

2.

**PATTERNS IN MORTALITY FROM MOTOR VEHICLE-
RELATED INJURIES BY SINGLE-YEAR OF AGE,
GENDER AND RACE/ETHNICITY,
ARIZONA RESIDENTS,
1993-2007**

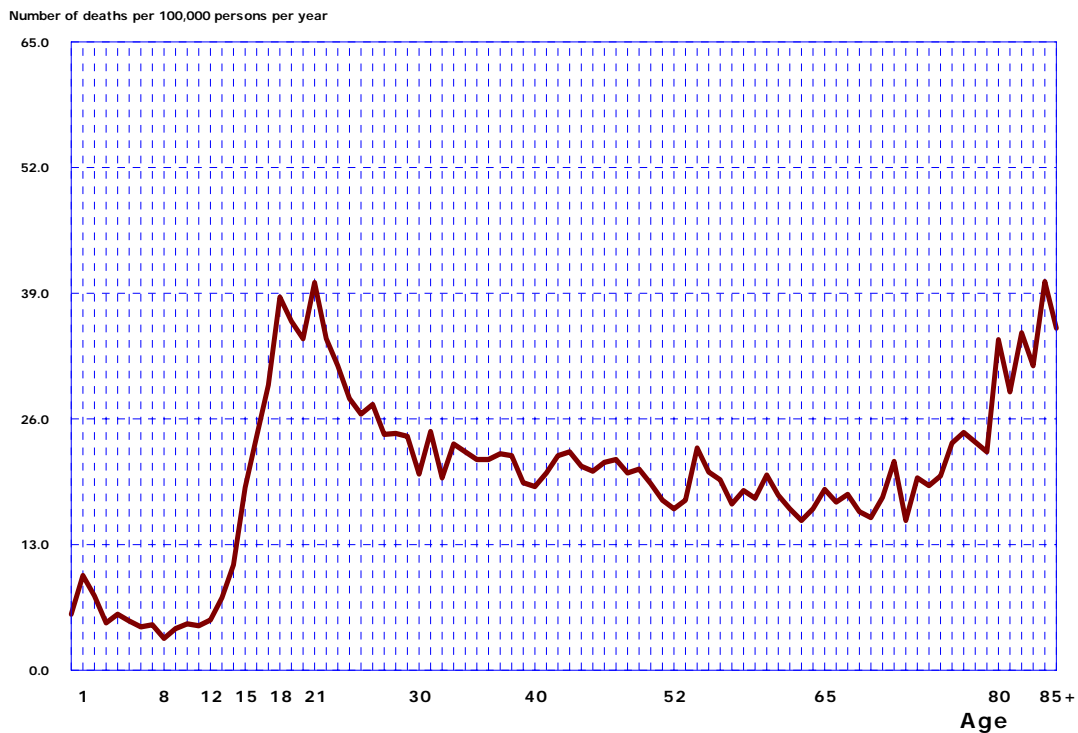
From 1993 to 2007, 15,005 Arizona residents died from injuries in motor vehicle accidents. We have selected the 15-year period to look in detail at mortality risks by single-year of age, gender, and race/ethnicity. There are obvious advantages in using cumulative data for a longer period of time:

- 1) The data accumulated over a 15-year period greatly improve the reliability of mortality rates, because they are based on a larger number of deaths (the numerators used to compute the rates). It is also important to note that neither the mortality risk nor the number of deaths from motor vehicle-related injuries are distributed uniformly by age. In fact, they are highly concentrated at certain ages. In 2007, adolescents (15-19 years) and young adults (20-44 years) disproportionately accounted for 57.3 of all motor vehicle-related fatalities, while comprising 42.0 percent of Arizona's population. What it means is that at certain other ages the 2007 mortality risk was zero (for example, unlike Arizonans aged 92 or 94 years in 2007, those who were 93 years old experienced no deaths in motor vehicle accidents).
- 2) By selecting this particular period of time, 1993-2007, we were able to use the 2000 Census enumerations of Arizona residents by single-year of age as the denominators to compute the rates;
- 3) The data accumulated over a 15-year period greatly reduce the distorting effects of an anomalous year and allow for establishing a reliable baseline.

Statisticians use the term modality, which refers to the number of humps or modes in a distribution. The 1993-2007 distribution of motor vehicle-related mortality rates by single-year of age (**Figure 2-1, Table 2-1**) contains a considerable number of humps.

Figure 2-1

Average Annual Mortality Rates* for Motor Vehicle-Related Injuries by Single-Year of Age among Arizona Residents: Fifteen-Year Summary for 1993-2007

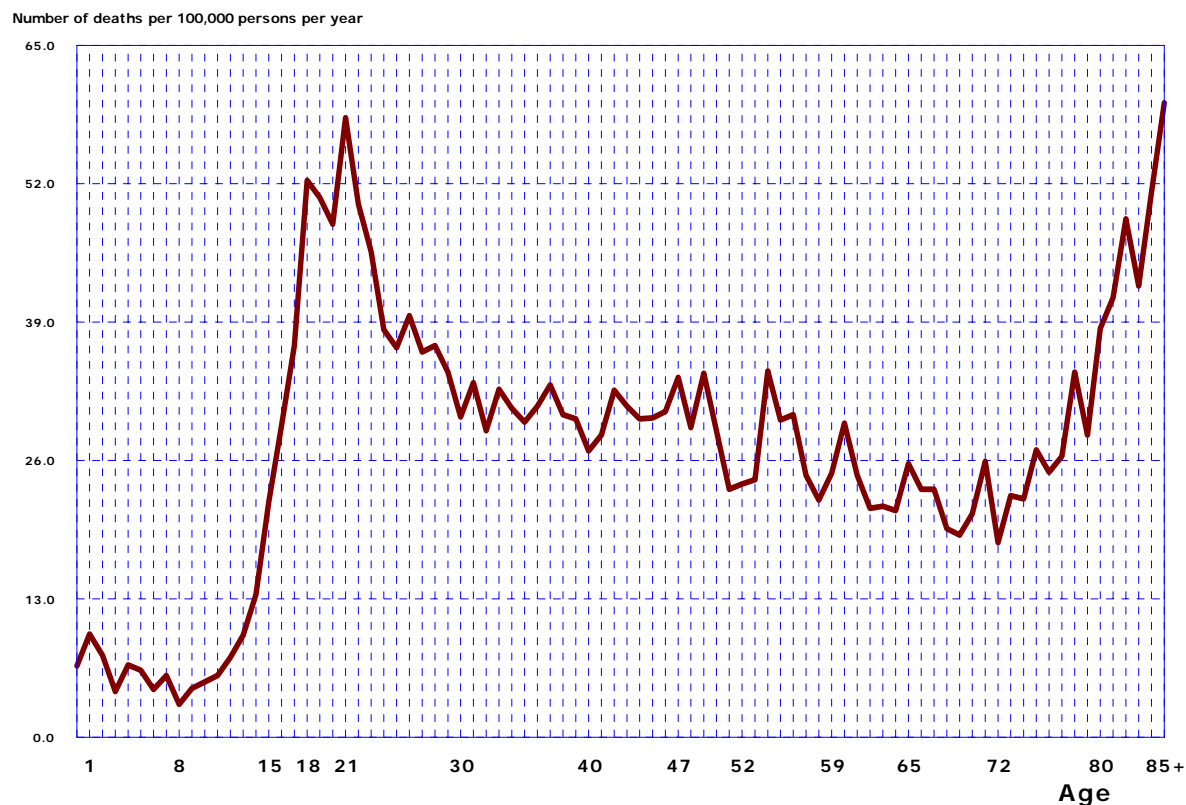


*Total number of motor vehicle-related deaths for 1993-2007 per 100,000 persons per year. The year 2000 population counts (i.e., population at mid-point) multiplied by fifteen were used as the denominator.

However, there are two values greater than others. This mortality curve is bimodal, reaching the first peak at age 21 (40.1 deaths per 100,000 persons), tapering off, and then rising to a second peak at age 84 (40.2 deaths per 100,000 persons). Interestingly, 21 year olds shared the mortality risk in motor vehicle accidents with persons exactly 4 times their age.

For Arizona males in 1993-2007, the two peaks in the distribution of mortality rates for motor vehicle-related injuries were at age 21 (58.2 deaths per 100,000 males) and at the open-ended age category of 85+ years (59.6 deaths per 100,000 males; **Figure 2-2**). Beginning at age 9, all age-specific mortality rates of males were considerably greater than the corresponding female rates. At age 49, the male to female mortality risk ratio was as high as 4.4:1 (**Table 2-1**).

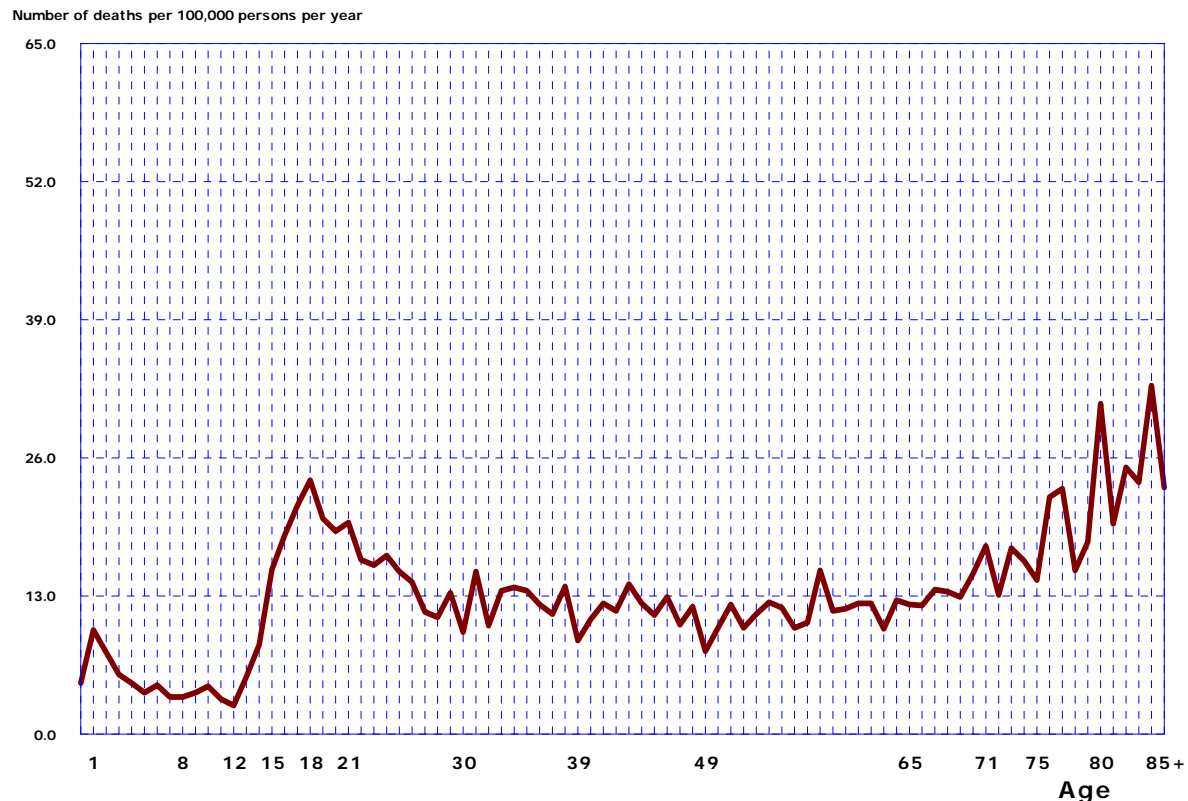
Figure 2-2
Average Annual Mortality Rates* for Motor Vehicle-Related Injuries by Single-Year of Age among Arizona Male Residents: Fifteen-Year Summary for 1993-2007



*Total number of motor vehicle-related deaths for 1993-2007 per 100,000 persons per year. . . .
 The year 2000 population counts (i.e., population at mid-point) multiplied by fifteen were used as the denominator.

For Arizona females in 1993-2007, the mortality curve reached the first peak at age 18 (23.9 deaths per 100,000 females), it then tapered off, and rose to a second peak at age 84 (32.8 deaths per 100,000 females; **Figure 2-3**, **Table 2-1**). At age 21, the male (58.2 deaths per 100,000 males) to female (19.9 deaths per 100,000 females) mortality risk ratio was 2.9:1 (**Table 2-1**).

Figure 2-3
Average Annual Mortality Rates* for Motor Vehicle-Related Injuries by Single-Year of Age among Arizona Female Residents: Fifteen-Year Summary for 1993-2007



*Total number of motor vehicle-related deaths for 1993-2007 per 100,000 persons per year. The year 2000 population counts (i.e., population at mid-point) multiplied by fifteen were used as the denominator.

The race/ethnicity-specific patterns in mortality from motor vehicle-related injuries in 1993-2007 are shown in **Figure 2-4** (American Indian residents of Arizona), **Figure 2-5** (Asians or Pacific Islanders), **Figure 2-6** (Blacks or African Americans), **Figure 2-7** (Hispanics or Latinos), and **Figure 2-8** (White non-Hispanics). The five visual representations are based on the data in **Table 2-2**.

While **Figure 2-1** is quite suggestive that no specific age confers immunity from injuries and/or deaths in motor vehicle accidents, the distributions for the two smaller race/ethnic groups, Asians and Blacks, are erratic and include a number of discontinuities. In the fifteen-year period from 1993 to 2007, there were no deaths in motor vehicle accidents at certain ages among Asians and Blacks. All mortality rates by single-year of age among American Indians (with the exception of the oldest 85+) exceeded the corresponding average rates for all groups (**Figure 2-4**). In contrast, the majority of age-specific rates among White non-Hispanics (**Figure 2-8**) were lower than the average rates for all groups.

Figure 2-4
Average Annual Mortality Rates* for Motor Vehicle-Related Injuries by Single-Year of Age among American Indians or Alaska Natives and all Arizona Residents:
Fifteen-Year Summary for 1993-2007

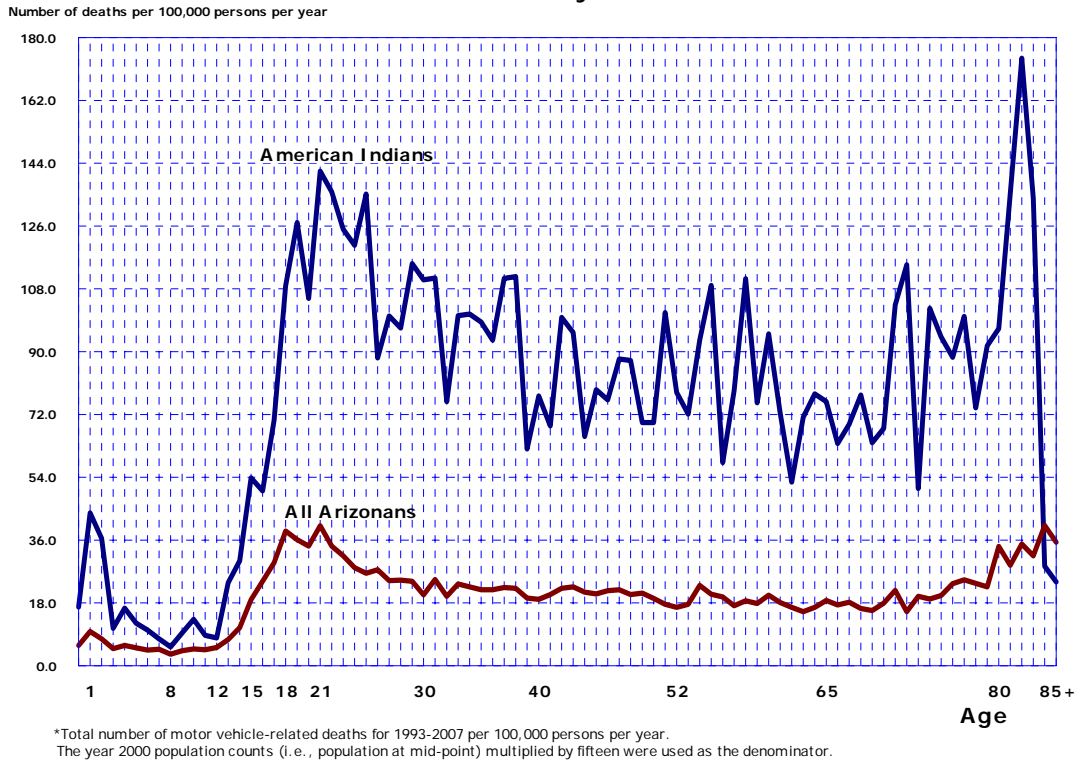


Figure 2-5
Average Annual Mortality Rates* for Motor Vehicle-Related Injuries by Single-Year of Age among Asians or Pacific Islanders and all Arizona Residents:
Fifteen-Year Summary for 1993-2007

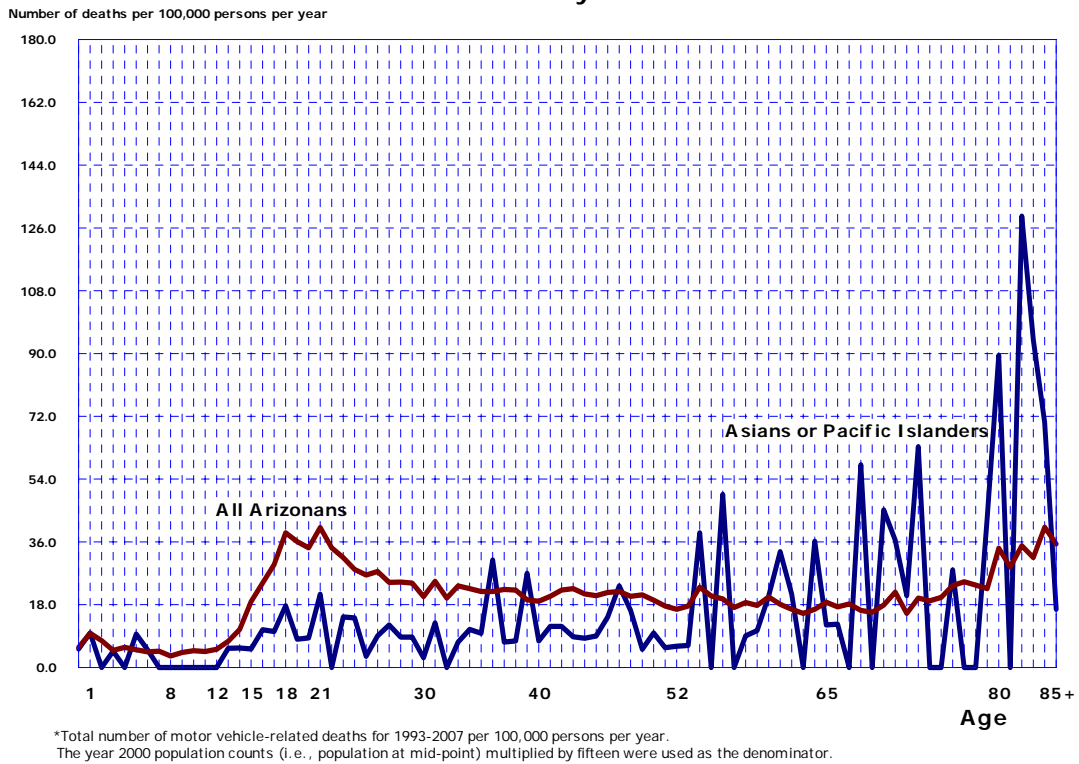


Figure 2-6
Average Annual Mortality Rates* for Motor Vehicle-Related Injuries by Single-Year
of Age among Blacks or African Americans and all Arizona Residents:
Fifteen-Year Summary for 1993-2007

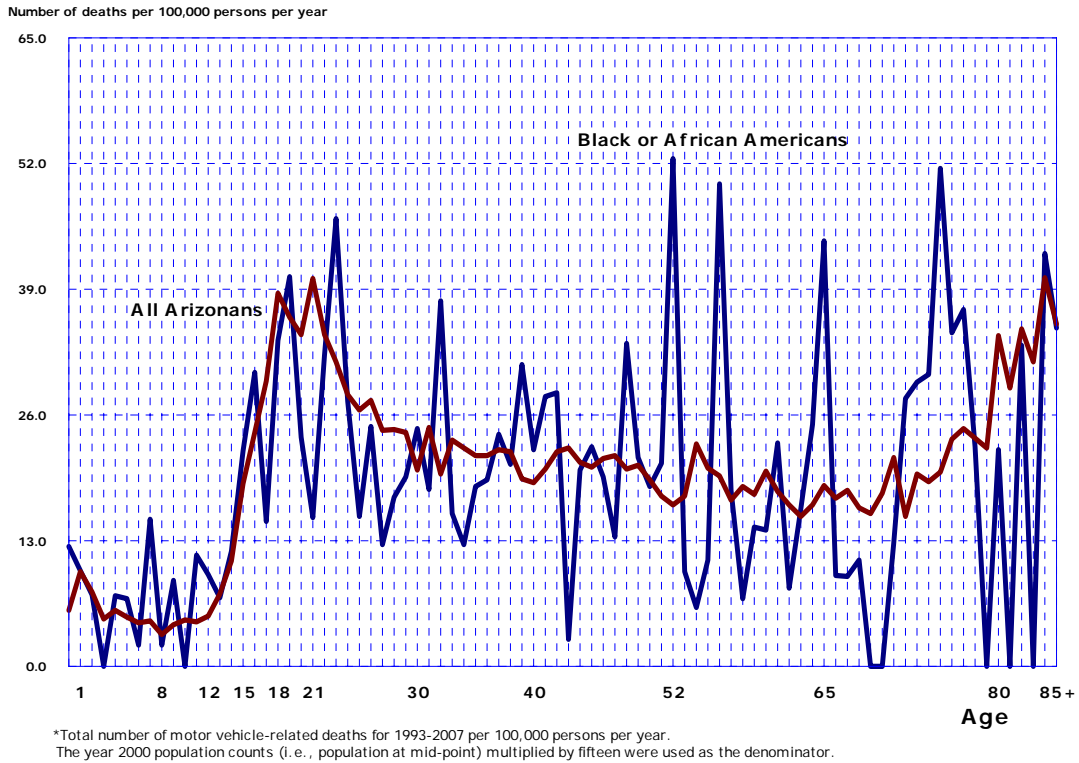


Figure 2-7
Average Annual Mortality Rates* for Motor Vehicle-Related Injuries by Single-Year
of Age among Hispanics or Latinos and all Arizona Residents:
Fifteen-Year Summary for 1993-2007

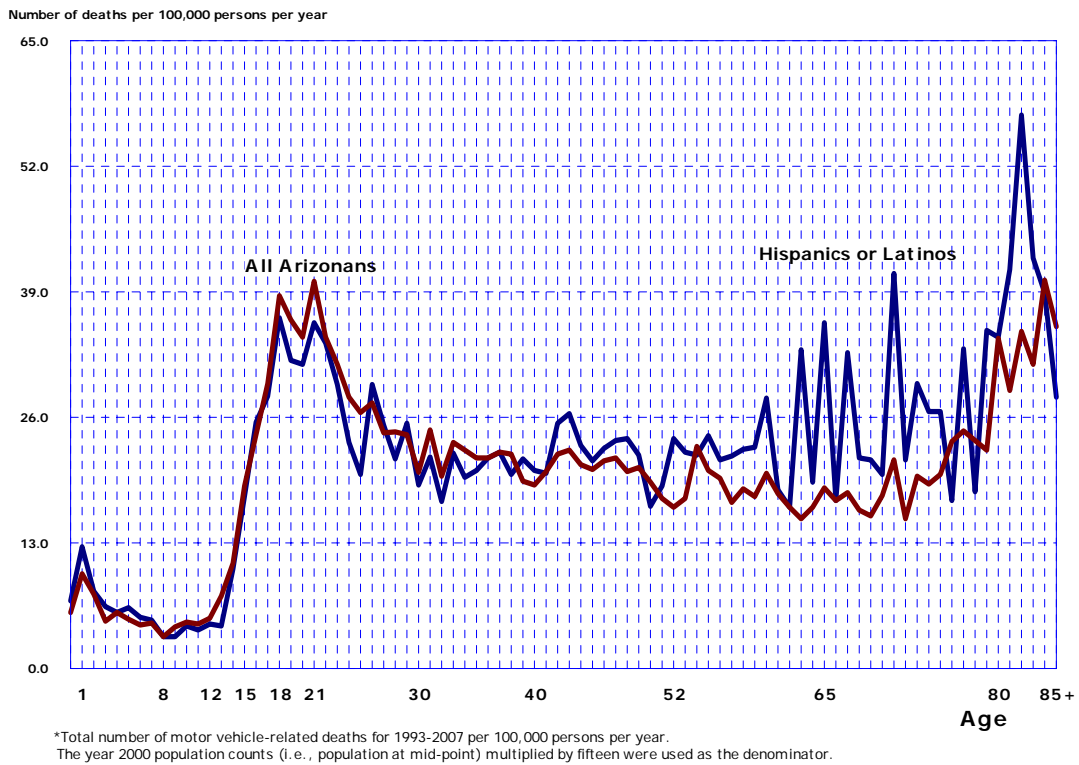
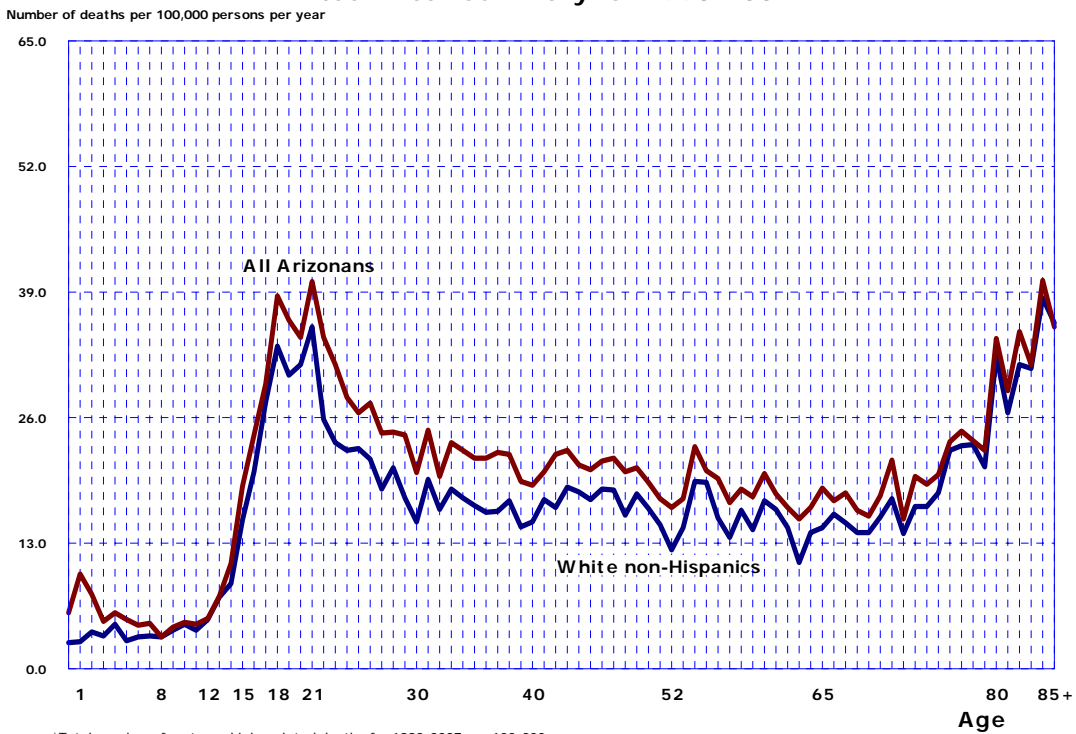
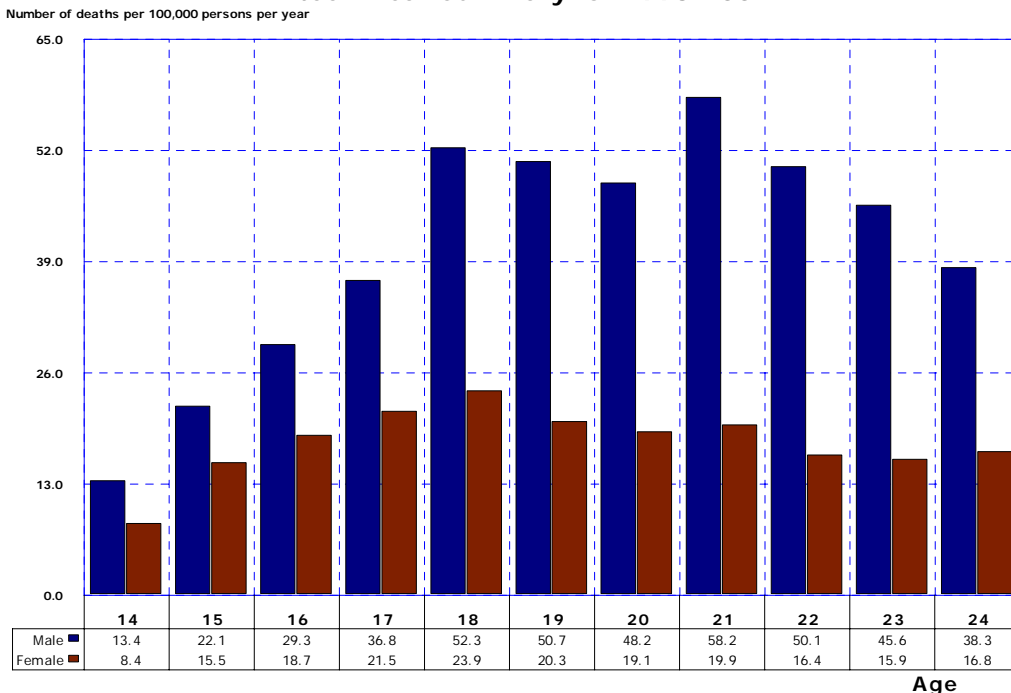


Figure 2-8
Average Annual Mortality Rates* for Motor Vehicle-Related Injuries by Single-Year
of Age among White non-Hispanics and all Arizona Residents:
Fifteen-Year Summary for 1993-2007



While no specific age confers immunity from injuries and/or deaths in motor vehicle accidents, reaching the legal age to become a licensed driver of a motor vehicle, dramatically increases the mortality risk for both males and females (Figure 2-9).

Figure 2-9
Average Annual Mortality Rates* for Motor Vehicle-Related Injuries by Single-Year
of Age and Gender among Arizona Residents Ages 14-24 Years:
Fifteen-Year Summary for 1993-2007

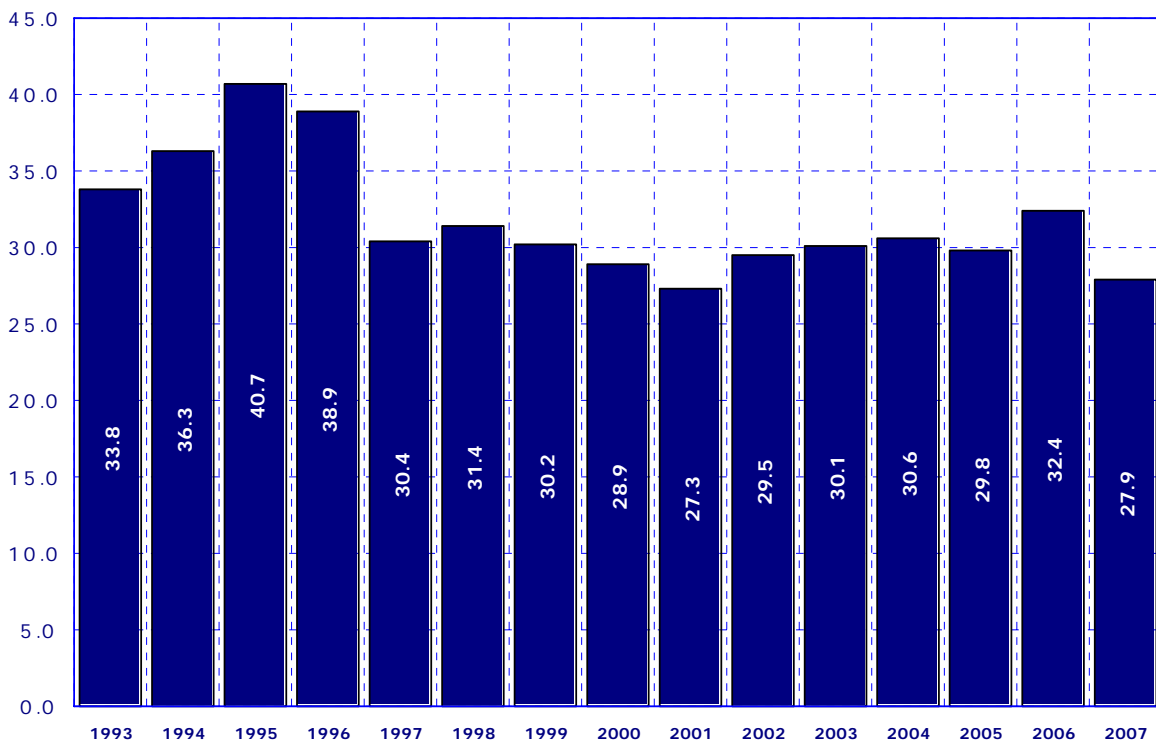


In 1993-2007, compared to a male mortality rate of 13.4/100,000 at age 14, the mortality rate at age 18 was 3.9 times greater (52.3/100,000), and 4.3 times greater at age 21 (58.2/100,000). The magnitude of the increase in the mortality was not quite as steep among females. Compared to a female mortality rate in motor vehicle accidents of 8.4/100,000 at 14, the mortality rate was 2.2 times as high at age 16 (18.7/100,000), and 2.8 times greater at age 18 (23.9/100,000).

The use of cumulative data for 1993-2007 has its limitations, too. It produces a “snapshot” of a period in time and it gives no sense of direction: it cannot be used to evaluate the changes in mortality risks from 1993 to 2007. However, the reader of Section 2 shall find here two types of data tables: Table 2-1 and Table-2-2 present the numerators, the denominators, and the mortality rates computed for the entire period from 1993 to 2007; while Table 2-3 and Table 2-4 show the age group-specific mortality rates by year (the urban/rural comparisons in Table 2-4 only are available for 2000-2007).

Adolescents and young adults 15-24 year olds were the age group with the second highest death rate from motor vehicle accidents in every year observed, whereas, in 1993-2007, Arizona 85 years and older had the highest mortality rate among the age groups; **Table 2-3**). The mortality rate for motor vehicle-related injuries among adolescents and young adults 15-24 years old declined by 31.4 percent from a recent peak of 40.7/100,000 in 1995 to 27.9/100,000 in 2007. The latter was the second lowest mortality rate in the fifteen-year period from 1993 to 2007 (the lowest rate of 27.3/100,000 was in 2001).

Figure 2-10
Mortality Rates* for Motor Vehicle-Related Injuries by Year among Adolescents and Young Adults 15-24 Years, Arizona Residents, 1993-2007



* Number of deaths in motor vehicle accidents per 100,000 adolescents and young adults 15-24 years old.

Table 2-1
Cumulative Number of Deaths in Motor Vehicle Accidents and Average Annual Mortality Rates*
by Single-Year of Age and Gender for 1993-2007

Age	Both genders			Male			Female		
	Year 2000 population	Number of deaths	Average annual mortality rate	Year 2000 population	Number of deaths	Average annual mortality rate	Year 2000 population	Number of deaths	Average annual mortality rate
Under 1 year	77,421	67	5.8	39,591	40	6.7	37,830	27	4.8
1 year	77,174	113	9.8	39,223	57	9.7	37,951	56	9.8
2 years	75,241	87	7.7	38,855	45	7.7	36,386	42	7.7
3 years	75,990	56	4.9	38,847	25	4.3	37,143	31	5.6
4 years	76,560	67	5.8	39,118	40	6.8	37,442	27	4.8
5 years	76,755	59	5.1	39,376	37	6.3	37,379	22	3.9
6 years	76,447	52	4.5	38,832	26	4.5	37,615	26	4.6
7 years	78,435	55	4.7	40,165	35	5.8	38,270	20	3.5
8 years	78,567	39	3.3	40,268	19	3.1	38,299	20	3.5
9 years	79,665	51	4.3	40,835	28	4.6	38,830	23	3.9
10 years	79,783	58	4.8	41,004	32	5.2	38,779	26	4.5
11 years	75,929	52	4.6	39,029	34	5.8	36,900	18	3.3
12 years	75,073	58	5.2	38,450	43	7.5	36,623	15	2.7
13 years	73,595	83	7.5	37,675	54	9.6	35,920	29	5.4
14 years	73,831	121	10.9	37,906	76	13.4	35,925	45	8.4
15 years	72,640	206	18.9	37,418	124	22.1	35,222	82	15.5
16 years	71,043	258	24.2	36,884	162	29.3	34,159	96	18.7
17 years	72,798	322	29.5	37,835	209	36.8	34,963	113	21.5
18 years	74,292	430	38.6	38,348	301	52.3	35,944	129	23.9
19 years	76,949	417	36.1	40,123	305	50.7	36,826	112	20.3
20 years	76,165	392	34.3	39,803	288	48.2	36,362	104	19.1
21 years	71,929	433	40.1	38,020	332	58.2	33,909	101	19.9
22 years	71,610	368	34.3	37,907	285	50.1	33,703	83	16.4
23 years	71,787	339	31.5	37,738	258	45.6	34,049	81	15.9
24 years	71,369	301	28.1	37,618	216	38.3	33,751	85	16.8
25 years	74,465	296	26.5	39,118	215	36.6	35,347	81	15.3
26 years	71,108	293	27.5	37,074	220	39.6	34,034	73	14.3
27 years	72,969	267	24.4	38,163	207	36.2	34,806	60	11.5
28 years	75,783	278	24.5	39,469	218	36.8	36,314	60	11.0
29 years	79,781	290	24.2	41,576	214	34.3	38,205	76	13.3
30 years	80,131	244	20.3	41,857	189	30.1	38,274	55	9.6
31 years	72,915	270	24.7	38,036	190	33.3	34,879	80	15.3
32 years	71,992	215	19.9	37,500	162	28.8	34,492	53	10.2
33 years	70,800	249	23.4	36,707	180	32.7	34,093	69	13.5
34 years	72,721	247	22.6	37,566	174	30.9	35,155	73	13.8
35 years	79,378	259	21.8	40,753	181	29.6	38,625	78	13.5
36 years	78,071	255	21.8	39,671	185	31.1	38,400	70	12.2
37 years	77,746	261	22.4	39,505	196	33.1	38,241	65	11.3
38 years	79,287	264	22.2	40,312	183	30.3	38,975	81	13.9
39 years	78,205	228	19.4	39,423	177	29.9	38,782	51	8.8
40 years	80,811	230	19.0	41,164	166	26.9	39,647	64	10.8
41 years	74,815	229	20.4	37,560	160	28.4	37,255	69	12.3
42 years	76,426	254	22.2	38,419	188	32.6	38,007	66	11.6
43 years	72,935	247	22.6	36,399	170	31.1	36,536	77	14.1
44 years	71,130	225	21.1	35,451	159	29.9	35,679	66	12.3
45 years	71,781	222	20.6	35,967	162	30.0	35,814	60	11.2
46 years	67,797	219	21.5	33,154	152	30.6	34,643	67	12.9
47 years	65,966	216	21.8	32,391	164	33.8	33,575	52	10.3
48 years	64,072	196	20.4	31,380	137	29.1	32,692	59	12.0
49 years	62,287	194	20.8	30,586	157	34.2	31,701	37	7.8
50 years	64,023	185	19.3	31,470	136	28.8	32,553	49	10.0

Table 2-1
Cumulative Number of Deaths in Motor Vehicle Accidents and Average Annual Mortality Rates*
by Single-Year of Age and Gender for 1993-2007

Age	Both genders			Male			Female		
	Year 2000 population	Number of deaths	Average annual mortality rate	Year 2000 population	Number of deaths	Average annual mortality rate	Year 2000 population	Number of deaths	Average annual mortality rate
51 years	60,565	160	17.6	29,488	103	23.3	31,077	57	12.2
52 years	62,629	157	16.7	30,575	109	23.8	32,054	48	10.0
53 years	60,717	160	17.6	29,507	107	24.2	31,210	53	11.3
54 years	48,067	166	23.0	23,271	120	34.4	24,796	46	12.4
55 years	50,024	154	20.5	24,171	108	29.8	25,853	46	11.9
56 years	49,798	147	19.7	23,781	108	30.3	26,017	39	10.0
57 years	50,426	130	17.2	23,872	88	24.6	26,554	42	10.5
58 years	45,806	128	18.6	21,528	72	22.3	24,278	56	15.4
59 years	42,621	114	17.8	20,135	75	24.8	22,486	39	11.6
60 years	42,862	130	20.2	20,338	90	29.5	22,524	40	11.8
61 years	41,154	112	18.1	19,535	72	24.6	21,619	40	12.3
62 years	40,645	102	16.7	19,535	63	21.5	21,110	39	12.3
63 years	39,538	92	15.5	18,702	61	21.7	20,836	31	9.9
64 years	39,498	99	16.7	18,813	60	21.3	20,685	39	12.6
65 years	39,982	112	18.7	19,198	74	25.7	20,784	38	12.2
66 years	36,728	96	17.4	17,444	61	23.3	19,284	35	12.1
67 years	37,630	103	18.2	18,036	63	23.3	19,594	40	13.6
68 years	37,089	91	16.4	17,716	52	19.6	19,373	39	13.4
69 years	37,578	89	15.8	17,876	51	19.0	19,702	38	12.9
70 years	37,955	102	17.9	18,107	57	21.0	19,848	45	15.1
71 years	34,940	113	21.6	16,490	64	25.9	18,450	49	17.7
72 years	35,172	82	15.5	16,349	45	18.3	18,823	37	13.1
73 years	33,565	100	19.9	15,302	52	22.7	18,263	48	17.5
74 years	33,202	95	19.1	15,171	51	22.4	18,031	44	16.3
75 years	32,554	98	20.1	14,577	59	27.0	17,977	39	14.5
76 years	30,384	107	23.5	13,379	50	24.9	17,005	57	22.3
77 years	28,229	104	24.6	12,380	49	26.4	15,849	55	23.1
78 years	27,655	98	23.6	12,033	62	34.3	15,622	36	15.4
79 years	25,379	86	22.6	11,049	47	28.4	14,330	39	18.1
80 years	22,387	115	34.2	9,734	56	38.4	12,653	59	31.1
81 years	20,173	87	28.8	8,403	52	41.3	11,770	35	19.8
82 years	18,551	97	34.9	7,667	56	48.7	10,884	41	25.1
83 years	15,892	75	31.5	6,597	42	42.4	9,295	33	23.7
84 years	14,269	86	40.2	5,731	44	51.2	8,538	42	32.8
85+ year	68,525	364	35.4	23,028	206	59.6	45,497	158	23.2

*Cumulative number of motor vehicle-related deaths in 1993-2007 per 100,000 persons per year. The year 2000 population counts (i.e., population at mid-point multiplied by fifteen) were used as the denominator.

Table 2-2
Cumulative Number of Deaths in Motor Vehicle Accidents and Average Annual Mortality Rates*
by Single-Year of Age and Race/Ethnicity for 1993-2007

Age	American Indian or Alaska Native		Asian or Pacific Islander		Black or African American		Hispanic or Latino		White non-Hispanic	
	Number of deaths	Average annual mortality rate	Number of deaths	Average annual mortality rate	Number of deaths	Average annual mortality rate	Number of deaths	Average annual mortality rate	Number of deaths	Average annual mortality rate
Under 1 year	5	12.4	1.0	5.3	5	12.4	34	7.0	14	2.7
1 year	4	9.9	2.0	9.9	4	9.9	59	12.6	15	2.8
2 years	3	7.4	0.0	0.0	3	7.4	36	8.0	20	3.8
3 years	0	0.0	1.0	4.7	0	0.0	29	6.4	18	3.4
4 years	3	7.3	0.0	0.0	3	7.3	26	5.8	25	4.6
5 years	3	7.0	2.0	9.6	3	7.0	28	6.3	16	2.9
6 years	1	2.2	1.0	5.1	1	2.2	23	5.3	18	3.3
7 years	7	15.2	0.0	0.0	7	15.2	22	5.0	19	3.4
8 years	1	2.2	0.0	0.0	1	2.2	14	3.3	19	3.3
9 years	4	8.9	0.0	0.0	4	8.9	14	3.3	24	4.0
10 years	0	0.0	0.0	0.0	0	0.0	18	4.4	28	4.6
11 years	5	11.5	0.0	0.0	5	11.5	15	4.0	24	4.0
12 years	4	9.5	0.0	0.0	4	9.5	17	4.6	30	5.1
13 years	3	7.1	1.0	5.5	3	7.1	16	4.4	43	7.4
14 years	5	11.9	1.0	5.6	5	11.9	37	10.3	52	8.8
15 years	9	22.3	1.0	5.3	9	22.3	62	17.8	90	15.4
16 years	12	30.4	2.0	10.8	12	30.4	88	25.5	116	20.4
17 years	6	15.0	2.0	10.3	6	15.0	103	28.2	159	27.6
18 years	13	33.7	4.0	17.7	13	33.7	136	36.3	198	33.4
19 years	17	40.3	2.0	8.1	17	40.3	125	31.9	186	30.4
20 years	10	23.7	2.0	8.5	10	23.7	124	31.5	190	31.5
21 years	6	15.4	5.0	21.0	6	15.4	135	35.8	201	35.4
22 years	12	32.2	0.0	0.0	12	32.2	129	33.7	144	25.8
23 years	17	46.3	4.0	14.5	17	46.3	112	29.4	131	23.4
24 years	10	27.4	4.0	14.2	10	27.4	91	23.4	124	22.6
25 years	6	15.5	1.0	3.2	6	15.5	80	20.1	133	22.8
26 years	9	24.8	3.0	9.1	9	24.8	109	29.4	122	21.7
27 years	5	12.6	4.0	12.2	5	12.6	92	25.2	110	18.6
28 years	7	17.5	3.0	8.7	7	17.5	79	21.7	132	20.8
29 years	8	19.6	3.0	8.7	8	19.6	92	25.4	123	17.7
30 years	11	24.6	1.0	2.8	11	24.6	67	19.0	107	15.2
31 years	7	18.3	4.0	12.8	7	18.3	70	21.9	126	19.6
32 years	14	37.8	0.0	0.0	14	37.8	56	17.3	104	16.5
33 years	6	15.8	2.0	7.3	6	15.8	69	22.3	116	18.6
34 years	5	12.6	3.0	10.9	5	12.6	61	19.8	115	17.7
35 years	8	18.6	3.0	9.8	8	18.6	65	20.5	124	16.9
36 years	8	19.3	9.0	30.8	8	19.3	65	21.8	119	16.2
37 years	10	24.0	2.0	7.3	10	24.0	64	22.4	122	16.3
38 years	9	20.9	2.0	7.6	9	20.9	56	20.1	135	17.4
39 years	13	31.2	7.0	27.0	13	31.2	58	21.7	114	14.7
40 years	10	22.4	2.0	7.6	10	22.4	55	20.5	123	15.2
41 years	11	27.9	3.0	11.8	11	27.9	48	20.2	133	17.5
42 years	11	28.3	3.0	11.8	11	28.3	60	25.4	132	16.7
43 years	1	2.8	2.0	8.8	1	2.8	58	26.4	143	18.8
44 years	7	20.3	2.0	8.4	7	20.3	48	23.1	137	18.3
45 years	8	22.7	2.0	9.0	8	22.7	44	21.5	133	17.5
46 years	6	19.6	3.0	14.5	6	19.6	43	22.8	135	18.6
47 years	4	13.4	5.0	23.4	4	13.4	42	23.6	132	18.5
48 years	9	33.4	3.0	16.4	9	33.4	40	23.8	112	15.9
49 years	6	21.6	1.0	5.2	6	21.6	36	22.1	123	18.1
50 years	5	18.6	2.0	9.9	5	18.6	27	16.8	117	16.6

Table 2-2
Cumulative Number of Deaths in Motor Vehicle Accidents and Average Annual Mortality Rates*
by Single-Year of Age and Race/Ethnicity for 1993-2007

Age	American Indian or Alaska Native		Asian or Pacific Islander		Black or African American		Hispanic or Latino		White non-Hispanic	
	Number of deaths	Average annual mortality rate	Number of deaths	Average annual mortality rate	Number of deaths	Average annual mortality rate	Number of deaths	Average annual mortality rate	Number of deaths	Average annual mortality rate
51 years	5	21.0	1.0	5.7	5	21.0	27	18.9	102	14.9
52 years	12	52.5	1.0	6.1	12	52.5	33	23.8	89	12.3
53 years	2	9.8	1.0	6.3	2	9.8	28	22.4	104	14.6
54 years	1	6.1	5.0	38.6	1	6.1	25	22.1	106	19.4
55 years	2	11.0	0.0	0.0	2	11.0	26	24.1	112	19.3
56 years	8	49.9	6.0	49.6	8	49.9	22	21.6	92	15.6
57 years	3	18.2	0.0	0.0	3	18.2	21	22.0	82	13.6
58 years	1	7.0	1.0	9.1	1	7.0	20	22.7	90	16.4
59 years	2	14.4	1.0	10.6	2	14.4	19	22.9	73	14.4
60 years	2	14.1	2.0	20.5	2	14.1	23	28.0	89	17.4
61 years	3	23.1	3.0	33.2	3	23.1	14	18.5	82	16.5
62 years	1	8.1	2.0	21.0	1	8.1	12	16.7	72	14.6
63 years	2	16.3	0.0	0.0	2	16.3	23	33.0	53	11.0
64 years	3	25.0	3.0	36.2	3	25.0	13	19.3	68	14.1
65 years	5	44.0	1.0	12.2	5	44.0	24	35.8	72	14.6
66 years	1	9.4	1.0	12.4	1	9.4	10	17.4	73	16.0
67 years	1	9.3	0.0	0.0	1	9.3	19	32.7	71	15.1
68 years	1	11.0	4.0	58.1	1	11.0	12	21.8	66	14.1
69 years	0	0.0	0.0	0.0	0	0.0	12	21.6	67	14.1
70 years	0	0.0	3.0	45.2	0	0.0	11	20.1	76	15.7
71 years	1	12.8	2.0	36.5	1	12.8	19	40.9	79	17.6
72 years	2	27.7	1.0	20.6	2	27.7	10	21.6	64	14.0
73 years	2	29.4	3.0	63.3	2	29.4	13	29.5	73	16.8
74 years	2	30.2	0.0	0.0	2	30.2	11	26.6	73	16.8
75 years	3	51.5	0.0	0.0	3	51.5	10	26.6	78	18.2
76 years	2	34.5	1.0	28.0	2	34.5	6	17.4	91	22.6
77 years	2	36.9	0.0	0.0	2	36.9	10	33.1	87	23.1
78 years	1	22.7	0.0	0.0	1	22.7	5	18.3	86	23.2
79 years	0	0.0	1.0	43.0	0	0.0	9	35.0	71	20.9
80 years	1	22.4	2.0	89.5	1	22.4	8	34.3	97	32.4
81 years	0	0.0	0.0	0.0	0	0.0	8	41.3	72	26.5
82 years	1	33.2	2.0	129.4	1	33.2	10	57.3	79	31.5
83 years	0	0.0	1.0	93.9	0	0.0	6	42.5	67	31.1
84 years	1	42.7	1.0	70.2	1	42.7	5	38.9	74	38.4
85+ year	6	35.0	1.0	16.7	6	35.0	18	28.1	328	35.8

*Cumulative number of motor vehicle-related deaths in 1993-2007 per 100,000 persons per year. The year 2000 population counts (i.e., population at mid-point multiplied by fifteen were used as the denominator.

Table 2-3
Age-Specific Mortality Rates for Motor Vehicle-Related Injuries by Race/Ethnicity
Age Group and Year, Arizona Residents, 1993-2007

		1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
All groups	<1	7.4	5.9	8.4	9.7	4.1	6.6	9.0	7.7	7.5	4.8	4.7	2.3	1.1	2.1	4.9
	1-4	11.4	7.5	10.5	9.6	9.6	9.7	7.4	6.9	6.0	5.2	3.3	3.2	4.5	7.0	4.5
	5-14	6.2	6.0	8.1	8.2	7.9	5.0	5.0	5.3	5.0	4.6	6.2	5.2	4.5	3.0	3.9
	15-24	33.8	36.3	40.7	38.9	30.4	31.4	30.2	28.9	27.3	29.5	30.1	30.6	29.8	32.4	27.9
	25-34	26.3	26.8	26.4	27.8	25.4	24.5	20.3	19.3	22.1	19.2	18.1	19.2	22.8	24.3	19.2
	35-44	19.9	19.8	24.6	24.0	23.3	25.2	22.9	17.0	21.1	19.6	23.1	17.0	20.9	20.8	18.8
	45-54	17.6	20.2	21.1	20.2	18.6	19.8	22.0	18.6	14.9	22.4	20.2	19.9	22.3	25.1	17.0
	55-64	16.3	19.7	18.3	20.4	16.9	17.5	18.9	17.9	14.0	17.8	16.9	19.0	21.4	19.9	14.8
	65-74	16.3	17.2	20.5	19.0	18.7	20.9	19.0	17.0	14.6	18.8	13.5	18.5	17.8	13.9	14.3
	75-84	31.8	35.6	32.9	34.6	29.5	26.2	25.5	22.5	24.2	27.9	20.5	30.7	22.8	26.7	19.2
85+	42.0	43.3	48.2	40.3	46.8	34.9	42.3	39.4	32.4	32.8	31.9	37.4	19.9	26.1	24.9	
White non Hispanic	<1	2.7	2.7	5.3	2.6	2.7	0.0	10.9	5.8	0.0	0.0	0.0	0.0	0.0	0.0	4.6
	1-4	6.8	3.4	10.1	6.1	4.8	3.4	1.4	2.8	2.0	2.0	2.5	1.2	0.0	3.5	1.7
	5-14	5.5	6.0	7.4	5.9	7.5	4.4	3.6	4.4	3.2	2.2	5.8	4.7	2.6	3.0	3.5
	15-24	27.6	31.3	32.3	27.6	26.7	27.9	21.2	23.9	22.1	21.4	22.9	28.7	25.3	29.0	20.4
	25-34	17.3	21.6	23.1	20.3	19.8	17.6	14.3	15.0	14.7	14.9	12.3	15.1	17.4	20.4	15.9
	35-44	16.0	17.1	19.2	19.9	18.5	20.6	15.7	11.6	15.8	15.7	20.6	13.4	14.6	15.2	13.9
	45-54	14.1	16.2	18.6	15.1	14.0	17.0	16.8	15.5	13.5	17.8	16.9	16.4	18.7	20.9	16.1
	55-64	12.0	17.7	17.0	16.4	14.6	15.0	15.4	13.3	11.8	16.5	11.6	16.7	19.0	17.6	12.4
	65-74	13.8	14.0	18.7	17.4	15.9	18.9	18.1	12.7	12.9	16.1	11.8	14.2	14.0	12.7	11.1
	75-84	29.1	34.7	32.0	34.6	24.5	24.2	23.1	22.9	23.9	28.6	19.5	25.9	20.5	25.2	18.8
85+	42.5	48.6	49.8	37.3	50.5	33.7	40.4	36.0	30.0	33.7	29.7	37.3	22.2	29.4	26.3	
Hispanic or Latino	<1	19.3	9.3	17.0	8.1	3.8	14.4	10.0	3.1	9.0	8.7	8.5	0.0	2.6	2.4	4.4
	1-4	12.0	8.9	11.9	7.8	11.8	12.9	9.3	11.6	8.0	4.6	4.5	5.8	9.8	9.9	5.3
	5-14	6.3	3.0	7.3	8.4	7.0	5.5	4.6	5.2	4.3	4.5	5.4	6.2	6.3	3.3	5.1
	15-24	31.9	35.7	34.4	41.2	26.9	26.2	31.8	28.8	27.9	32.3	27.7	32.0	28.5	34.1	33.1
	25-34	31.6	24.2	27.3	25.2	19.7	26.7	23.5	18.1	28.0	19.0	22.0	17.4	23.8	22.9	17.9
	35-44	19.2	21.2	29.3	22.7	19.0	17.9	28.8	21.2	21.1	20.4	22.9	19.2	27.7	27.5	20.5
	45-54	18.8	25.0	18.6	23.5	21.7	17.9	26.1	18.0	11.9	29.3	22.4	28.4	20.1	33.7	15.8
	55-64	23.9	25.1	4.8	25.1	28.0	16.2	30.8	30.3	18.9	20.0	32.4	26.7	22.7	16.7	19.2
	65-74	22.7	18.0	20.5	16.3	34.9	33.7	24.1	17.1	19.3	42.8	15.6	37.9	36.5	23.3	23.5
	75-84	45.4	43.5	41.0	31.0	44.3	14.0	33.1	6.2	23.9	17.4	39.4	60.4	53.0	22.0	13.6
85+	32.6	0.0	29.2	55.6	0.0	25.5	98.7	23.4	22.6	21.9	63.9	41.7	0.0	0.0	12.2	
Black or African American	<1	0.0	35.9	0.0	0.0	32.6	29.4	0.0	37.3	0.0	0.0	0.0	0.0	0.0	24.0	0.0
	1-4	8.2	8.2	8.0	0.0	15.6	7.4	21.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4
	5-14	0.0	10.8	16.6	0.0	12.3	2.9	8.4	6.8	13.1	6.4	2.9	6.0	5.8	4.2	4.3
	15-24	26.4	16.4	30.7	33.3	21.3	24.2	26.9	19.1	18.5	21.5	22.9	30.2	45.4	23.3	19.2
	25-34	16.1	15.2	11.3	7.2	10.6	31.2	17.1	19.1	33.2	14.3	13.0	33.5	16.2	17.4	10.3
	35-44	10.2	14.0	51.7	4.0	26.5	40.1	17.7	3.7	32.3	17.4	19.0	19.5	25.1	13.5	19.0
	45-54	29.1	17.5	15.9	29.3	26.7	12.3	28.7	40.3	16.7	16.2	19.7	15.2	53.7	7.0	10.1
	55-64	14.1	13.2	24.9	0.0	22.2	32.3	0.0	31.5	0.0	0.0	9.0	0.0	26.8	44.0	22.9
	65-74	0.0	41.1	20.0	19.2	0.0	0.0	16.7	33.9	16.4	15.9	29.0	0.0	28.8	10.5	9.6
	75-84	42.7	0.0	78.9	0.0	147.0	35.2	0.0	0.0	34.0	0.0	0.0	0.0	0.0	24.9	13.4
85+	0.0	0.0	118.9	112.2	0.0	105.3	0.0	101.2	0.0	0.0	86.7	0.0	0.0	0.0	59.1	

Table 2-4
Age-Specific Mortality Rates for Motor Vehicle-Related Injuries by Urban/Rural Area*,
Gender, Age Group and Year, Arizona Residents, 2000-2007

			2000	2001	2002	2003	2004	2005	2006	2007
Arizona	Total	<1	7.7	7.5	4.8	4.7	2.3	1.1	2.1	4.9
		1-4	6.9	6.0	5.2	3.3	3.2	4.5	7.0	4.5
		5-14	5.3	5.0	4.6	6.2	5.2	4.5	3.0	3.9
		15-24	28.9	27.3	29.5	30.1	30.6	29.8	32.4	27.9
		25-34	19.3	22.1	19.2	18.1	19.2	22.8	24.3	19.2
		35-44	17.0	21.1	19.6	23.1	17.0	20.9	20.8	18.8
		45-54	18.6	14.9	22.4	20.2	19.9	22.3	25.1	17.0
		55-64	17.9	14.0	17.8	16.9	19.0	21.4	19.9	14.8
		65-74	18.4	14.6	18.8	13.5	18.5	17.8	13.9	14.3
		75-84	22.5	24.2	27.9	20.5	30.7	22.8	26.7	19.2
	85+	39.4	32.4	32.8	31.9	37.4	19.9	26.1	24.9	
	Male	<1	7.6	9.8	4.7	9.2	4.5	0.0	2.0	5.8
		1-4	7.0	6.2	6.6	2.9	4.0	3.9	6.1	3.9
		5-14	6.4	6.6	4.5	7.9	5.6	4.8	3.4	4.9
		15-24	38.3	37.2	41.0	41.6	39.9	40.4	42.4	39.4
		25-34	29.5	33.7	27.8	26.3	25.8	32.2	34.9	26.5
		35-44	25.0	32.1	26.8	34.2	22.1	29.6	29.6	24.6
		45-54	27.6	22.6	34.1	28.4	28.2	34.6	36.3	25.1
		55-64	25.7	15.6	22.3	23.0	27.5	32.5	26.0	20.5
		65-74	22.1	19.1	25.1	14.3	20.1	22.2	19.9	18.1
		75-84	31.5	33.3	34.2	17.9	35.6	35.0	29.8	26.8
	85+	52.1	42.0	57.0	63.4	73.0	51.4	47.8	34.5	
	Female	<1	7.9	5.1	5.0	0.0	0.0	2.3	2.1	4.0
		1-4	6.7	5.8	3.8	3.7	2.4	5.2	8.0	5.2
		5-14	4.3	3.4	4.8	4.4	4.7	4.3	2.5	2.9
		15-24	18.6	16.4	16.9	17.5	20.5	18.2	21.7	15.3
		25-34	8.2	9.5	9.7	9.2	12.1	12.6	12.6	11.3
		35-44	8.9	9.9	12.3	11.7	11.8	12.0	11.4	12.7
		45-54	10.0	7.6	11.1	12.2	12.0	10.6	14.0	9.0
		55-64	10.8	12.5	13.7	11.4	11.3	11.3	14.4	9.5
65-74		15.1	10.6	13.2	12.8	17.0	13.8	8.4	11.1	
75-84		15.7	17.3	23.1	22.5	27.0	13.4	24.2	13.1	
85+	33.0	27.6	20.6	16.0	19.4	3.8	14.4	19.2		
Urban	Total	<1	6.1	5.9	5.7	4.2	1.3	1.3	2.4	3.4
		1-4	7.0	5.3	3.3	2.5	1.7	4.3	5.8	3.0
		5-14	5.1	4.6	3.4	4.9	4.5	4.2	3.1	3.4
		15-24	24.7	24.0	28.2	23.9	26.4	26.0	30.1	24.0
		25-34	16.7	19.0	16.2	14.3	16.2	20.0	21.0	16.4
		35-44	13.9	17.7	16.9	20.9	15.0	17.3	18.0	15.1
		45-54	17.9	12.4	19.3	15.7	16.4	18.6	21.9	15.0
		55-64	15.8	12.7	16.1	13.3	17.8	18.8	16.8	12.0
		65-74	15.1	13.2	16.7	11.1	15.7	16.9	13.6	12.6
		75-84	19.8	23.2	23.5	19.5	23.5	21.7	24.6	19.0
	85+	33.3	27.1	32.8	33.5	37.2	20.9	29.2	20.4	
	Male	<1	8.9	8.6	5.6	8.1	2.6	0.0	2.4	4.5
		1-4	6.8	5.9	3.6	2.8	2.0	3.9	5.9	2.9
		5-14	6.2	6.0	4.3	6.2	4.9	4.5	3.6	3.8
		15-24	33.5	32.3	39.5	31.8	35.2	35.2	37.9	33.9
		25-34	25.8	28.9	22.4	21.3	21.8	28.5	29.7	21.7
		35-44	21.9	27.8	23.3	30.9	18.8	23.2	26.4	20.5
		45-54	26.2	18.0	28.2	23.1	23.7	28.6	31.3	21.8
		55-64	24.2	14.0	22.6	19.2	24.6	29.3	21.2	15.8
		65-74	17.3	18.9	22.5	13.0	19.1	20.3	20.7	16.1
75-84		27.0	32.0	24.1	17.8	30.2	34.1	28.3	27.3	
85+	42.4	41.0	54.6	62.7	74.7	57.9	51.8	30.7		

Table 2-4
Age-Specific Mortality Rates for Motor Vehicle-Related Injuries by Urban/Rural Area*,
Gender, Age Group and Year, Arizona Residents, 2000-2007

			2000	2001	2002	2003	2004	2005	2006	2007
	Female	<1	3.1	3.0	5.8	0.0	0.0	2.7	2.5	2.3
		1-4	7.2	4.6	3.0	2.2	1.4	4.8	5.6	3.0
		5-14	3.9	3.1	2.4	3.5	4.0	3.9	2.7	2.9
		15-24	15.1	14.9	15.7	15.3	16.8	15.9	21.8	13.2
		25-34	6.8	8.1	9.4	6.8	10.2	10.6	11.3	10.5
		35-44	5.6	7.3	10.3	10.5	11.0	11.1	8.9	9.5
		45-54	9.9	7.0	10.7	8.7	9.4	9.0	12.5	8.3
		55-64	8.2	11.6	10.2	7.9	11.5	9.2	12.8	8.4
		65-74	13.1	8.2	11.6	9.5	12.7	13.9	7.3	9.6
		75-84	14.6	16.7	23.0	20.7	18.5	12.4	21.9	12.5
85+	28.8	20.2	22.1	19.1	18.5	2.2	17.4	14.3		
Rural	Total	<1	16.9	16.5	0.0	7.9	7.7	0.0	0.0	13.9
		1-4	6.3	10.2	15.8	7.7	11.3	5.5	14.3	13.8
		5-14	6.5	7.1	10.3	12.1	8.5	6.4	2.1	7.0
		15-24	50.4	44.4	36.6	61.5	52.0	50.1	43.2	45.5
		25-34	36.2	43.5	39.1	44.0	39.6	41.4	46.6	37.9
		35-44	34.0	38.9	34.6	35.3	28.1	41.1	37.7	41.5
		45-54	21.1	26.6	36.6	39.9	36.1	39.7	40.4	26.5
		55-64	24.6	18.8	24.3	30.6	23.8	31.5	33.1	26.7
		65-74	30.7	18.7	26.6	22.4	28.6	21.1	14.7	20.6
		75-84	34.1	28.7	47.2	25.1	62.7	27.5	34.7	19.9
	85+	69.3	59.0	32.8	24.0	38.8	15.1	11.7	44.8	
	Male	<1	0.0	16.2	0.0	15.4	15.1	0.0	0.0	13.6
		1-4	8.2	8.0	23.3	3.8	14.9	3.6	7.1	10.2
		5-14	7.1	9.7	5.4	15.8	9.0	6.3	2.7	11.0
		15-24	63.0	63.3	49.0	92.8	65.2	68.3	63.9	64.6
		25-34	54.4	67.1	64.9	61.6	53.8	56.5	71.0	58.7
		35-44	42.2	54.5	46.4	53.1	40.4	66.5	49.7	51.5
		45-54	32.3	43.9	61.2	51.5	47.8	62.8	60.4	41.6
		55-64	29.0	21.7	21.1	37.0	37.6	44.6	46.3	40.4
		65-74	38.6	17.5	34.0	19.0	22.9	29.1	17.2	25.0
		75-84	49.9	38.8	75.3	18.4	57.6	38.8	35.5	24.8
	85+	95.8	46.6	68.0	66.3	64.4	20.9	31.2	49.6	
	Female	<1	34.5	16.9	0.0	0.0	0.0	0.0	0.0	14.2
		1-4	4.3	12.5	8.1	11.9	7.7	7.5	21.8	17.6
		5-14	5.9	4.4	15.5	8.3	8.0	6.5	1.4	2.9
		15-24	36.8	24.0	23.2	27.6	37.8	30.5	21.2	25.1
		25-34	17.0	18.7	12.0	25.5	24.6	25.6	21.2	16.4
		35-44	26.1	23.9	23.2	18.1	16.1	16.9	26.0	32.0
45-54		10.4	10.1	13.1	28.7	24.8	17.9	21.5	12.4	
55-64		20.6	16.0	27.2	24.7	11.0	19.5	21.1	14.0	
65-74		22.9	19.8	19.2	25.8	34.2	13.2	12.3	16.6	
75-84		20.8	20.3	23.6	30.7	67.0	18.1	34.0	15.6	
85+	54.3	66.1	12.8	0.0	24.3	11.8	0.0	41.6		

*Urban = Maricopa, Pima, Pinal, and Yuma counties. The remaining counties comprise Arizona's rural areas.