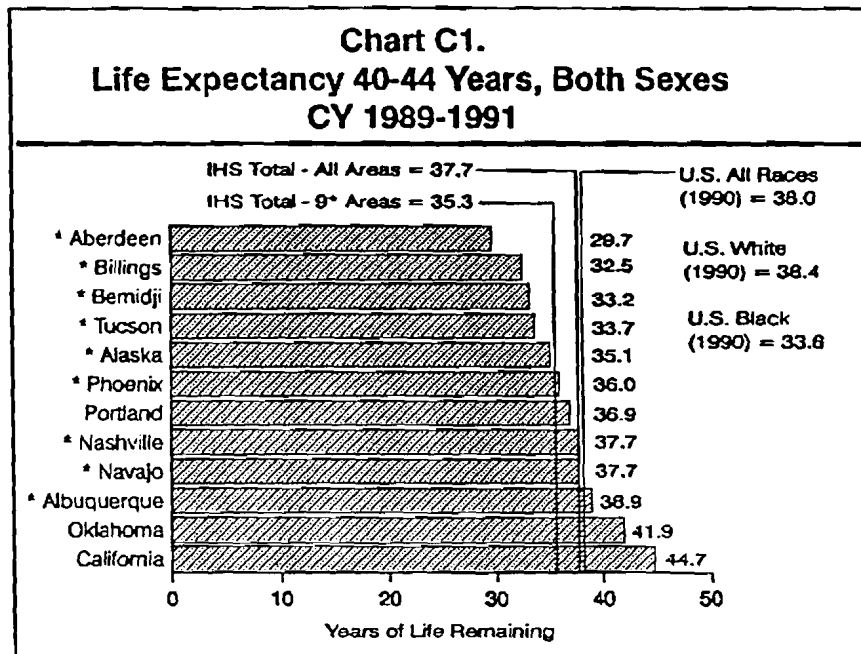
Comparable data for U.S. populations (1990) were; All Races (38.0), White (38.4), and Black (33.6).

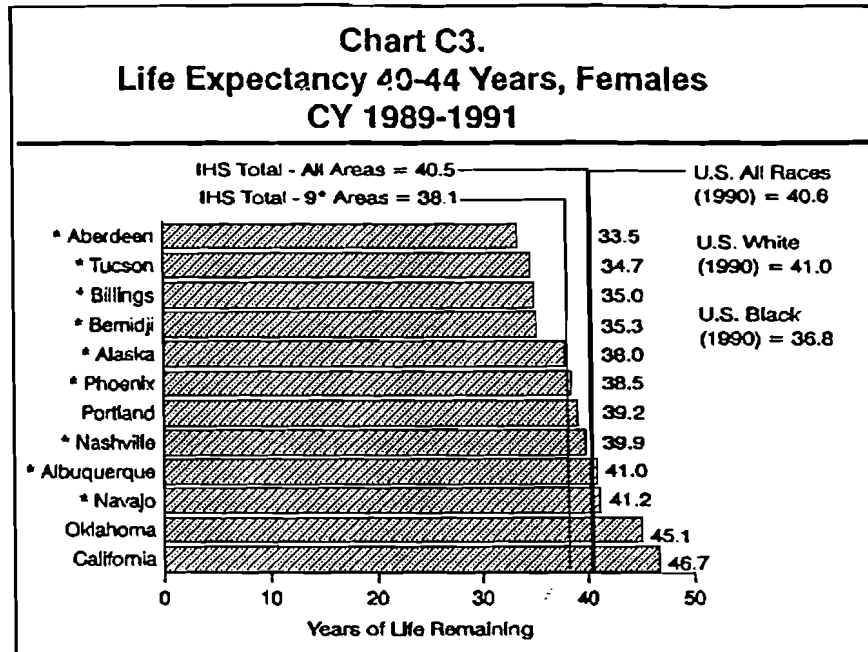
Ratios of female to male life expectancies varied from 1.28 for Aberdeen and 1.20 for Navajo to 1.07 for Tucson and 1.11 for California. For both the 12 and the 9 IHS Areas, this ratio was 1.17.

The comparable ratios for the U.S. All Races, White and Black populations were; 1.16, 1.15 and 1.22, respectively.

Life expectancy at age 40-44 years (1989-91) for American Indian males in the 9 IHS Areas was lower than the comparable numbers for U.S. All Races and U.S. White male populations (1990) (ratio of 0.93 and 0.91, respectively, but higher than that for the U.S. Black male population (1990) (ratio of 1.08).

Similarly, life expectancy at age 40-44 years (1989-91) for American Indian females in the 9 IHS Areas was lower than the comparable numbers for U.S. All Races and U.S. White female populations (1990) (ratios of 0.94 and 0.93, respectively), but higher than that for the U.S. Black female population (1990) (ratio of 1.04).





Life Expectancy For Persons 60-64 Years of Age (Table 1 and Charts D1, D2 and D3)

IHS Areas with the five highest life expectancies for American Indian and Alaska Native persons aged 60-64 years were; California (27.3), Oklahoma (24.8), Albuquerque (22.6), Navajo (21.9), and Nashville (21.2). IHS Areas with the lowest life expectancies for this age group were; Aberdeen (16.6), Billings (17.1), Bemidji (17.7), Tucson (19.1), and Alaska (19.3). Life expectancy for age group 60-64 years for the 12 IHS Areas was 21.7. For the 9 Areas it was 19.9.

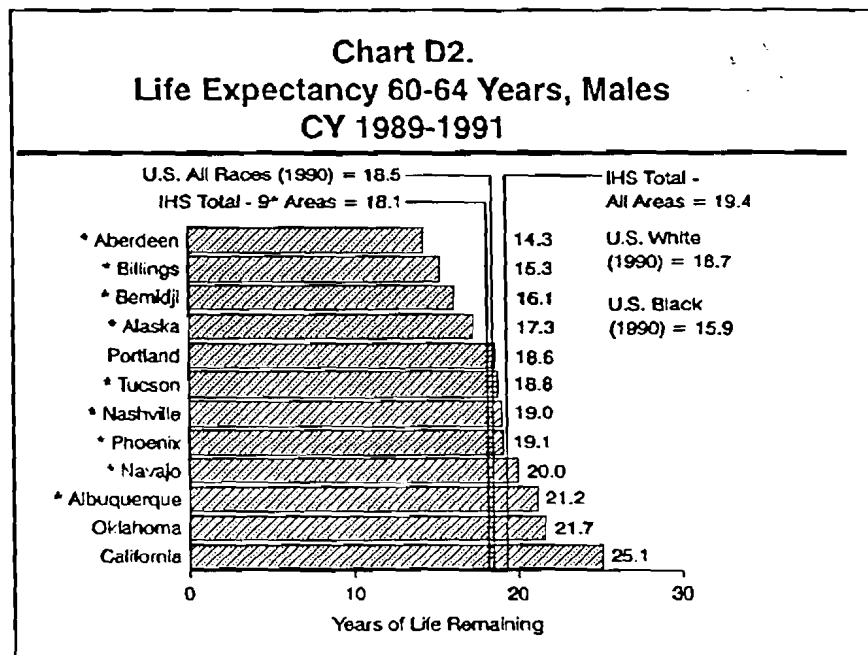
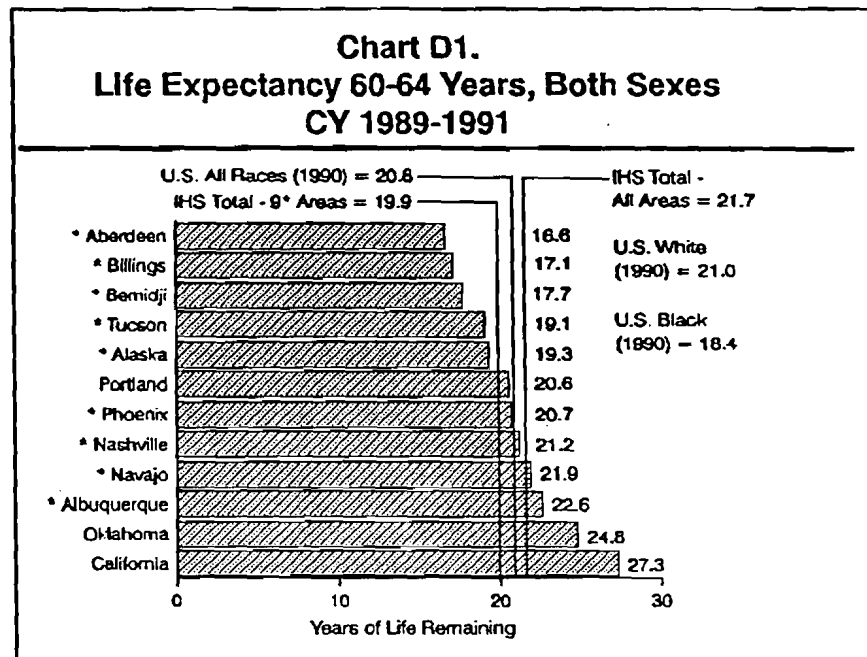
Comparable data for U.S. populations (1990) were; All Races (20.8), White (21.0), and Black (18.4).

Ratios of female to male life expectancies varied from 1.33 for Aberdeen and 1.26 for Oklahoma City, to 1.03 for Tucson and 1.12 for Albuquerque. For the 12 IHS Areas this ratio was 1.22. For the 9 Areas it was 1.20.

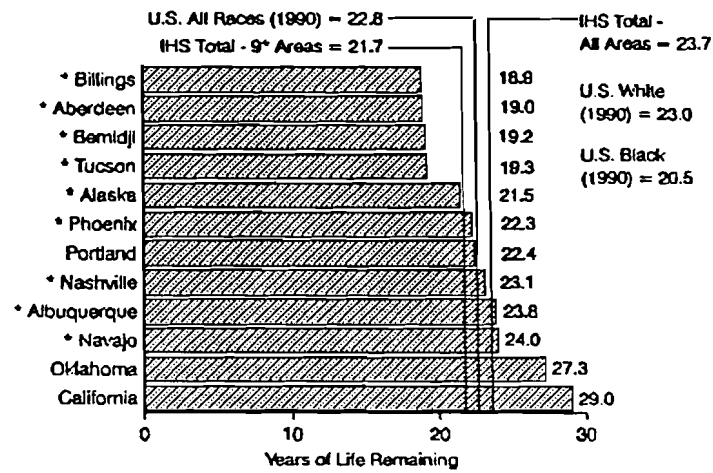
The comparable ratios for the U.S. All Races, White and Black populations were; 1.23, 1.23 and 1.29, respectively.

Life expectancy at age 6-64 years (1989-91) for American Indian males in the 9 IHS Areas was lower than the comparable numbers for U.S. All Races and U.S. White male populations (1990) (ratios of 0.98 and 0.97, respectively), but higher than that for the U.S. Black male population (1990) (ratio of 1.14).

Similarly, life expectancy at age 60-64 years (1989-91) for American Indian females in the 9 IHS Areas was lower than the comparable numbers for U.S. All Races and U.S. White female populations (1990) (ratios of 0.95 and 0.94, respectively), but higher than that for the U.S. Black female population (1990) (ratio of 1.06).



**Chart D3.
Life Expectancy 60-64 Years, Females
CY 1989-1991**



TABLES

Table 1.
Life Expectancy at Selected Ages,
American Indians and Alaska Natives Residing
in the IHS Service Area, Ranked by Area Office, 1989-1991

	Both Sexes	Male	Female	Ratio: Female to Male
A. LIFE EXPECTANCY AT BIRTH				
IHS (12 Areas)	73.2	69.1	77.5	1.12
IHS (9* Areas)	70.2	66.0	74.7	1.13
Aberdeen*	(12) 63.9	(12) 59.2	(12) 69.1	1.17
Alaska*	(10) 68.4	(10) 63.6	(8) 74.0	1.16
Albuquerque*	(3) 74.3	(5) 70.0	(3) 78.5	1.12
Bemidji*	(8) 69.3	(9) 65.9	(9) 73.0	1.11
Billings*	(11) 66.6	(11) 63.2	(11) 70.5	1.12
California	(1) 82.2	(1) 79.2	(1) 85.0	1.07
Nashville*	(4) 73.7	(3) 70.6	(5) 76.6	1.08
Navajo*	(6) 72.1	(7) 66.9	(4) 77.7	1.16
Oklahoma	(2) 79.5	(2) 75.2	(2) 83.4	1.11
Phoenix*	(7) 71.5	(6) 67.7	(7) 75.5	1.12
Portland	(5) 72.9	(5) 70.0	(6) 75.9	1.08
Tucson*	(9) 68.6	(8) 66.3	(10) 70.9	1.07
U.S. All Races (1990)	75.4	71.8	78.8	1.10
U.S. White (1990)	76.1	72.7	79.4	1.09
U.S. Black (1990)	69.1	64.5	73.6	1.14
B. LIFE EXPECTANCY 20-24 YEARS				
IHS (12 Areas)	55.2	51.3	59.1	1.15
IHS (9* Areas)	52.3	48.4	56.4	1.17
Aberdeen*	(12) 46.6	(12) 41.9	(12) 51.8	1.24
Alaska*	(9) 51.1	(10) 47.0	(8) 55.9	1.19
Albuquerque*	(3) 56.1	(4) 52.2	(3) 59.9	1.15
Bemidji*	(10) 51.0	(9) 47.9	(9) 54.4	1.14
Billings*	(11) 49.4	(11) 45.9	(11) 52.9	1.15
California	(1) 63.2	(1) 60.1	(1) 66.0	1.10
Nashville*	(4) 55.9	(3) 52.8	(5) 58.9	1.12
Navajo*	(6) 54.1	(7) 49.4	(4) 59.2	1.20
Oklahoma	(2) 60.6	(2) 56.4	(2) 64.4	1.14
Phoenix*	(7) 53.5	(6) 50.0	(7) 57.1	1.14
Portland	(5) 54.7	(5) 51.8	(6) 57.6	1.11
Tucson*	(9) 51.1	(8) 49.0	(10) 53.0	1.08
U.S. All Races (1990)	56.6	53.3	59.8	1.12
U.S. White (1990)	57.2	54.0	60.3	1.12
U.S. Black (1990)	51.1	46.7	55.3	1.18

() = Area Office rank.

Table 1. (cont'd)
Life Expectancy at Selected Ages,
American Indians and Alaska Natives Residing
in the IHS Service Area, Ranked by Area Office, 1989-1991

	Both Sexes	Male	Female	Ratio: Female to Male
C. LIFE EXPECTANCY 40-44 YEARS				
IHS (12 Areas)	37.7	34.7	40.5	1.17
IHS (9* Areas)	35.3	32.5	38.1	1.17
Aberdeen*	(12) 29.7	(12) 26.2	(12) 33.5	1.28
Alaska*	(8) 35.1	(9) 32.5	(8) 38.0	1.17
Albuquerque*	(3) 38.9	(3) 36.7	(4) 41.0	1.12
Bemidji*	(10) 33.2	(10) 31.1	(9) 35.3	1.14
Billings*	(11) 32.5	(11) 30.1	(10) 35.0	1.16
California	(1) 44.7	(1) 42.2	(1) 46.7	1.11
Nashville*	(5) 37.7	(4) 35.2	(5) 39.9	1.13
Navajo*	(5) 37.7	(6) 34.3	(3) 41.2	1.20
Oklahoma	(2) 41.9	(2) 38.2	(2) 45.1	1.18
Phoenix*	(7) 36.0	(7) 33.6	(7) 38.5	1.15
Portland	(6) 36.9	(5) 34.5	(6) 39.2	1.14
Tucson*	(9) 33.7	(9) 32.5	(11) 34.7	1.07
U.S. All Races (1990)	38.0	35.1	40.6	1.16
U.S. White (1990)	38.4	35.6	41.0	1.15
U.S. Black (1990)	33.6	30.1	36.8	1.22
D. LIFE EXPECTANCY 60-64 YEARS				
IHS (12 Areas)	21.7	19.4	23.7	1.22
IHS (9* Areas)	19.9	18.1	21.7	1.20
Aberdeen*	(12) 16.6	(12) 14.3	(11) 19.0	1.33
Alaska*	(8) 19.3	(9) 17.3	(8) 21.5	1.24
Albuquerque*	(3) 22.6	(3) 21.2	(4) 23.8	1.12
Bemidji*	(10) 17.7	(10) 16.1	(10) 19.2	1.19
Billings*	(11) 17.1	(11) 15.3	(12) 18.9	1.24
California	(1) 27.3	(1) 25.1	(1) 29.0	1.16
Nashville*	(5) 21.2	(6) 19.0	(5) 23.1	1.22
Navajo*	(4) 21.9	(4) 20.0	(3) 24.0	1.20
Oklahoma	(2) 24.8	(2) 21.7	(2) 27.3	1.26
Phoenix*	(6) 20.7	(5) 19.1	(7) 22.3	1.17
Portland	(7) 20.6	(8) 18.6	(6) 22.4	1.20
Tucson*	(9) 19.1	(7) 18.8	(9) 19.3	1.03
U.S. All Races (1990)	20.8	18.5	22.8	1.23
U.S. White (1990)	21.0	18.7	23.0	1.23
U.S. Black (1990)	18.4	15.9	20.5	1.29

() = Area Office rank.

LIFE TABLE FOR THE AMERICAN INDIAN AND ALASKA NATIVE BOTH SEXES
IN THE IHS SERVICE AREA (12 AREAS), 1989-1991

Page 1 of 3

AGE	nAx	nBx	nPx*	nDx*	nMx	1+nAx*nMx	nQx
Under 1 year			95,588	1,038	0.0108631		0.013824
1-4 years	60.814558	2.346041	342,800	251	0.0007325	1.0445467	0.002805
5-9 years	-18.968837	2.765957	409,788	127	0.0003100	0.9941197	0.001559
10-14 years	29.177090	2.093923	372,993	132	0.0003540	1.0103287	0.001752
15-19 years	4.768137	2.221519	343,142	575	0.0016763	1.0079928	0.008315
20-24 years	0.324220	2.358561	299,039	705	0.0023584	1.0007646	0.011783
25-29 years	1.351335	2.427870	315,662	752	0.0023832	1.0032205	0.011878
30-34 years	0.808700	2.413793	296,213	793	0.0026781	1.0021658	0.013362
35-39 years	0.637331	2.364308	251,897	866	0.0034392	1.0021919	0.017158
40-44 years	1.637978	2.348727	206,705	827	0.0040023	1.0065557	0.019881
45-49 years	2.260965	2.348222	156,929	892	0.0056862	1.0128563	0.028070
50-54 years	2.386114	2.374296	129,221	1,009	0.0078112	1.0186384	0.038341
55-59 years	2.279349	2.397544	107,446	1,231	0.0114611	1.0261238	0.055847
60-64 years	2.364082	2.416944	90,092	1,430	0.0158785	1.0375381	0.076520
65-69 years	2.397310	2.438600	75,419	1,673	0.0221909	1.0531985	0.105350
70-74 years	2.361017	2.452586	53,175	1,614	0.0303637	1.0716892	0.141663
75-79 years	2.401990	2.488055	39,650	1,636	0.0412762	1.0991450	0.187765
80-84 years	2.401102	2.518202	22,509	1,506	0.0669311	1.1607084	0.288320
85+ years			17,392	2,020	0.1161880		1.000000
Separation factor	0.145013						
End value constant	0.8324391						
Capital F factor	1.000367						

LIFE TABLE FOR THE AMERICAN INDIAN AND ALASKA NATIVE BOTH SEXES
IN THE IHS SERVICE AREA (12 AREAS), 1989-1991

Page 2 of 3

lx	nDx	Lx	Tx	Ex
100,000	1,382	98,818	7,324,905	73.2
98,618	277	393,822	7,226,087	73.3
98,341	153	491,282	6,832,265	69.5
98,188	172	490,580	6,340,983	64.6
98,016	815	488,269	5,850,403	59.7
97,201	1,145	483,304	5,362,134	55.2
96,056	1,141	477,510	4,878,830	50.8
94,915	1,268	471,514	4,401,320	46.4
93,647	1,607	464,436	3,929,806	42.0
92,040	1,830	455,902	3,465,370	37.7
90,210	2,532	445,104	3,009,468	33.4
87,678	3,362	430,408	2,564,364	29.2
84,316	4,709	410,290	2,133,956	25.3
79,607	6,092	383,311	1,723,666	21.7
73,515	7,745	348,688	1,340,355	18.2
65,770	9,317	305,999	991,667	15.1
56,453	10,600	255,892	685,668	12.1
45,853	13,220	195,974	429,776	9.4
32,633	32,633	233,802	233,802	7.2

LIFE TABLE FOR THE AMERICAN INDIAN AND ALASKA NATIVE BOTH SEXES
IN THE IHS SERVICE AREA (12 AREAS), 1989-1991

Page 3 of 3

Total number of Deaths for 1989-91	19,084 *		
Number of deaths with age not stated, 1989-1991	7 *		
Infant deaths (under 1 year)			
1989	394 *	526	_1
1990	337 *	450	_1
1991	307 *	410	_1
Births			
1988	32,544 *		
1989	34,143 *		
1990	33,554 *		
1991	34,083 *		
Adjustment factor for underreporting of infant deaths	1.335 *		

_1 Number of infant deaths adjusted for underreporting based
on the 1983-86 Linked Birth/Infant Death files from NCHS

LIFE TABLE FOR AMERICAN INDIAN AND ALASKA NATIVE MALES
IN THE IHS SERVICE AREA (12 AREAS), 1989-1991

Page 1 of 3

AGE	nAx	nBx	nPx*	nDx*	nMx	1+nAx*nMx	nQx
Under 1 year			48,238	567	0.0117567		0.014902
1-4 years	52.498087	2.313158	174,261	154	0.0008839	1.0464031	0.003379
5-9 years	-10.133106	2.756757	207,682	74	0.0003564	0.9963886	0.001788
10-14 years	27.017468	2.000000	190,162	87	0.0004576	1.0123632	0.002260
15-19 years	2.111557	2.189150	175,833	415	0.0023607	1.0049848	0.011745
20-24 years	0.709176	2.348497	151,340	561	0.0037077	1.0026294	0.018490
25-29 years	1.785115	2.437419	155,951	585	0.0037520	1.0066978	0.018635
30-34 years	1.681930	2.433239	143,117	555	0.0038788	1.0065239	0.019268
35-39 years	1.239119	2.386020	121,475	568	0.0046768	1.0057951	0.023249
40-44 years	1.940394	2.360939	100,121	564	0.0056344	1.0109330	0.027867
45-49 years	2.259705	2.352994	75,494	556	0.0073664	1.0166459	0.036229
50-54 years	2.434221	2.383437	61,330	606	0.0098830	1.0240574	0.048254
55-59 years	2.368406	2.415468	50,038	721	0.0144121	1.0341337	0.069682
60-64 years	2.403395	2.433688	41,724	840	0.0201365	1.0483960	0.096035
65-69 years	2.453425	2.465628	33,998	911	0.0268013	1.0657550	0.125739
70-74 years	2.435410	2.487376	22,900	912	0.0398337	1.0970114	0.181556
75-79 years	2.463755	2.523258	16,144	840	0.0520426	1.1282202	0.230640
80-84 years	2.473766	2.560628	8,885	763	0.0858931	1.2124794	0.354204
85+ years			6,387	900	0.1409408		1.000000
Separation factor	0.138027						
End value constant	0.8457586						
Capital F factor	1.00021						

LIFE TABLE FOR AMERICAN INDIAN AND ALASKA NATIVE MALES
IN THE IHS SERVICE AREA (12 AREAS), 1989-1991

Page 2 of 3

lx	nDx	Lx	Tx	Ex
100,000	1,490	98,716	6,914,498	69.1
98,510	333	393,270	6,815,782	69.2
98,177	176	490,400	6,422,512	65.4
98,001	221	489,563	5,932,112	60.5
97,780	1,148	486,387	5,442,549	55.7
96,632	1,787	478,963	4,956,162	51.3
94,845	1,767	469,918	4,477,199	47.2
93,078	1,793	461,027	4,007,281	43.1
91,285	2,122	451,362	3,546,254	38.8
89,163	2,485	439,948	3,094,892	34.7
86,678	3,140	426,002	2,654,944	30.6
83,538	4,031	408,082	2,228,942	26.7
79,507	5,540	384,153	1,820,860	22.9
73,967	7,103	352,549	1,436,707	19.4
66,864	8,407	313,591	1,084,158	16.2
58,457	10,613	265,886	770,567	13.2
47,844	11,035	211,376	504,681	10.5
36,809	13,038	150,660	293,305	8.0
23,771	23,771	142,645	142,645	6.0

**LIFE TABLE FOR AMERICAN INDIAN AND ALASKA NATIVE MALES
IN THE IHS SERVICE AREA (12 AREAS), 1989-1991**

Total number of Deaths for 1989-91	19,084 *		
Number of deaths with age not stated, 1989-1991	4 *		
Infant deaths (under 1 year)			
1989	208 *	278	_1
1990	208 *	278	_1
1991	151 *	202	_1
Births			
1988	16,442 *		
1989	17,369 *		
1990	17,017 *		
1991	17,119 *		
Adjustment factor for underreporting of infant deaths	1.335 *		

_1 Number of infant deaths adjusted for underreporting based
on the 1983-86 Linked Birth/Infant Death files from NCHS

LIFE TABLE FOR AMERICAN INDIAN AND ALASKA NATIVE FEMALES
IN THE IHS SERVICE AREA (12 AREAS), 1989-1991

Page 1 of 3

AGE	nAx	nBx	nPx*	nDx*	nMx	1+nAx*nMx	nQx
Under 1 year			47,350	471	0.0099510		0.012709
1-4 years	64.176012	2.386139	168,539	97	0.0005758	1.0369525	0.002221
5-9 years	-10.265090	2.763158	202,106	53	0.0002623	0.9973075	0.001315
10-14 years	31.444020	2.248175	182,831	45	0.0002462	1.0077415	0.001222
15-19 years	9.935047	2.29434	167,309	160	0.0009567	1.0095049	0.004738
20-24 years	-1.178943	2.360294	147,699	144	0.0009753	0.9988502	0.004882
25-29 years	-0.772253	2.394595	159,711	167	0.0010460	0.9991922	0.005234
30-34 years	-1.337288	2.371191	153,096	238	0.0015552	0.9979202	0.007792
35-39 years	-0.939098	2.32712	130,422	298	0.0022858	0.9978534	0.011454
40-44 years	1.168684	2.329872	106,584	263	0.0024685	1.0028849	0.012307
45-49 years	2.179068	2.339099	81,435	336	0.0041276	1.0089943	0.020454
50-54 years	2.316717	2.366181	67,891	403	0.0059382	1.0137571	0.029288
55-59 years	2.148899	2.377499	57,408	510	0.0088872	1.0190977	0.043603
60-64 years	2.304852	2.394983	48,368	590	0.0122028	1.0281256	0.059345
65-69 years	2.315028	2.408986	41,421	762	0.0184035	1.0426046	0.088257
70-74 years	2.264502	2.415853	30,275	702	0.0231963	1.0525281	0.110193
75-79 years	2.329673	2.453345	23,506	796	0.0338766	1.0789214	0.156993
80-84 years	2.330910	2.482761	13,624	743	0.0545568	1.1271670	0.242009
85+ years			11,005	1,120	0.1018106		1.000000
Separation factor	0.153517						
End value constant	0.8179862						
Capital F factor	1.00038						

LIFE TABLE FOR AMERICAN INDIAN AND ALASKA NATIVE FEMALES Page 2 of 3
 IN THE IHS SERVICE AREA (12 AREAS), 1989-1991

lx	nDx	Lx	Tx	Ex
100,000	1,271	98,924	7,747,159	77.5
98,729	219	394,393	7,648,235	77.5
98,510	130	492,191	7,253,842	73.6
98,380	120	491,630	6,761,651	68.7
98,260	466	490,231	6,270,021	63.8
97,794	477	487,844	5,779,790	59.1
97,317	509	485,366	5,291,946	54.4
96,808	754	482,252	4,806,580	49.7
96,054	1,100	477,710	4,324,328	45.0
94,954	1,169	472,046	3,846,618	40.5
93,785	1,918	464,439	3,374,572	36.0
91,867	2,691	452,968	2,910,133	31.7
89,176	3,888	436,636	2,457,165	27.6
85,288	5,061	414,319	2,020,529	23.7
80,227	7,081	384,077	1,606,210	20.0
73,146	8,060	346,258	1,222,133	16.7
65,086	10,218	300,362	875,875	13.5
54,868	13,279	241,371	575,513	10.5
41,589	41,589	334,142	334,142	8.0

LIFE TABLE FOR AMERICAN INDIAN AND ALASKA NATIVE FEMALES
IN THE IHS SERVICE AREA (12 AREAS), 1989-1991

Page 3 of 3

Total number of Deaths for 1989-91	7,901 *	
Number of deaths with age not stated, 1989-1991	3 *	
Infant deaths (under 1 year)		
1989	186 *	248 _1
1990	129 *	172 _1
1991	156 *	208 _1
Births		
1988	16,102 *	
1989	16,774 *	
1990	16,537 *	
1991	16,964 *	
Adjustment factor for underreporting of Infant Deaths	1.335 *	

_1 Number of infant deaths adjusted for underreporting based
on the 1983-86 Linked Birth/Infant Deaths files from NCHS

LIFE TABLE FOR AMERICAN INDIAN AND ALASKA NATIVE BOTH SEXES,
IN THE IHS SERVICE AREA (9 AREAS), 1989-1991

Page 1 of 3

AGE	nAx	nBx	nPx*	nDx*	nMx	1+nAx*nMx	nQx
Under 1 year			62,786	797	0.0126988		0.014140
1-4 years	60.814558	2.346041	220,821	199	0.0009015	1.0548243	0.003419
5-9 years	-18.968837	2.765957	254,092	102	0.0004016	0.9923821	0.002023
10-14 years	29.177090	2.093923	225,999	106	0.0004692	1.0136899	0.002314
15-19 years	4.768137	2.221519	203,225	439	0.0021610	1.0103039	0.010695
20-24 years	0.324220	2.358561	180,063	550	0.0030557	1.0009907	0.015263
25-29 years	1.351335	2.427870	190,484	578	0.0030355	1.0041020	0.015115
30-34 years	0.808700	2.413793	174,010	593	0.0034092	1.0027570	0.016999
35-39 years	0.637331	2.364308	143,557	620	0.0043205	1.0027536	0.021543
40-44 years	1.637978	2.348727	114,926	595	0.0051792	1.0084834	0.025678
45-49 years	2.260965	2.348222	86,651	639	0.0073773	1.0166798	0.036281
50-54 years	2.386114	2.374296	72,157	707	0.0098019	1.0233885	0.047889
55-59 years	2.279349	2.397544	60,093	799	0.0133012	1.0303181	0.064549
60-64 years	2.364082	2.416944	48,489	880	0.0181555	1.0429211	0.087042
65-69 years	2.397310	2.438600	38,820	1,013	0.0261049	1.0625815	0.122837
70-74 years	2.361017	2.452586	27,555	1,042	0.0378299	1.0893170	0.173640
75-79 years	2.401990	2.488055	20,873	999	0.0478794	1.1150058	0.214705
80-84 years	2.401102	2.518202	11,752	980	0.0834223	1.2003055	0.347504
85+ years			9,401	1,281	0.1363148		1.000000
Separation factor	0.145013						
End value constant	0.8324391						
Capital F factor	1.000387						

LIFE TABLE FOR AMERICAN INDIAN AND ALASKA NATIVE BOTH SEXES,
IN THE IHS SERVICE AREA (9 AREAS), 1989-1991

Page 2 of 3

lx	nDx	Lx	Tx	Ex
100,000	1,414	98,791	7,021,944	70.2
98,586	337	393,553	6,923,153	70.2
98,249	199	490,695	6,529,600	66.5
98,050	227	489,775	6,038,905	61.6
97,823	1,046	486,791	5,549,130	56.7
96,777	1,477	480,401	5,062,339	52.3
95,300	1,441	473,001	4,581,938	48.1
93,859	1,596	465,443	4,108,937	43.8
92,263	1,988	456,615	3,643,494	39.5
90,275	2,318	445,931	3,186,879	35.3
87,957	3,191	432,292	2,740,948	31.2
84,766	4,059	414,193	2,308,656	27.2
80,707	5,210	391,044	1,894,463	23.5
75,497	6,571	361,603	1,503,419	19.9
68,926	8,467	323,982	1,141,816	16.6
60,459	10,498	276,548	817,834	13.5
49,961	10,727	223,116	541,286	10.8
39,234	13,634	161,837	318,170	8.1
25,600	25,600	156,333	156,333	6.1

LIFE TABLE FOR AMERICAN INDIAN AND ALASKA NATIVE BOTH SEXES,
IN THE IHS SERVICE AREA (9 AREAS), 1989-1991

Page 3 of 3

Total number of
Deaths for 1989-91 12,924 *

Number of deaths
with age not
stated, 1989-1991 5 *

Infant deaths (under 1 year)			
1989	293 *	340	_1
1990	256 *	297	_1
1991	248 *	288	_1

Births	
1988	21,164 *
1989	22,279 *
1990	21,976 *
1991	22,060 *

Adjustment factor
for underreporting
of infant deaths 1.16 *

_1 Number of infant deaths adjusted for underreporting based
on the 1983-86 Linked Birth/Infant Death files from NCHS

LIFE TABLE FOR AMERICAN INDIAN AND ALASKA NATIVE MALES
IN THE IHS SERVICE AREA (9 AREAS), 1989-1991

Page 1 of 3

AGE	nAx	nBx	nPx*	nDx*	nMx	1+nAx*nMx	nQx
Under 1 year			31,276	445	0.0142315		0.015660
1-4 years	52.498087	2.313158	112,099	119	0.0010618	1.0557425	0.004023
5-9 years	-10.133106	2.756757	129,152	62	0.0004802	0.9951341	0.002413
10-14 years	27.017468	2.000000	114,252	68	0.0005953	1.0160835	0.002929
15-19 years	2.111557	2.189150	102,580	326	0.0031787	1.0067120	0.015788
20-24 years	0.709176	2.348497	89,447	442	0.0049426	1.0035052	0.024627
25-29 years	1.785115	2.437419	93,743	452	0.0048228	1.0086093	0.023908
30-34 years	1.681930	2.433239	83,776	418	0.0049907	1.0083940	0.024746
35-39 years	1.239119	2.386020	69,175	415	0.0060007	1.0074356	0.029782
40-44 years	1.940394	2.360939	55,677	415	0.0074554	1.0144664	0.036745
45-49 years	2.259705	2.352994	41,456	402	0.0096993	1.0219176	0.047456
50-54 years	2.434221	2.383437	33,915	421	0.0124163	1.0302240	0.060260
55-59 years	2.368406	2.415468	27,835	466	0.0167454	1.0396599	0.080533
60-64 years	2.403395	2.433688	22,354	511	0.0228647	1.0549529	0.108368
65-69 years	2.453425	2.465628	17,643	554	0.0314078	1.0770567	0.145804
70-74 years	2.435410	2.487376	12,038	580	0.0481919	1.1173670	0.215649
75-79 years	2.463755	2.523258	8,923	514	0.0576173	1.1419549	0.252275
80-84 years	2.473766	2.560628	5,033	507	0.1007585	1.2492530	0.403275
85+ years			3,876	616	0.1589636		1.000000
Separation factor	0.138027						
End value constant	0.8457586						
Capital F factor	1.000232						

LIFE TABLE FOR AMERICAN INDIAN AND ALASKA NATIVE MALES
IN THE IHS SERVICE AREA (9 AREAS), 1989-1991

Page 2 of 3

lx	nDx	Lx	Tx	Ex
100,000	1,566	98,650	6,595,196	66.0
98,434	396	392,820	6,496,546	66.0
98,038	237	489,537	6,103,726	62.3
97,801	286	488,433	5,614,189	57.4
97,515	1,540	484,204	5,125,756	52.6
95,975	2,364	474,323	4,641,552	48.4
93,611	2,238	462,600	4,167,229	44.5
91,373	2,261	451,363	3,704,629	40.5
89,112	2,654	439,228	3,253,266	36.5
86,458	3,177	424,789	2,814,038	32.5
83,281	3,952	407,106	2,389,249	28.7
79,329	4,780	385,252	1,982,143	25.0
74,549	6,004	358,243	1,596,891	21.4
68,545	7,428	324,648	1,238,648	18.1
61,117	8,911	283,614	914,000	15.0
52,206	11,258	233,027	630,386	12.1
40,948	10,330	178,675	397,359	9.7
30,618	12,347	121,474	218,684	7.1
18,271	18,271	97,210	97,210	5.3

LIFE TABLE FOR AMERICAN INDIAN AND ALASKA NATIVE MALES
IN THE IHS SERVICE AREA (9 AREAS), 1989-1991

Page 3 of 3

Total number of
Deaths for 1987-89

12,924 *

Number of deaths
with age not
stated, 1987-1989

3 *

Infant deaths
(under 1 year)

1989

161 *

187 _1

1990

160 *

186 _1

1991

124 *

144 _1

Births

1988

10,671 *

1989

11,247 *

1990

11,093 *

1991

10,986 *

Adjustment factor
for underreporting
of infant deaths

1.16 *

_1 Number of infant deaths adjusted for underreporting based
on the 1983-86 Linked Birth/Infant Death files from NCHS

LIFE TABLE FOR AMERICAN INDIAN AND ALASKA NATIVE FEMALES
IN THE IHS SERVICE AREA (9 AREAS), 1989-1991

Page 1 of 3

AGE	nAx	nBx	nPx*	nDx*	nMx	1+nAx*nMx	nQx
Under 1 year			31,510	352	0.0111754		0.012589
1-4 years	64.176012	2.386139	108,722	80	0.0007361	1.0472400	0.002812
5-9 years	-10.265090	2.763158	124,940	40	0.0003203	0.9967121	0.001607
10-14 years	31.444020	2.248175	111,747	38	0.0003402	1.0106973	0.001683
15-19 years	9.935047	2.29434	100,645	113	0.0011232	1.0111590	0.005554
20-24 years	-1.178943	2.360294	90,616	108	0.0011923	0.9985943	0.005970
25-29 years	-0.772253	2.394595	96,741	126	0.0013029	0.9989938	0.006521
30-34 years	-1.337288	2.371191	90,234	175	0.0019402	0.9974054	0.009726
35-39 years	-0.939098	2.32712	74,382	205	0.0027571	0.9974108	0.013821
40-44 years	1.168684	2.329872	59,249	180	0.0030392	1.0035519	0.015142
45-49 years	2.179068	2.339099	45,195	237	0.0052460	1.0114314	0.025934
50-54 years	2.316717	2.366181	38,242	286	0.0074816	1.0173327	0.036771
55-59 years	2.148899	2.377499	32,258	333	0.0103270	1.0221917	0.050514
60-64 years	2.304852	2.394983	26,135	369	0.0141244	1.0325547	0.068395
65-69 years	2.315028	2.408986	21,177	459	0.0216828	1.0501963	0.103232
70-74 years	2.264502	2.415853	15,517	462	0.0297853	1.0674489	0.139516
75-79 years	2.329673	2.453345	11,950	485	0.0406014	1.0945880	0.185464
80-84 years	2.330910	2.482761	6,719	473	0.0704246	1.1641534	0.302471
85+ years			5,525	665	0.1204085		1.000000
Separation factor	0.153517						
End value constant	0.8179862						
Capital F factor	1.000386						

LIFE TABLE FOR AMERICAN INDIAN AND ALASKA NATIVE FEMALES
IN THE IHS SERVICE AREA (9 AREAS), 1989-1991

Page 2 of 3

lx	nDx	Lx	Tx	Ex
100,000	1,259	98,934	7,473,917	74.7
98,741	278	394,301	7,374,983	74.7
98,463	158	491,878	6,980,682	70.9
98,305	165	491,154	6,488,804	66.0
98,140	545	489,450	5,997,650	61.1
97,595	583	486,599	5,508,200	56.4
97,012	633	483,544	5,021,601	51.8
96,379	937	479,673	4,538,057	47.1
95,442	1,319	474,141	4,058,384	42.5
94,123	1,425	467,295	3,584,243	38.1
92,698	2,404	457,867	3,116,948	33.6
90,294	3,320	443,614	2,659,081	29.4
86,974	4,393	424,426	2,215,467	25.5
82,581	5,648	399,378	1,791,041	21.7
76,933	7,942	365,533	1,391,663	18.1
68,991	9,625	321,702	1,026,130	14.9
59,366	11,010	269,819	704,428	11.9
48,356	14,626	205,467	434,609	9.0
33,730	33,730	229,142	229,142	6.8

LIFE TABLE FOR AMERICAN INDIAN AND ALASKA NATIVE FEMALES
IN THE IHS SERVICE AREA (9 AREAS), 1989-1991

Page 3 of 3

Total number of
Deaths for 1989-91

5,188 *

Number of deaths
with age not
stated, 1989-1991

2 *

Infant deaths
(under 1 year)

1989

132 *

153 _1

1990

96 *

111 _1

1991

124 *

144 _1

Births

1988

10,493 *

1989

11,032 *

1990

10,883 *

1991

11,074 *

Adjustment factor
for underreporting
of infant deaths

1.16 *

_1 Number of infant deaths adjusted for underreporting based
on the 1983-86 Linked Birth/Infant Deaths files from NCHS

LIFE TABLE FOR AMERICAN INDIAN AND ALASKA NATIVE BOTH SEXES,
IN THE IHS SERVICE AREA (ABERDEEN) 1989-1991

Page 1 of 3

AGE	nAx	nBx	nPx*	nDx*	nMx	1+nAx*nMx	nQx
Under 1 year			7,225	144	0.0199308		0.023606
1-4 years	60.814558	2.346041	26,677	26	0.0009746	1.0592699	0.003680
5-9 years	-18.968837	2.765957	31,000	16	0.0005161	0.9902102	0.002606
10-14 years	29.177090	2.093923	28,027	10	0.0003568	1.0104104	0.001766
15-19 years	4.768137	2.221519	22,918	66	0.0028798	1.0137313	0.014204
20-24 years	0.324220	2.358561	17,597	65	0.0036938	1.0011976	0.018447
25-29 years	1.351335	2.427870	18,072	62	0.0034307	1.0046360	0.017074
30-34 years	0.808700	2.413793	16,050	59	0.0036760	1.0029728	0.018326
35-39 years	0.637331	2.364308	13,288	77	0.0057947	1.0036931	0.028867
40-44 years	1.637978	2.348727	11,036	80	0.0072490	1.0118737	0.035820
45-49 years	2.260965	2.348222	8,286	119	0.0143616	1.0324711	0.069550
50-54 years	2.386114	2.374296	7,299	134	0.0183587	1.0438060	0.087941
55-59 years	2.279349	2.397544	5,966	149	0.0249749	1.0569265	0.118149
60-64 years	2.364082	2.416944	4,956	140	0.0282486	1.0667820	0.132401
65-69 years	2.397310	2.438600	4,132	171	0.0413843	1.0992110	0.188245
70-74 years	2.361017	2.452586	2,996	154	0.0514019	1.1213608	0.229194
75-79 years	2.401990	2.488055	2,146	129	0.0601118	1.1443879	0.262637
80-84 years	2.401102	2.518202	1,161	144	0.1240310	1.2978111	0.477847
85+ years			820	146	0.1780488		1.000000
Separation factor	0.145013						
End value constant	0.8324391						
Capital F factor	1						

LIFE TABLE FOR AMERICAN INDIAN AND ALASKA NATIVE BOTH SEXES,
IN THE IHS SERVICE AREA (ABERDEEN) 1989-1991.

Page 2 of 3

lx	nDx	Lx	Tx	Ex
100,000	2,361	97,981	6,389,484	63.9
97,639	359	389,714	6,291,503	64.4
97,280	254	485,697	5,901,789	60.7
97,026	171	484,772	5,416,092	55.8
96,855	1,376	481,218	4,931,320	50.9
95,479	1,761	473,242	4,450,102	46.6
93,718	1,600	464,705	3,976,860	42.4
92,118	1,688	456,516	3,512,155	38.1
90,430	2,610	445,979	3,055,639	33.8
87,820	3,146	431,711	2,609,660	29.7
84,674	5,889	409,541	2,177,949	25.7
78,785	6,928	377,476	1,768,408	22.4
71,857	8,490	338,930	1,390,932	19.4
63,367	8,390	296,557	1,052,002	16.6
54,977	10,349	249,648	755,445	13.7
44,628	10,228	198,055	505,797	11.3
34,400	9,035	149,520	307,742	8.9
25,365	12,121	96,302	158,222	6.2
13,244	13,244	61,920	61,920	4.7

LIFE TABLE FOR AMERICAN INDIAN AND ALASKA NATIVE BOTH SEXES,
IN THE IHS SERVICE AREA (ABERDEEN) 1989-1991

Page 3 of 3

Total number of
Deaths for 1989-91

1,891 *

Number of deaths
with age not
stated, 1989-1991

0 *

Infant deaths
(under 1 year)

1989

54 *

72 _1

1990

48 *

64 _1

1991

42 *

56 _1

Births

1988

2,705 *

1989

2,800 *

1990

2,610 *

1991

2,812 *

Adjustment factor
for underreporting
of infant deaths

1.335 *

_1 Number of infant deaths adjusted for underreporting based
on the 1983-86 Linked Birth/Infant Death files from NCHS

LIFE TABLE FOR AMERICAN INDIAN AND ALASKA NATIVE MALES
IN THE IHS SERVICE AREA (ABERDEEN), 1989-1991

Page 1 of 3

AGE	nAx	nBx	nPx*	nDx*	nMx	1+nAx*nMx	nQx
Under 1 year			3,608	74	0.0205100		0.024291
1-4 years	60.814558	2.346041	13,722	14	0.0010203	1.0620491	0.003843
5-9 years	-18.968837	2.765957	16,004	4	0.0002499	0.9952597	0.001255
10-14 years	29.177090	2.093923	14,190	5	0.0003524	1.0102820	0.001744
15-19 years	4.768137	2.221519	11,652	44	0.0037762	1.0180054	0.018547
20-24 years	0.324220	2.358561	8,361	56	0.0066978	1.0021716	0.033416
25-29 years	1.351335	2.427870	8,697	47	0.0054042	1.0073029	0.026825
30-34 years	0.808700	2.413793	7,725	37	0.0047896	1.0038733	0.023856
35-39 years	0.637331	2.364308	6,164	53	0.0085983	1.0054800	0.042757
40-44 years	1.637978	2.348727	5,294	51	0.0096335	1.0157795	0.047419
45-49 years	2.260965	2.348222	3,943	81	0.0205427	1.0464463	0.098155
50-54 years	2.386114	2.374296	3,599	81	0.0225063	1.0537026	0.106796
55-59 years	2.279349	2.397544	2,647	93	0.0351341	1.0800829	0.162645
60-64 years	2.364082	2.416944	2,294	82	0.0357454	1.0845051	0.164801
65-69 years	2.397310	2.438600	1,828	98	0.0536105	1.1285210	0.237525
70-74 years	2.361017	2.452586	1,240	89	0.0717742	1.1694601	0.306869
75-79 years	2.401990	2.488055	900	69	0.0766667	1.1841526	0.323720
80-84 years	2.401102	2.518202	467	79	0.1691649	1.4061822	0.601504
85+ years			294	68	0.2312925		1.000000
Separation factor	0.145013						
End value constant	0.8324391						
Capital F factor	1						

LIFE TABLE FOR AMERICAN INDIAN AND ALASKA NATIVE MALES
IN THE IHS SERVICE AREA (ABERDEEN), 1989-1991

Page 2 of 3

lx	nDx	Lx	Tx	Ex
100,000	2,429	97,923	5,924,375	59.2
97,571	375	389,404	5,826,452	59.7
97,196	122	485,643	5,437,048	55.9
97,074	169	485,016	4,951,405	51.0
96,905	1,797	480,533	4,466,389	46.1
95,108	3,178	468,044	3,985,856	41.9
91,930	2,466	453,663	3,517,812	38.3
89,464	2,134	442,169	3,064,149	34.3
87,330	3,734	427,822	2,621,980	30.0
83,596	3,964	408,670	2,194,158	26.2
79,632	7,816	379,806	1,785,488	22.4
71,816	7,670	340,869	1,405,682	19.6
64,146	10,433	295,716	1,064,813	16.6
53,713	8,852	247,170	769,097	14.3
44,861	10,656	198,319	521,927	11.6
34,205	10,496	145,283	323,608	9.5
23,709	7,675	99,449	178,325	7.5
16,034	9,645	55,882	78,876	4.9
6,389	6,389	22,994	22,994	3.6

LIFE TABLE FOR AMERICAN INDIAN AND ALASKA NATIVE MALES
IN THE IHS SERVICE AREA (ABERDEEN), 1989-1991

Page 3 of 3

Total number of Deaths for 1989-91	1,125 *	
Number of deaths with age not stated, 1989-1991	0 *	
Infant deaths (under 1 year)		
1989	26 *	35 _1
1990	28 *	37 _1
1991	20 *	27 _1
Births		
1988	1,363 *	
1989	1,395 *	
1990	1,303 *	
1991	1,415 *	
Adjustment factor for underreporting of infant deaths	1.335 *	

_1 Number of infant deaths adjusted for underreporting based
on the 1983-86 Linked Birth/Infant Death files from NCHS

LIFE TABLE FOR AMERICAN INDIAN AND ALASKA NATIVE FEMALES
IN THE IHS SERVICE AREA (ABERDEEN), 1989-1991

Page 1 of 3

AGE	nAx	nBx	nPx*	nDx*	nMx	1+nAx*nMx	nQx
Under 1 year			3,617	70	0.0193531		0.022933
1-4 years	60.814558	2.346041	12,955	12	0.0009263	1.0563325	0.003508
5-9 years	-18.968837	2.765957	14,996	12	0.0008002	0.9848211	0.004063
10-14 years	29.177090	2.093923	13,837	5	0.0003614	1.0105446	0.001788
15-19 years	4.768137	2.221519	11,266	22	0.0019528	1.0093112	0.009674
20-24 years	0.324220	2.358561	9,236	9	0.0009744	1.0003159	0.004870
25-29 years	1.351335	2.427870	9,375	15	0.0016000	1.0021621	0.007983
30-34 years	0.808700	2.413793	8,325	22	0.0026426	1.0021371	0.013185
35-39 years	0.637331	2.364308	7,124	24	0.0033689	1.0021471	0.016808
40-44 years	1.637978	2.348727	5,742	29	0.0050505	1.0082726	0.025045
45-49 years	2.260965	2.348222	4,343	38	0.0087497	1.0197828	0.042900
50-54 years	2.386114	2.374296	3,700	53	0.0143243	1.0341794	0.069254
55-59 years	2.279349	2.397544	3,319	56	0.0168726	1.0384585	0.081239
60-64 years	2.364082	2.416944	2,662	58	0.0217881	1.0515089	0.103604
65-69 years	2.397310	2.438600	2,304	73	0.0316840	1.0759564	0.147236
70-74 years	2.361017	2.452586	1,756	65	0.0370159	1.0873952	0.170204
75-79 years	2.401990	2.488055	1,246	60	0.0481541	1.1156657	0.215809
80-84 years	2.401102	2.518202	694	65	0.0936599	1.2248870	0.382321
85+ years			526	78	0.1482890		1.000000

LIFE TABLE FOR AMERICAN INDIAN AND ALASKA NATIVE FEMALES
IN THE IHS SERVICE AREA (ABERDEEN), 1989-1991

Page 2 of 3

lx	nDx	Lx	Tx	Ex
100,000	2,293	98,040	6,906,786	69.1
97,707	343	390,023	6,808,746	69.7
97,364	396	485,725	6,418,723	65.9
96,968	173	484,478	5,932,998	61.2
96,795	936	481,896	5,448,520	56.3
95,859	467	478,194	4,966,624	51.8
95,392	761	475,112	4,488,430	47.1
94,631	1,248	470,143	4,013,318	42.4
93,383	1,570	463,203	3,543,175	37.9
91,813	2,299	453,665	3,079,972	33.5
89,514	3,840	438,553	2,626,307	29.3
85,674	5,933	414,283	2,187,754	25.5
79,741	6,478	383,174	1,773,471	22.2
73,263	7,590	347,970	1,390,297	19.0
65,673	9,669	304,786	1,042,327	15.9
56,004	9,532	256,642	737,541	13.2
46,472	10,029	207,407	480,899	10.3
36,443	13,933	147,129	273,492	7.5
22,510	22,510	126,363	126,363	5.6

LIFE TABLE FOR AMERICAN INDIAN AND ALASKA NATIVE FEMALES
IN THE IHS SERVICE AREA (ABERDEEN), 1989-1991

Page 3 of 3

Total number of Deaths for 1989-91	766 *	
Number of deaths with age not stated, 1989-1991	0 *	
Infant deaths (under 1 year)		
1989	28 *	37 _1
1990	20 *	27 _1
1991	22 *	29 _1
Births		
1988	1,342 *	
1989	1,405 *	
1990	1,307 *	
1991	1,397 *	
Adjustment factor for underreporting of infant deaths	1.335 *	

_1 Number of infant deaths adjusted for underreporting based
on the 1983-86 Linked Birth/Infant Death files from NCHS

LIFE TABLE FOR THE AMERICAN INDIAN AND ALASKA NATIVE BOTH SEXES,
IN THE IHS SERVICE AREA (ALASKA AREA), 1989-1991

Page 1 of 3

AGE	nAx	nBx	nPx*	nDx*	nMx	1+nAx*nMx	nQx
Under 1 year			7,956	130	0.0163399		0.019615
1-4 years	60.814558	2.346041	28,470	29	0.0010186	1.0619457	0.003837
5-9 years	-18.968837	2.765957	30,672	18	0.0005869	0.9888672	0.002968
10-14 years	29.177090	2.093923	24,712	15	0.0006070	1.0177105	0.002982
15-19 years	4.768137	2.221519	21,518	64	0.0029743	1.0141819	0.014664
20-24 years	0.324220	2.358561	21,034	92	0.0043739	1.0014181	0.021839
25-29 years	1.351335	2.427870	24,462	111	0.0045377	1.0061320	0.022550
30-34 years	0.808700	2.413793	22,407	103	0.0045968	1.0037174	0.022899
35-39 years	0.637331	2.364308	18,829	92	0.0048861	1.0031141	0.024355
40-44 years	1.637978	2.348727	13,840	72	0.0052023	1.0085213	0.025792
45-49 years	2.260965	2.348222	10,738	77	0.0071708	1.0162129	0.035282
50-54 years	2.386114	2.374296	8,605	73	0.0084834	1.0202424	0.041575
55-59 years	2.279349	2.397544	7,677	89	0.0115931	1.0264247	0.056473
60-64 years	2.364082	2.416944	5,877	110	0.0187170	1.0442485	0.089619
65-69 years	2.397310	2.438600	4,666	122	0.0261466	1.0626815	0.123022
70-74 years	2.361017	2.452586	3,007	107	0.0355836	1.0840135	0.164129
75-79 years	2.401990	2.488055	2,436	145	0.0595238	1.1429756	0.260390
80-84 years	2.401102	2.518202	1,285	120	0.0933852	1.2242274	0.381405
85+ years			870	133	0.1528736		1.000000
Separation factor	0.145013						
End value constant	0.8324391						
Capital F factor	1						

LIFE TABLE FOR THE AMERICAN INDIAN AND ALASKA NATIVE BOTH SEXES, Page 2 of 3
IN THE IHS SERVICE AREA (ALASKA AREA), 1989-1991

lx	nDx	Lx	Tx	Ex
100,000	1,962	98,323	6,837,270	68.4
98,038	376	391,270	6,738,947	68.7
97,662	290	487,508	6,347,677	65.0
97,372	290	486,253	5,860,169	60.2
97,082	1,424	482,247	5,373,916	55.4
95,658	2,089	473,363	4,891,669	51.1
93,569	2,110	462,722	4,418,306	47.2
91,459	2,094	452,241	3,955,584	43.2
89,365	2,176	441,680	3,503,343	39.2
87,189	2,249	430,663	3,061,663	35.1
84,940	2,997	417,662	2,631,000	31.0
81,943	3,407	401,626	2,213,338	27.0
78,536	4,435	382,047	1,811,712	23.1
74,101	6,641	354,454	1,429,665	19.3
67,460	8,299	317,062	1,075,211	15.9
59,161	9,710	271,990	758,149	12.8
49,451	12,877	215,216	486,159	9.8
36,574	13,949	147,744	270,943	7.4
22,625	22,625	123,199	123,199	5.4

LIFE TABLE FOR THE AMERICAN INDIAN AND ALASKA NATIVE BOTH SEXES,
IN THE IHS SERVICE AREA (ALASKA AREA), 1989-1991

Page 3 of 3

Total number of deaths for 1989-91	1,702 *	
Number of deaths with age not stated, 1989-1991	0 *	
Infant deaths (under 1 year)		
1989	47 *	63 _1
1990	47 *	63 _1
1991	36 *	48 _1
Births		
1988	2,758 *	
1989	3,022 *	
1990	3,099 *	
1991	3,055 *	
Adjustment factor for underreporting of infant deaths	1.335 *	

_1 Number of infant deaths adjusted for underreporting based
on the 1983-86 Linked Birth/Infant Death files from NCHS

LIFE TABLE FOR THE AMERICAN INDIAN AND ALASKA NATIVE MALES
IN THE IHS SERVICE AREA (ALASKA AREA), 1989-1991

Page 1 of 3

AGE	nAx	nBx	nPx*	nDx*	nMx	1+nAx*nMx	nQx
Under 1 year			3,994	87	0.0217827		0.026087
1-4 years	60.814558	2.346041	14,468	21	0.0014515	1.0882723	0.005335
5-9 years	-18.968837	2.765957	15,551	10	0.0006430	0.9878030	0.003255
10-14 years	29.177090	2.093923	12,645	13	0.0010281	1.0299970	0.004991
15-19 years	4.768137	2.221519	11,080	45	0.0040614	1.0193653	0.019921
20-24 years	0.324220	2.358561	10,614	77	0.0072546	1.0023521	0.036188
25-29 years	1.351335	2.427870	12,393	91	0.0073429	1.0099227	0.036354
30-34 years	0.808700	2.413793	10,975	66	0.0060137	1.0048633	0.029923
35-39 years	0.637331	2.364308	9,560	62	0.0064854	1.0041333	0.032294
40-44 years	1.637978	2.348727	6,938	50	0.0072067	1.0118044	0.035613
45-49 years	2.260965	2.348222	5,425	42	0.0077419	1.0175042	0.038044
50-54 years	2.386114	2.374296	4,301	46	0.0106952	1.0255200	0.052145
55-59 years	2.279349	2.397544	3,832	56	0.0146138	1.0333100	0.070714
60-64 years	2.364082	2.416944	2,841	68	0.0239352	1.0565848	0.113267
65-69 years	2.397310	2.438600	2,287	80	0.0349803	1.0838586	0.161369
70-74 years	2.361017	2.452586	1,316	59	0.0448328	1.1058510	0.202707
75-79 years	2.401990	2.488055	1,069	75	0.0701590	1.1685212	0.300204
80-84 years	2.401102	2.518202	513	63	0.1228070	1.2948721	0.474205
85+ years			406	73	0.1798030		1.000000
Separation factor	0.145013						
End value constant	0.8324391						
Capital F factor	1						

LIFE TABLE FOR THE AMERICAN INDIAN AND ALASKA NATIVE MALES
IN THE IHS SERVICE AREA (ALASKA AREA), 1989-1991

Page 2 of 3

lx	nDx	Lx	Tx	Ex
100,000	2,609	97,769	6,355,730	63.6
97,391	520	388,344	6,257,961	64.3
96,871	315	483,484	5,869,617	60.6
96,556	482	481,771	5,386,133	55.8
96,074	1,914	476,118	4,904,362	51.0
94,160	3,407	462,764	4,428,244	47.0
90,753	3,299	445,755	3,965,480	43.7
87,454	2,617	430,953	3,519,725	40.2
84,837	2,740	417,707	3,088,772	36.4
82,097	2,924	403,617	2,671,065	32.5
79,173	3,012	388,792	2,267,448	28.6
76,161	3,971	371,377	1,878,656	24.7
72,190	5,105	348,711	1,507,279	20.9
67,085	7,599	317,059	1,158,568	17.3
59,486	9,599	274,022	841,509	14.1
49,887	10,112	224,634	567,487	11.4
39,775	11,941	169,165	342,853	8.6
27,834	13,199	105,932	173,688	6.2
14,635	14,635	67,756	67,756	4.6

LIFE TABLE FOR THE AMERICAN INDIAN AND ALASKA NATIVE MALES
IN THE IHS SERVICE AREA (ALASKA AREA), 1989-1991

Page 3 of 3

Total number of
Deaths for 1989-91

1,084 *

Number of deaths
with age not
stated, 1989-1991

0 *

Infant deaths
(under 1 year)

1989

32 *

43 _1

1990

32 *

43 _1

1991

23 *

31 _1

Births

1988

1,384 *

1989

1,536 *

1990

1,578 *

1991

1,522 *

Adjustment factor
for underreporting
of infant deaths

1.335 *

_1 Number of infant deaths adjusted for underreporting based
on the 1983-86 Linked Birth/Infant Death files from NCHS

LIFE TABLE FOR THE AMERICAN INDIAN AND ALASKA NATIVE FEMALES,
IN THE IHS SERVICE AREA (ALASKA AREA), 1989-1991

Page 1 of 3

AGE	nAx	nBx	nPx*	nDx*	nMx	1+nAx*nMx	nQx
Under 1 year			3,962	43	0.0108531		0.012992
1-4 years	60.814558	2.346041	14,002	8	0.0005713	1.0347434	0.002208
5-9 years	-18.968837	2.765957	15,121	8	0.0005291	0.9899636	0.002672
10-14 years	29.177090	2.093923	12,067	2	0.0001657	1.0048346	0.000825
15-19 years	4.768137	2.221519	10,438	19	0.0018203	1.0086794	0.009023
20-24 years	0.324220	2.358561	10,420	15	0.0014395	1.0004667	0.007194
25-29 years	1.351335	2.427870	12,069	20	0.0016571	1.0022393	0.008267
30-34 years	0.808700	2.413793	11,432	37	0.0032365	1.0026174	0.016140
35-39 years	0.637331	2.364308	9,269	30	0.0032366	1.0020628	0.016150
40-44 years	1.637978	2.348727	6,902	22	0.0031875	1.0052211	0.015855
45-49 years	2.260965	2.348222	5,313	35	0.0065876	1.0148943	0.032455
50-54 years	2.386114	2.374296	4,304	27	0.0062732	1.0149686	0.030903
55-59 years	2.279349	2.397544	3,845	33	0.0085826	1.0195627	0.042090
60-64 years	2.364082	2.416944	3,036	42	0.0138340	1.0327047	0.066979
65-69 years	2.397310	2.438600	2,379	42	0.0176545	1.0423233	0.084688
70-74 years	2.361017	2.452586	1,691	48	0.0283856	1.0670189	0.133014
75-79 years	2.401990	2.488055	1,367	70	0.0512070	1.1229987	0.227992
80-84 years	2.401102	2.518202	772	57	0.0738342	1.1772834	0.313579
85+ years			464	60	0.1293103		1.000000
Separation factor	0.145013						
End value constant	0.8324391						
Capital F factor	1						

LIFE TABLE FOR THE AMERICAN INDIAN AND ALASKA NATIVE FEMALES,
IN THE IHS SERVICE AREA (ALASKA AREA), 1989-1991

Page 2 of 3

lx	nDx	Lx	Tx	Ex
100,000	1,299	98,889	7,398,283	74.0
98,701	218	394,293	7,299,394	74.0
98,483	263	491,688	6,905,101	70.1
98,220	81	490,930	6,413,413	65.3
98,139	886	488,727	5,922,483	60.3
97,253	700	484,614	5,433,756	55.9
96,553	798	480,828	4,949,142	51.3
95,755	1,546	475,043	4,468,314	46.7
94,209	1,521	467,449	3,993,271	42.4
92,688	1,470	459,987	3,525,822	38.0
91,218	2,960	449,139	3,065,835	33.6
88,258	2,727	434,815	2,616,696	29.6
85,531	3,600	419,024	2,181,881	25.5
81,931	5,488	396,391	1,762,857	21.5
76,443	6,474	366,428	1,366,466	17.9
69,969	9,307	327,019	1,000,038	14.3
60,662	13,830	268,900	673,019	11.1
46,832	14,686	197,178	404,119	8.6
32,146	32,146	206,941	206,941	6.4

LIFE TABLE FOR THE AMERICAN INDIAN AND ALASKA NATIVE FEMALES,
IN THE IHS SERVICE AREA (ALASKA AREA), 1989-1991

Page 3 of 3

Total number of
Deaths for 1989-91

618 *

Number of deaths
with age not
stated, 1989-1991

0 *

Infant deaths
(under 1 year)

1989

15 *

20 _1

1990

15 *

20 _1

1991

13 *

17 _1

Births

1988

1,374 *

1989

1,486 *

1990

1,521 *

1991

1,533 *

Adjustment factor
for underreporting
of infant deaths

1.335 *

_1 Number of infant deaths adjusted for underreporting based
on the 1983-86 Linked Birth/Infant Death files from NCHS

LIFE TABLE FOR THE AMERICAN INDIAN AND ALASKA NATIVE BOTH SEXES
IN THE IHS SERVICE AREA (ALBUQUERQUE AREA), 1989-1991

Page 1 of 3

AGE	nAx	nBx	nPx*	nDx*	nMx	1+nAx*nMx	nQx
Under 1 year			5,385	45	0.0083651		0.011496
1-4 years	60.814558	2.346041	18,525	17	0.0009186	1.0558643	0.003480
5-9 years	-18.968837	2.765957	22,021	10	0.0004546	0.9913768	0.002293
10-14 years	29.177090	2.093923	19,893	8	0.0004026	1.0117467	0.001990
15-19 years	4.768137	2.221519	19,185	32	0.0016697	1.0079614	0.008283
20-24 years	0.324220	2.358561	18,735	47	0.0025112	1.0008142	0.012546
25-29 years	1.351335	2.427870	18,900	50	0.0026482	1.0035786	0.013194
30-34 years	0.808700	2.413793	17,216	55	0.0031980	1.0025862	0.015949
35-39 years	0.637331	2.364308	14,053	49	0.0034904	1.0022245	0.017413
40-44 years	1.637978	2.348727	11,470	42	0.0036655	1.0060040	0.018218
45-49 years	2.260965	2.348222	8,231	46	0.0055943	1.0126485	0.027622
50-54 years	2.386114	2.374296	6,755	40	0.0059276	1.0141439	0.029225
55-59 years	2.279349	2.397544	5,607	58	0.0103548	1.0236022	0.050580
60-64 years	2.364082	2.416944	4,393	57	0.0129884	1.0307056	0.063007
65-69 years	2.397310	2.438600	3,400	66	0.0194316	1.0465836	0.092833
70-74 years	2.361017	2.452586	2,784	72	0.0258885	1.0611232	0.121986
75-79 years	2.401990	2.488055	2,100	80	0.0381342	1.0915980	0.174671
80-84 years	2.401102	2.518202	1,389	78	0.0562129	1.1349729	0.247640
85+ years			1,045	126	0.1206974		1.000000
Separation factor	0.145013						
End value constant	0.8324391						
Capital F factor	1.001022						

LIFE TABLE FOR THE AMERICAN INDIAN AND ALASKA NATIVE BOTH SEXES
IN THE IHS SERVICE AREA (ALBUQUERQUE AREA), 1989-1991

Page 2 of 3

lx	nDx	Lx	Tx	Ex
100,000	1,150	99,017	7,426,491	74.3
98,850	344	394,593	7,327,474	74.1
98,506	226	491,905	6,932,881	70.4
98,280	196	490,990	6,440,976	65.5
98,084	812	488,616	5,949,986	60.7
97,272	1,220	483,483	5,461,370	56.1
96,052	1,267	477,184	4,977,887	51.8
94,785	1,512	470,275	4,500,703	47.5
93,273	1,624	462,525	4,030,428	43.2
91,649	1,670	454,323	3,567,903	38.9
89,979	2,485	444,060	3,113,580	34.6
87,494	2,557	431,399	2,669,520	30.5
84,937	4,296	414,385	2,238,121	26.4
80,641	5,081	390,925	1,823,736	22.6
75,560	7,014	360,696	1,432,811	19.0
68,546	8,362	322,221	1,072,115	15.6
60,184	10,512	274,766	749,894	12.5
49,672	12,301	217,384	475,128	9.6
37,371	37,371	257,744	257,744	6.9

LIFE TABLE FOR THE AMERICAN INDIAN AND ALASKA NATIVE BOTH SEXES
IN THE IHS SERVICE AREA (ALBUQUERQUE AREA), 1989-1991

Page 3 of 3

Total number of Deaths for 1989-91	979 *		
Number of deaths with age not stated, 1989-1991	1 *		
Infant deaths (under 1 year)			
1989	19 *	25	_1
1990	8 *	11	_1
1991	18 *	24	_1
Births			
1988	1,543 *		
1989	1,903 *		
1990	1,855 *		
1991	1,901 *		
Adjustment factor for underreporting of infant deaths	1.335 *		

_1 Number of infant deaths adjusted for underreporting based
on the 1983-86 Linked Birth/Infant Death files from NCHS

LIFE TABLE FOR THE AMERICAN INDIAN AND ALASKA NATIVE MALES
IN THE IHS SERVICE AREA (ALBUQUERQUE AREA), 1989-1991

Page 1 of 3

AGE	nAx	nBx	nPx*	nDx*	nMx	1+nAx*nMx	nQx
Under 1 year			2,636	25	0.0095002		0.012826
1-4 years	60.814558	2.346041	9,449	8	0.0008481	1.0515768	0.003226
5-9 years	-18.968837	2.765957	11,048	9	0.0008160	0.9845214	0.004144
10-14 years	29.177090	2.093923	10,200	4	0.0003928	1.0114608	0.001942
15-19 years	4.768137	2.221519	9,622	26	0.0027067	1.0129059	0.013361
20-24 years	0.324220	2.358561	9,248	39	0.0042243	1.0013696	0.021093
25-29 years	1.351335	2.427870	9,117	45	0.0049442	1.0066813	0.024557
30-34 years	0.808700	2.413793	8,094	45	0.0055691	1.0045037	0.027721
35-39 years	0.637331	2.364308	6,717	35	0.0052195	1.0033265	0.026011
40-44 years	1.637978	2.348727	5,472	30	0.0054918	1.0089954	0.027214
45-49 years	2.260965	2.348222	3,825	31	0.0081184	1.0183554	0.039860
50-54 years	2.386114	2.374296	3,003	25	0.0083392	1.0198983	0.040883
55-59 years	2.279349	2.397544	2,514	26	0.0103597	1.0236134	0.050604
60-64 years	2.364082	2.416944	1,926	30	0.0156029	1.0368865	0.075239
65-69 years	2.397310	2.438600	1,508	35	0.0232491	1.0557353	0.110109
70-74 years	2.361017	2.452596	1,255	38	0.0303305	1.0716108	0.141518
75-79 years	2.401990	2.488055	903	43	0.0477002	1.1145754	0.213984
80-84 years	2.401102	2.518202	582	39	0.0671245	1.1611728	0.289038
85+ years			434	54	0.1246360		1.000000
Separation factor	0.145013						
End value constant	0.8324391						
Capital F factor	1.001704						

LIFE TABLE FOR THE AMERICAN INDIAN AND ALASKA NATIVE MALES
IN THE IHS SERVICE AREA (ALBUQUERQUE AREA), 1989-1991

Page 2 of 3

lx	nDx	Lx	Tx	Ex
100,000	1,283	98,903	7,001,249	70.0
98,717	318	394,122	6,902,346	69.9
98,399	408	490,866	6,508,224	66.1
97,991	190	489,557	6,017,358	61.4
97,801	1,307	486,101	5,527,801	56.5
96,494	2,035	477,670	5,041,700	52.2
94,459	2,320	466,662	4,564,030	48.3
92,139	2,554	454,530	4,097,368	44.5
89,585	2,330	442,416	3,642,838	40.7
87,255	2,375	430,697	3,200,422	36.7
84,880	3,383	416,456	2,769,725	32.6
81,497	3,332	399,574	2,353,269	28.9
78,165	3,955	381,343	1,953,695	25.0
74,210	5,584	357,554	1,572,352	21.2
68,626	7,556	324,704	1,214,798	17.7
61,070	8,643	284,152	890,094	14.6
52,427	11,219	234,222	605,942	11.6
41,208	11,911	176,046	371,720	9.0
29,297	29,297	195,674	195,674	6.7

LIFE TABLE FOR THE AMERICAN INDIAN AND ALASKA NATIVE MALES
IN THE IHS SERVICE AREA (ALBUQUERQUE AREA), 1989-1991

Page 3 of 3

Total number of
Deaths for 1989-91

588 *

Number of deaths
with age not
stated, 1989-1991

1 *

Infant deaths
(under 1 year)

1989

15 *

20 _1

1990

1 *

1 _1

1991

9 *

12 _1

Births

1988

800 *

1989

944 *

1990

934 *

1991

907 *

Adjustment factor
for underreporting
of infant deaths

1.335 *

_1 Number of infant deaths adjusted for underreporting based
on the 1983-86 Linked Birth/Infant Death files from NCHS

LIFE TABLE FOR THE AMERICAN INDIAN AND ALASKA NATIVE FEMALES
IN THE IHS SERVICE AREA (ALBUQUERQUE AREA), 1989-1991

Page 1 of 3

AGE	nAx	nBx	nPx*	nDx*	nMx	1+nAx*nMx	nQx
Under 1 year			2,749	20	0.0072754		0.009614
1-4 years	60.814558	2.346041	9,076	9	0.0009916	1.0603037	0.003741
5-9 years	-18.968837	2.765957	10,973	1	0.0000911	0.9982719	0.000456
10-14 years	29.177090	2.093923	9,693	4	0.0004127	1.0120414	0.002039
15-19 years	4.768137	2.221519	9,563	6	0.0006274	1.0029915	0.003128
20-24 years	0.324220	2.358561	9,487	8	0.0008433	1.0002734	0.004215
25-29 years	1.351335	2.427870	9,783	5	0.0005111	1.0006907	0.002554
30-34 years	0.808700	2.413793	9,122	10	0.0010963	1.0008866	0.005477
35-39 years	0.637331	2.364308	7,336	14	0.0019084	1.0012163	0.009530
40-44 years	1.637978	2.348727	5,998	12	0.0020007	1.0032771	0.009971
45-49 years	2.260965	2.348222	4,406	15	0.0034044	1.0076972	0.016892
50-54 years	2.386114	2.374296	3,752	15	0.0039979	1.0095394	0.019801
55-59 years	2.279349	2.397544	3,093	32	0.0103459	1.0235819	0.050538
60-64 years	2.364082	2.416944	2,467	27	0.0109445	1.0258737	0.053342
65-69 years	2.397310	2.438600	1,892	31	0.0163848	1.0392794	0.078828
70-74 years	2.361017	2.452586	1,529	34	0.0222368	1.0525015	0.105638
75-79 years	2.401990	2.488055	1,197	37	0.0309106	1.0742470	0.143871
80-84 years	2.401102	2.518202	807	39	0.0483271	1.1160383	0.216512
85+ years			611	72	0.1178396		1.000000
Separation factor	0.145013						
End value constant	0.8324391						
Capital F factor	1						

LIFE TABLE FOR THE AMERICAN INDIAN AND ALASKA NATIVE FEMALES
IN THE IHS SERVICE AREA (ALBUQUERQUE AREA), 1989-1991

Page 2 of 3

lx	nDx	Lx	Tx	Ex
100,000	961	99,178	7,849,958	78.5
99,039	370	395,288	7,750,780	78.3
98,669	45	493,221	7,355,492	74.5
98,624	201	492,699	6,862,271	69.6
98,423	308	491,431	6,369,572	64.7
98,115	414	489,599	5,878,141	59.9
97,701	250	487,898	5,388,542	55.2
97,451	534	485,966	4,900,644	50.3
96,917	924	482,400	4,414,678	45.6
95,993	957	477,717	3,932,278	41.0
95,036	1,605	471,411	3,454,561	36.4
93,431	1,850	462,763	2,983,150	31.9
91,581	4,628	446,809	2,520,387	27.5
86,953	4,638	423,555	2,073,578	23.8
82,315	6,489	395,751	1,650,023	20.0
75,826	8,010	359,485	1,254,272	16.5
67,816	9,757	314,804	894,787	13.2
58,059	12,570	258,641	579,983	10.0
45,489	45,489	321,342	321,342	7.1

LIFE TABLE FOR THE AMERICAN INDIAN AND ALASKA NATIVE FEMALES
IN THE IHS SERVICE AREA (ALBUQUERQUE AREA), 1989-1991

Page 3 of 3

Total number of
Deaths for 1989-91

391 *

Number of deaths
with age not
stated, 1989-1991

0 *

Infant deaths
(under 1 year)

1989

4 *

5 _1

1990

7 *

9 _1

1991

9 *

12 _1

Births

1988

743 *

1989

959 *

1990

921 *

1991

994 *

Adjustment factor
for underreporting
of infant deaths

1.335 *

_1 Number of infant deaths adjusted for underreporting based
on the 1983-86 Linked Birth/Infant Death files from NCHS

LIFE TABLE FOR THE AMERICAN INDIAN AND ALASKA NATIVE BOTH SEXES
IN THE IHS SERVICE AREA (BEMIDJI AREA), 1989-1991

Page 1 of 3

AGE	nAx	nBx	nPx*	nDx*	nMx	1+nAx*nMx	nQx
Under 1 year			4,838	51	0.0105415		0.013064
1-4 years	60.814558	2.346041	18,249	14	0.0007672	1.0466569	0.002932
5-9 years	-18.968837	2.765957	22,159	5	0.0002256	0.9957206	0.001133
10-14 years	29.177090	2.093923	19,828	8	0.0004035	1.0117730	0.001994
15-19 years	4.768137	2.221519	17,456	28	0.0016040	1.0076481	0.007959
20-24 years	0.324220	2.358561	14,996	37	0.0024673	1.0007999	0.012327
25-29 years	1.351335	2.427870	15,472	31	0.0020036	1.0027075	0.009991
30-34 years	0.808700	2.413793	14,757	39	0.0026428	1.0021372	0.013186
35-39 years	0.637331	2.364308	12,689	41	0.0032311	1.0020593	0.016122
40-44 years	1.637978	2.348727	10,104	41	0.0040578	1.0066466	0.020155
45-49 years	2.260965	2.348222	7,371	46	0.0062407	1.0141100	0.030769
50-54 years	2.386114	2.374296	6,233	81	0.0129953	1.0310083	0.063022
55-59 years	2.279349	2.397544	5,269	87	0.0165117	1.0376359	0.079564
60-64 years	2.364082	2.416944	4,404	117	0.0265668	1.0628061	0.124984
65-69 years	2.397310	2.438600	3,681	108	0.0293399	1.0703368	0.137059
70-74 years	2.361017	2.452586	2,599	139	0.0534821	1.1262721	0.237430
75-79 years	2.401990	2.488055	1,891	121	0.0639873	1.1536969	0.277314
80-84 years	2.401102	2.518202	1,092	101	0.0924908	1.2220798	0.378416
85+ years			697	103	0.1477762		1.000000
Separation factor	0.145013						
End value constant	0.8324391						
Capital F factor	1						

LIFE TABLE FOR THE AMERICAN INDIAN AND ALASKA NATIVE BOTH SEXES
IN THE IHS SERVICE AREA (BEMIDJI AREA), 1989-1991

Page 2 of 3

lx	nDx	Lx	Tx	Ex
100,000	1,306	98,883	6,932,124	69.3
98,694	289	394,098	6,833,241	69.2
98,405	111	491,718	6,439,143	65.4
98,294	196	491,060	5,947,425	60.5
98,098	781	488,755	5,456,365	55.6
97,317	1,200	483,755	4,967,610	51.0
96,117	960	478,254	4,483,855	46.6
95,157	1,255	472,756	4,005,601	42.1
93,902	1,514	465,930	3,532,845	37.6
92,388	1,862	457,567	3,066,915	33.2
90,526	2,785	446,090	2,609,348	28.8
87,741	5,530	425,575	2,163,258	24.7
82,211	6,541	395,373	1,737,683	21.1
75,670	9,458	355,491	1,342,310	17.7
66,212	9,075	308,930	986,819	14.9
57,137	13,566	252,413	677,889	11.9
43,571	12,083	187,792	425,476	9.8
31,488	11,916	127,433	237,684	7.5
19,572	19,572	110,251	110,251	5.6

LIFE TABLE FOR THE AMERICAN INDIAN AND ALASKA NATIVE BOTH SEXES
IN THE IHS SERVICE AREA (BEMIDJI AREA), 1989-1991

Page 3 of 3

Total number of
Deaths for 1989-91

1,198 *

Number of deaths
with age not
stated, 1989-1991

0 *

Infant deaths
(under 1 year)

1989

23 *

31 _1

1990

12 *

16 _1

1991

16 *

21 _1

Births

1988

1,637 *

1989

1,808 *

1990

1,797 *

1991

1,828 *

Adjustment factor
for underreporting
of infant deaths

1.335 *

_1 Number of infant deaths adjusted for underreporting based
on the 1983-86 Linked Birth/Infant Death files from NCHS

LIFE TABLE FOR THE AMERICAN INDIAN AND ALASKA NATIVE MALES
IN THE IHS SERVICE AREA (BEMIDJI AREA), 1989-1991

Page 1 of 3

AGE	nAx	nBx	nPx*	nDx*	nMx	1+nAx*nMx	nQx
Under 1 year			2,448	30	0.0122549		0.015008
1-4 years	60.814558	2.346041	9,331	10	0.0010717	1.0651750	0.004025
5-9 years	-18.968837	2.765957	11,538	4	0.0003467	0.9934235	0.001745
10-14 years	29.177090	2.093923	10,387	4	0.0003851	1.0112361	0.001904
15-19 years	4.768137	2.221519	8,580	19	0.0022145	1.0105590	0.010957
20-24 years	0.324220	2.358561	7,410	33	0.0044534	1.0014439	0.022235
25-29 years	1.351335	2.427870	7,495	25	0.0033356	1.0045075	0.016603
30-34 years	0.808700	2.413793	7,148	29	0.0040571	1.0032810	0.020219
35-39 years	0.637331	2.364308	6,315	28	0.0044339	1.0028259	0.022107
40-44 years	1.637978	2.348727	4,993	25	0.0050070	1.0082014	0.024831
45-49 years	2.260965	2.348222	3,681	30	0.0081500	1.0184269	0.040013
50-54 years	2.386114	2.374296	3,064	42	0.0137076	1.0327079	0.066367
55-59 years	2.279349	2.397544	2,663	56	0.0210289	1.0479322	0.100335
60-64 years	2.364082	2.416944	2,076	72	0.0346821	1.0819913	0.160270
65-69 years	2.397310	2.438600	1,722	63	0.0365854	1.0877065	0.168177
70-74 years	2.361017	2.452586	1,081	71	0.0656799	1.1550714	0.284311
75-79 years	2.401990	2.488055	770	55	0.0714286	1.1715708	0.304841
80-84 years	2.401102	2.518202	489	42	0.0858896	1.2062297	0.356025
85+ years			287	48	0.1672474		1.000000
Separation factor	0.145013						
End value constant	0.8324391						
Capital F factor	1						