

ARIZONA



MOTOR VEHICLE CRASH FACTS 1998

1998 Motor Vehicle Crash Facts for Arizona

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This publication is a statistical review of the motor vehicle crashes in the State of Arizona for calendar year 1998. The results are compiled from Arizona Traffic Accident Reports submitted to the Arizona Department of Transportation by state, county, city, tribal, and other law enforcement agencies. Specific inquiries regarding the data in this report or requests for additional copies should be directed to:

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Motor Vehicle Crash Facts is an annual report published by the Traffic Engineering Group of the Arizona Department of Transportation. In order to provide the most current information, preliminary data is utilized when necessary. For this reason, previous or future reports may differ slightly and we encourage you to refer to the latest issue of Motor Vehicle Crash Facts.

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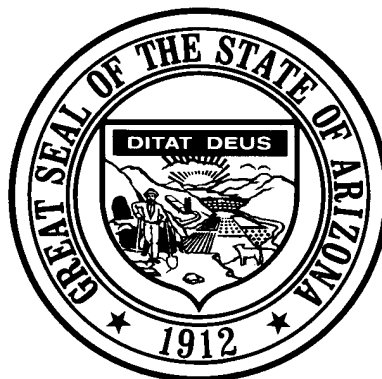
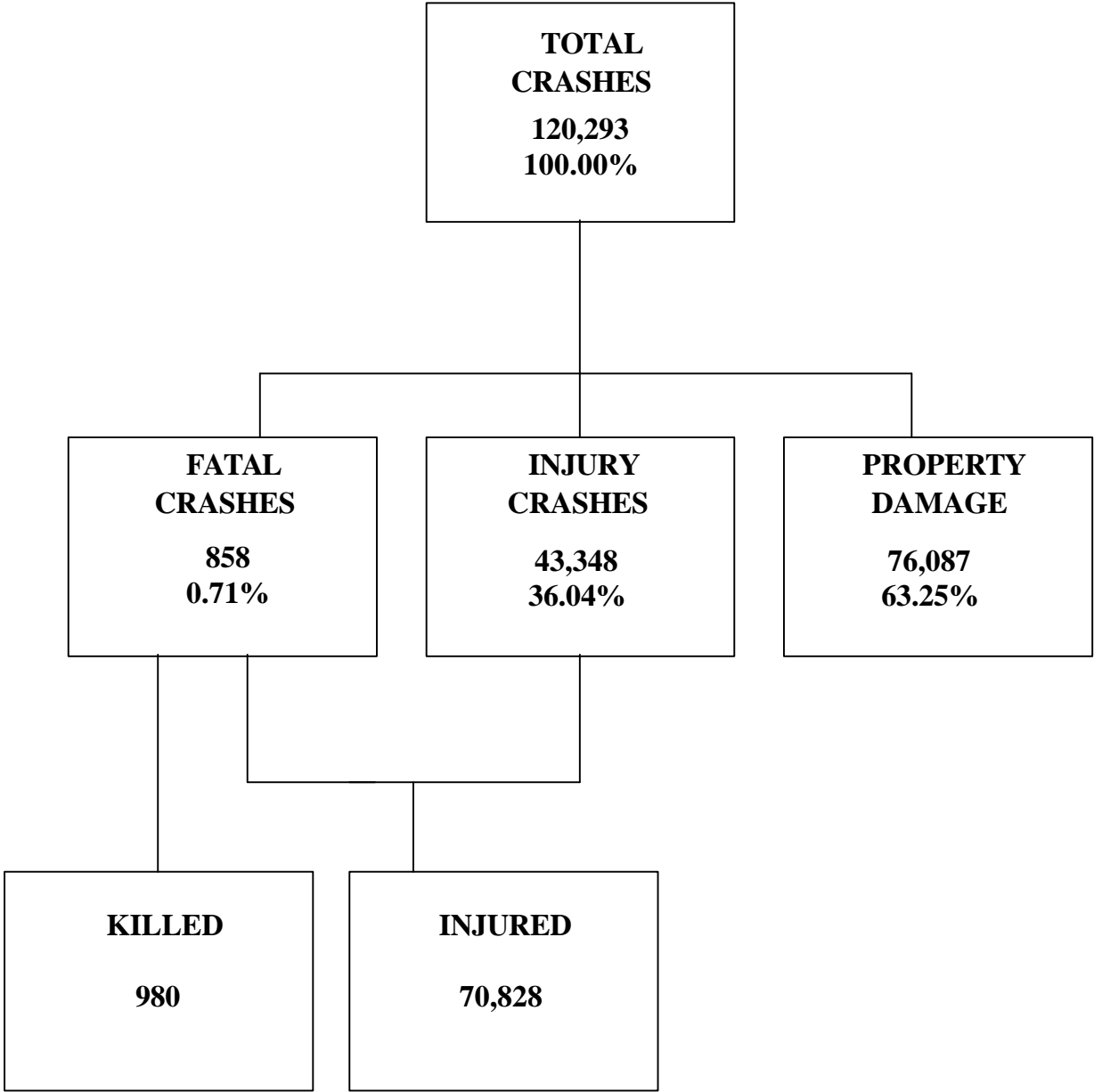


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Section 1: Highlights and Historical Trends



Section 1: Highlights and Historical Trends

**Table 1-1
Arizona Crash Facts**

Category	1997	1998	Pct Change
Reported crashes	114,174	120,293	+5.35%
Total killed	949	980	+3.26%
Total injured	68,297	70,828	+3.70%
Pedestrians killed	153	161	+5.22%
Pedestrians injured	1,624	1,594	-1.85%
Motorcyclists killed	60	63	+5.00%
Motorcyclists injured	1,636	1,438	-12.11%
Pedalcyclists killed	31	23	-25.81%
Pedalcyclists injured	2,067	1,954	-5.47%
Millions of vehicle miles traveled (VMT)	43,543	45,485	+4.54%
Deaths per 100 million VMT	2.18	2.15	-1.38%
Injuries per 100 million VMT	158.85	155.72	-1.98%

1998 At a Glance

- ⇒ Approximately **2.7** persons were killed each day.
- ⇒ One person was killed every **8.9** hours.
- ⇒ There were **194** persons injured every day.
- ⇒ One person was injured every **7.4** minutes.
- ⇒ Drinking drivers were involved in **6.42%** of all crashes.
- ⇒ Drinking drivers were involved in **23.37%** of all fatalities.
- ⇒ Over **80.8%** of all drinking drivers involved in crashes were males.
- ⇒ Rural crashes accounted for **19.6%** of all crashes, and over **59.1%** of all fatal crashes.
- ⇒ **73.6%** of all crashes occurred during daylight.
- ⇒ Motor vehicle crashes resulted in **\$2.26** billion in economic losses to Arizona.
- ⇒ Motor vehicle crashes killed **64** children and injured **6,791** children through age 14.

The Nation In 1998

An estimated **41,471** persons were killed in motor vehicle crashes in the United States.

An estimated **3,192,000** persons were injured.

There were an estimated **6,334,000** crashes.

The population of the United States was estimated at **270,298,524**.

Vehicle miles traveled totaled **2,618 billion** miles.

**Table 1-2
Arizona Licensed Drivers, Motor Vehicle Registration
and Crash History**

Calendar Year	Total Crashes	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Persons Killed	Total Persons Injured	Total Licensed Drivers	Total Registered Vehicles
1984	88,037	787	36,576	50,674	869	57,592	2,526,872	2,162,526
1985	92,921	782	37,841	54,298	893	59,650	2,106,559	2,283,832
1986	99,809	889	39,651	59,269	1,007	62,466	2,186,465	2,387,818
1987	99,172	811	40,115	58,246	939	63,278	2,296,741	2,438,960
1988	96,225	844	38,853	56,528	944	62,232	2,375,763	2,511,115
1989	92,144	770	37,850	53,524	879	61,597	2,416,057	2,546,530
1990	91,121	784	37,609	52,728	869	60,747	2,480,244	2,822,304
1991	85,728	727	34,277	50,724	816	55,625	2,517,836	2,842,475
1992	89,862	703	36,024	53,137	811	58,496	2,653,409	2,820,431
1993	97,903	704	38,434	58,765	801	63,037	2,855,184	2,910,175
1994	106,728	796	41,809	64,123	906	68,872	2,631,218	2,786,435
1995	113,888	919	43,721	69,248	1,037	71,994	2,776,877	2,945,574
1996	112,964	858	43,314	68,792	995	71,807	3,127,080	3,187,190
1997	114,174	843	41,802	71,529	949	68,297	3,187,150	3,393,170
1998	120,293	858	43,348	76,087	980	70,828	3,598,325	3,683,891

Section 1: Highlights and Historical Trends

**Table 1-3
Historical Trends
Arizona and the United States**

Calendar Year	U.S. Fatality Rate*	Arizona Fatality Rate*	Arizona Traffic Deaths	Estimated Motor Vehicle Miles Traveled*	AZ Fatal Crash Rate*
1950	7.59	11.04	325	2,944	9.54
1955	6.37	8.11	358	4,415	6.86
1960	5.31	7.85	513	6,536	9.15
1965	5.54	6.60	550	8,339	5.80
1970	4.91	6.29	762	12,122	5.27
1975	3.46	4.18	670	16,031	3.69
1976	3.25	4.36	737	16,895	3.75
1977	3.26	5.15	933	18,121	4.43
1978	3.26	5.33	1,027	19,277	4.71
1979	3.34	5.25	1,029	19,584	4.47
1980	3.35	5.03	947	18,816	4.43
1981	3.17	4.93	916	18,570	4.47
1982	2.76	3.67	724	19,729	3.22
1983	2.58	3.44	675	19,611	3.14
1984	2.57	4.22	869	20,613	3.82
1985	2.47	3.07	893	29,052	2.69
1986	2.51	3.23	1,007	31,143	2.85
1987	2.42	2.96	939	31,729	2.56
1988	2.32	2.76	944	34,153	2.47
1989	2.16	2.52	879	34,816	2.21
1990	2.44	2.45	869	35,455	2.21
1991	1.91	2.34	816	34,927	2.08
1992	1.80	2.31	811	35,048	2.00
1993	1.80	2.10	801	38,067	1.85
1994	1.73	2.34	906	38,776	2.05
1995	1.70	2.62	1,037	39,566	2.32
1996	1.70	2.37	995	42,007	2.04
1997	1.70	2.18	949	43,543	1.99
1998	1.58	2.15	980	45,485	1.89

*vehicle miles traveled are shown per million miles and rates per 100 million miles

Due to refinements in the method used for the calculation of vehicle miles traveled and the use of preliminary data in some cases, the Arizona crash and fatality rates may differ slightly from previous reports. The most current data is always used at the time of publication, but it may change as new information is received.

During 1998, an average of 114 persons died each day in motor vehicle crashes across the United States - one every 13 minutes.

Statewide Economic Loss Due to Motor Vehicle Crashes

In 1998, the economic impact of motor vehicle crashes accounted for \$475.41 for every man, woman, and child in the state of Arizona.

Fatalities	\$ 840,840,000.
Injuries	967,493,100.
Property Damage Only	456,522,000.
TOTAL.	\$2,264,855,100.

**Table 1-4
Estimated Economic Loss by County**

Counties	Cost of Traffic Crashes			Total
	Fatalities	Injuries	PDOs	
Apache	\$35,280,000	\$4,668,000	\$1,824,000	\$41,772,000
Cochise	22,540,000	14,400,600	8,088,000	45,028,600
Coconino	51,940,000	28,194,100	20,130,000	100,264,100
Gila	17,640,000	11,027,200	4,476,000	33,143,200
Graham	9,800,000	4,921,400	1,434,000	16,155,400
Greenlee	980,000	803,900	276,000	2,059,900
La Paz	22,540,000	5,006,500	1,566,000	29,112,500
Maricopa	364,560,000	606,594,100	295,758,000	1,266,912,100
Mohave	47,040,000	23,888,500	11,160,000	82,088,500
Navajo	25,480,000	9,137,300	4,404,000	39,021,300
Pima	98,000,000	170,564,400	71,196,000	339,760,400
Pinal	67,620,000	28,559,100	11,634,000	107,813,100
Santa Cruz	2,940,000	2,916,400	2,742,000	8,598,400
Yavapai	52,920,000	25,878,700	13,728,000	92,526,700
Yuma	21,560,000	30,932,900	8,106,000	60,598,900
TOTALS	\$840,840,000	\$967,493,100	\$456,522,000	\$2,264,855,100

Cost estimates are based on the 1998 National Safety Council estimates of the average cost of motor vehicle crashes, deaths and injuries. These costs are an estimate of wage and productivity losses, medical expenses, administrative expenses, motor vehicle damage, and employer costs. Effective in 1993, new components were added and new benchmarks and inflation factors adopted. For this reason, the cost estimates for 1998 are not comparable to those published in the past. The following factors were used to approximate the value of the loss for crashes occurring in Arizona.

- | | | |
|----|---------------------------|------------|
| 1. | Fatality | \$980,000. |
| 2. | Incapacitating Injury | 44,000. |
| 3. | Non-incapacitating Injury | 14,800. |
| 4. | Possible Injury | 8,400. |
| 5. | Property Damage Only | 6,400. |

Across our nation, the economic cost of motor vehicle crashes was estimated to be \$150.5 billion (NHTSA 1994 est).

Traffic Crashes in Arizona by Year

Figure 1-1: All Crashes

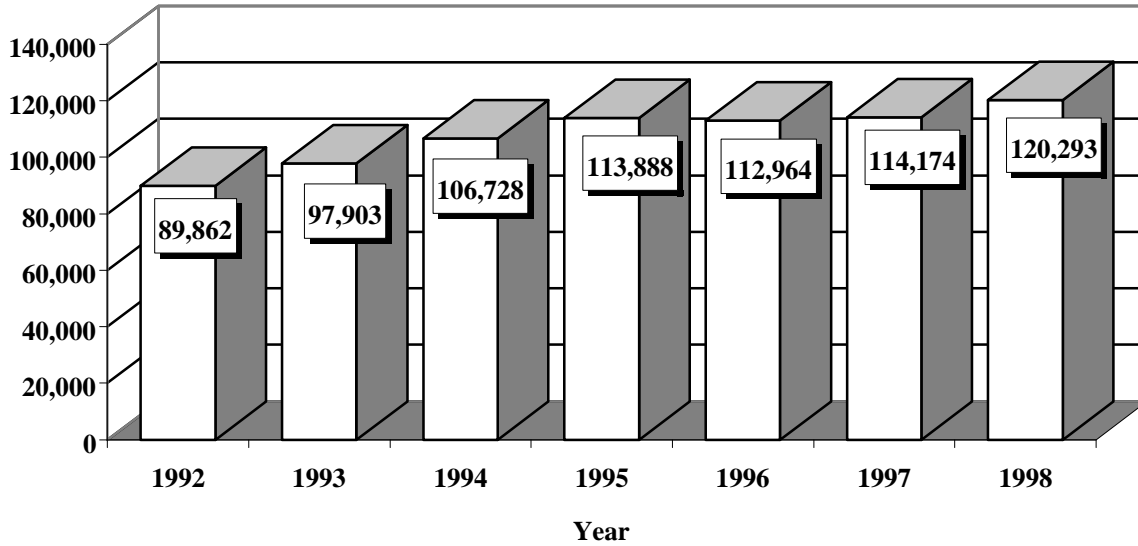


Figure 1-2: Fatal Crashes

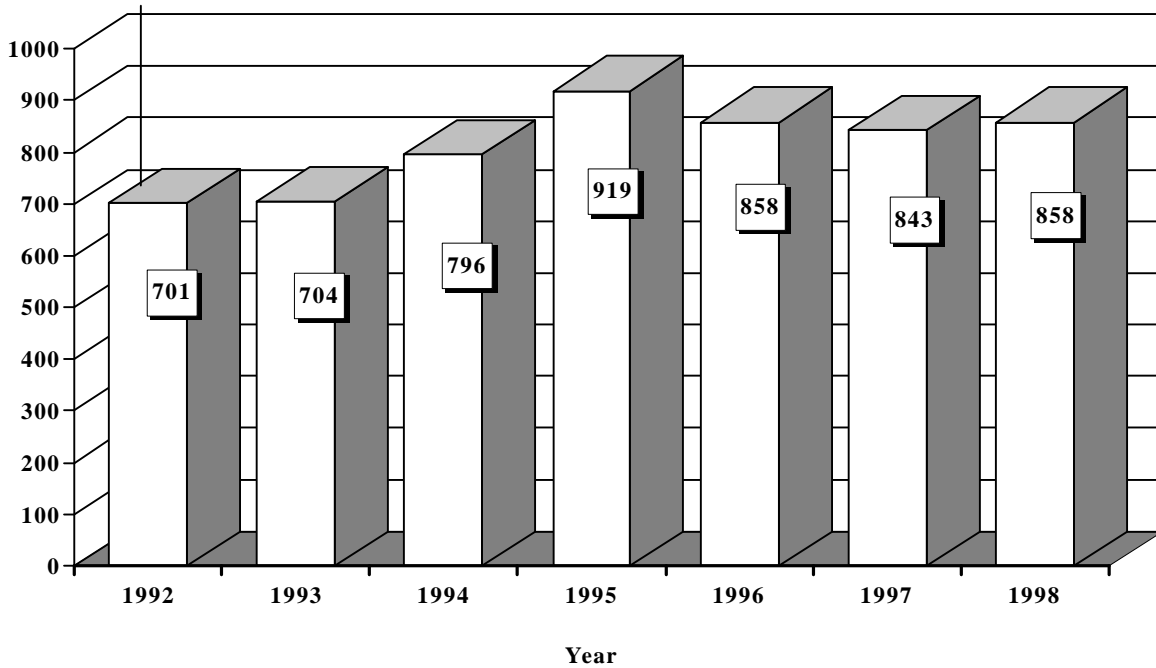


Figure 1-3: Injury Crashes

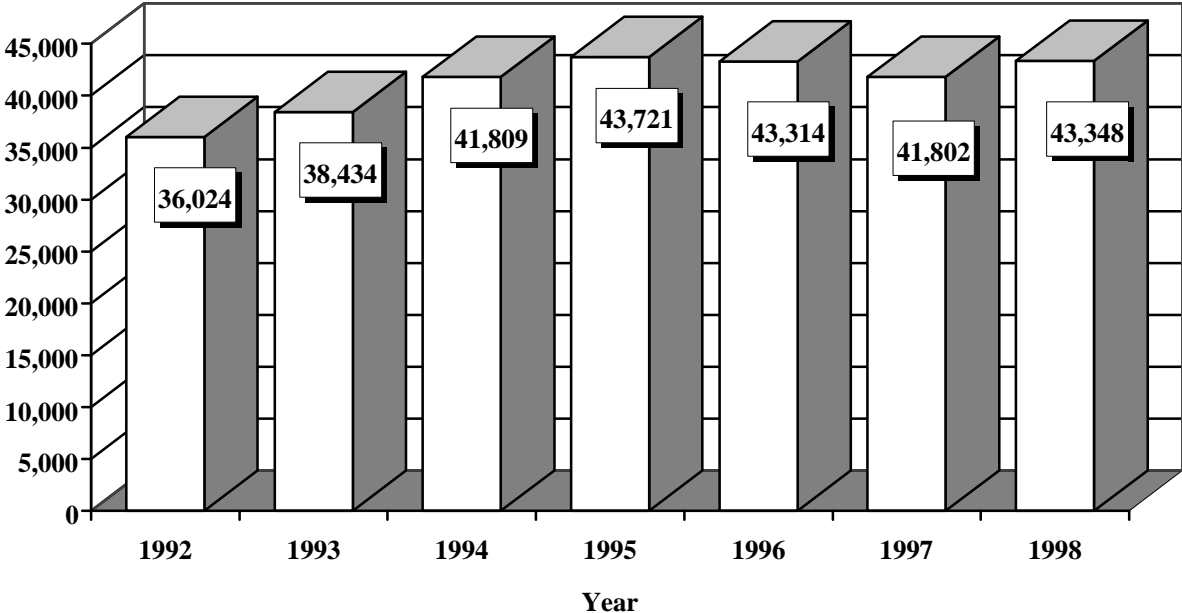
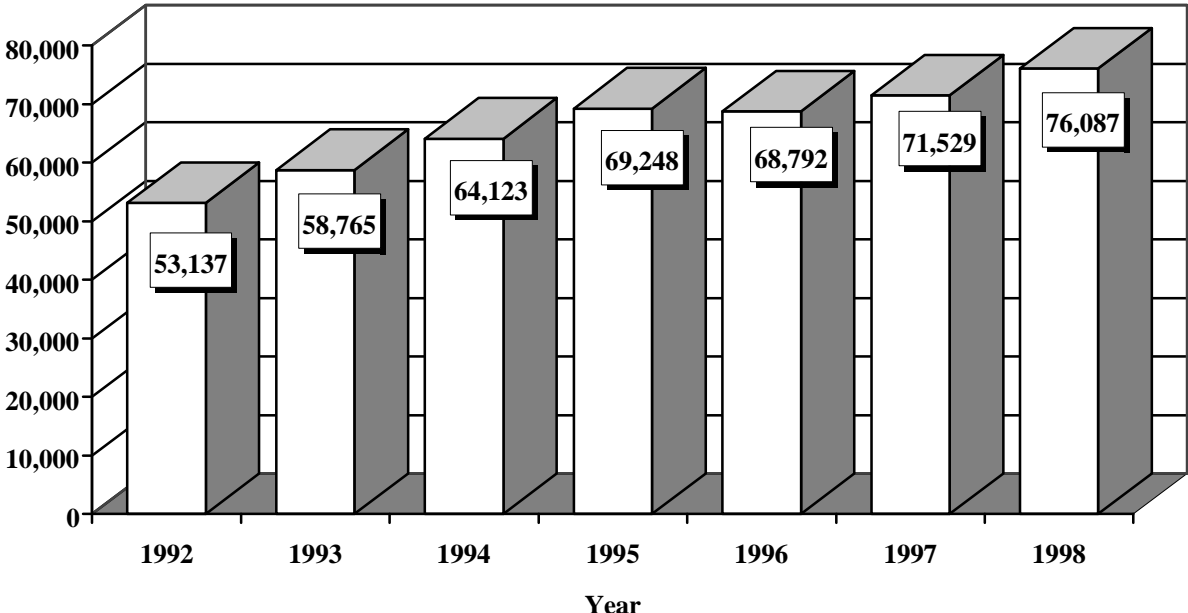


Figure 1-4: Property Damage Only Crashes



Section 1: Highlights and Historical Trends

Table 1-5

Victims of Motor Vehicle Crashes*

Age of Victim	Total Killed			Total Injured			Sex Unk.
	Male	Female		Male	Female		
0 - 4	28	16	12	1,706	848	857	1
5 - 9	22	10	12	2,304	1,163	1,135	6
10 - 14	14	8	6	2,781	1,384	1,397	0
15 - 19	105	67	38	10,210	4,805	5,403	2
20 - 24	103	77	26	9,703	5,040	4,657	6
25 - 34	166	124	42	14,212	7,285	6,920	7
35 - 44	173	113	60	11,282	5,545	5,736	1
45 - 54	117	85	32	7,855	3,736	4,118	1
55 - 64	80	44	36	4,437	2,026	2,408	3
65 - 74	89	46	43	3,098	1,383	1,711	4
75 & Older	79	41	38	2,473	1,105	1,357	11
Age Unknown	4	3	1	767	368	378	21
Totals	980	634	346	70,828	34,688	36,077	63

*Includes all reported injuries and fatalities occurring on Arizona roadways.

Arizona's Estimated Population			
	Population Percentage	Traffic Crash Fatality Percentage	Population Estimate
White	71.61%	56.3%	3,411,518
Hispanic	18.77%	20.7%	894,207
African American	2.86%	3.7%	136,251
Native American	5.18%	18.0%	246,776
Asian	1.41%	1.2%	67,123
Other	0.12%	0.0%	5,717
Total estimated 1998 population		4,764,025**	

Sources: Arizona State Data Center, Arizona Department of Economic Security and The Arizona Department of Health Services, Office of Planning, Evaluation and Public Health Statistics. Population ratios are based on 1990 U.S. Census Data.

**Numbers are based on estimates and may not total to exact number.

Table 1-6

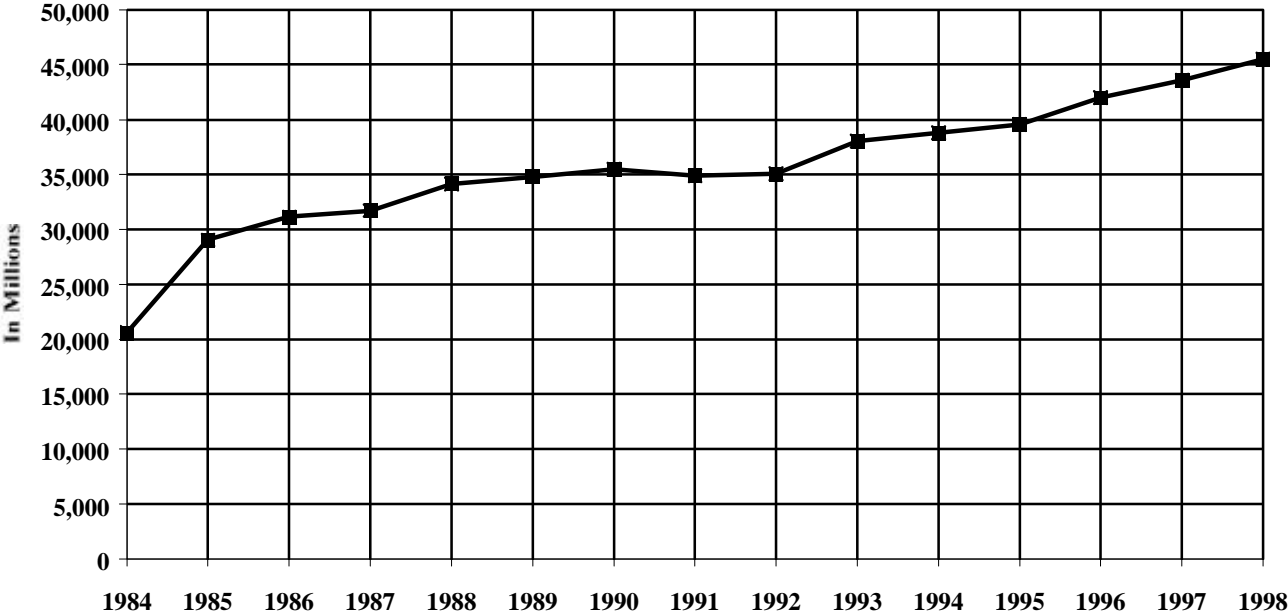
Victims of Motor Vehicle Crashes (Arizona Residents Only)***

Age of Victim	Total Killed	Total Killed		Race				Native American
		Male	Female	White	Hispanic	African American	Asian	
Less than 1	5	3	2	0	4	1	0	0
1-14	64	37	27	22	25	2	1	14
15-19	106	71	35	54	25	5	2	20
20-44	478	345	133	235	112	22	3	105
45-64	185	121	64	123	24	5	5	28
65+	157	82	75	127	14	2	1	13
Unknown	6	5	1	3	3	0	0	0
Total	1,001	664	337	564	207	37	12	180

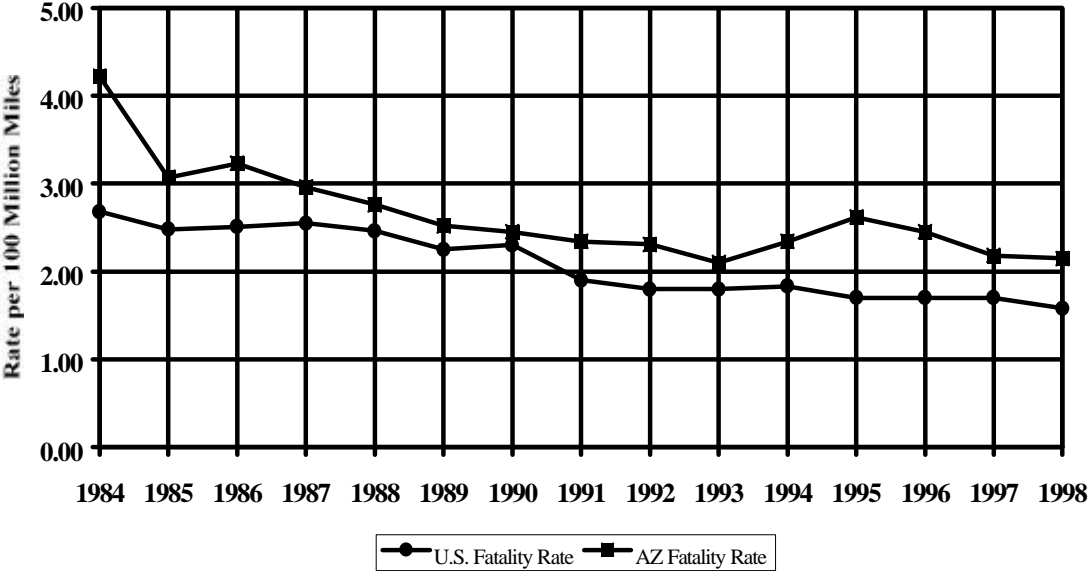
Source: The Arizona Department of Health Services, Office of Planning, Evaluation and Public Health Statistics

***includes victims of crashes occurring outside Arizona.

**Figure 1-5
Vehicle Miles Traveled**



**Figure 1-6
Arizona versus U.S. Fatality Rate**



Section 1: Highlights and Historical Trends

Figure 1-7
Traffic Fatalities by Land Use

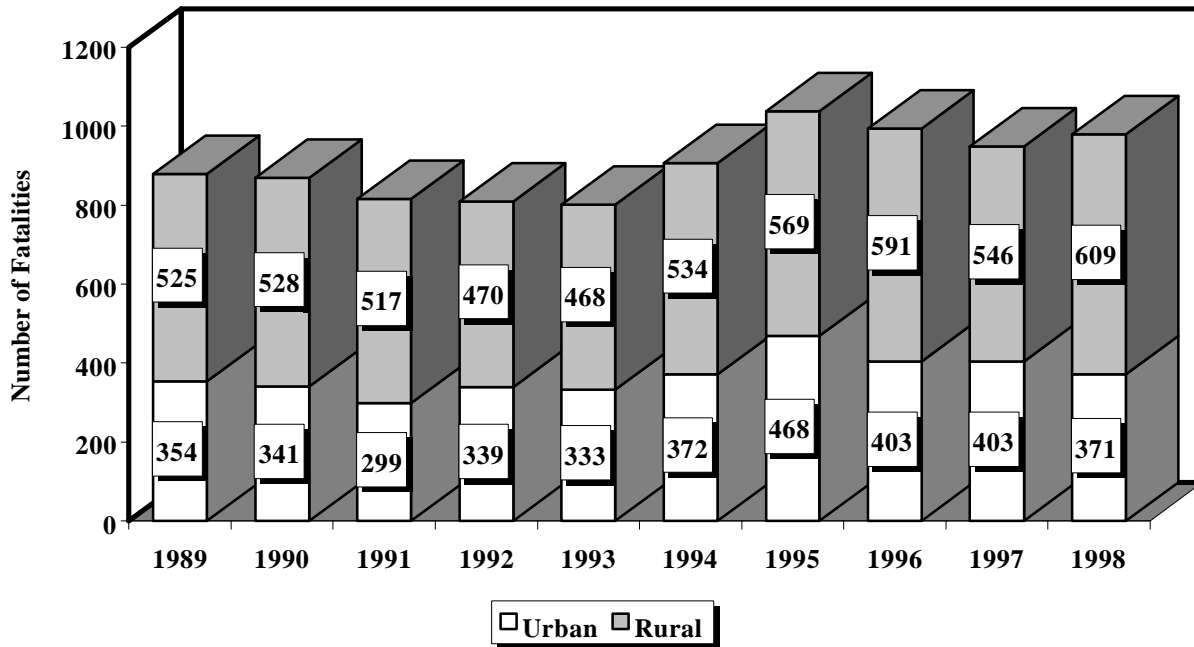
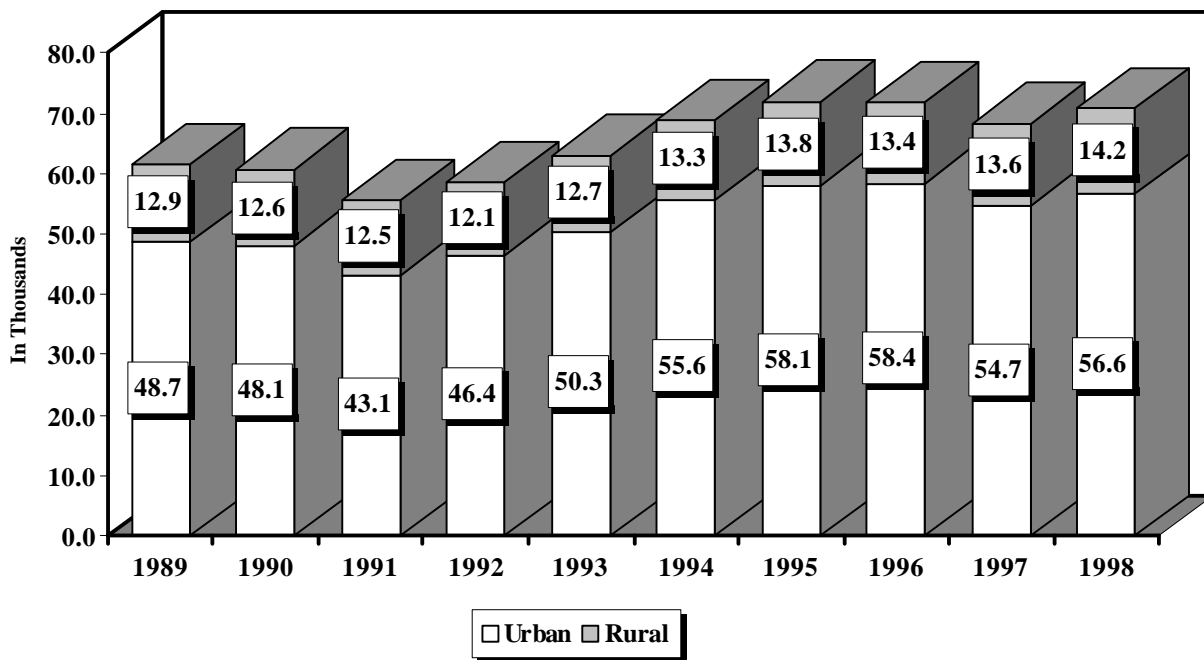


Figure 1-8
Traffic Injuries by Land Use



**Table 1-7
Holiday Crash Statistics**

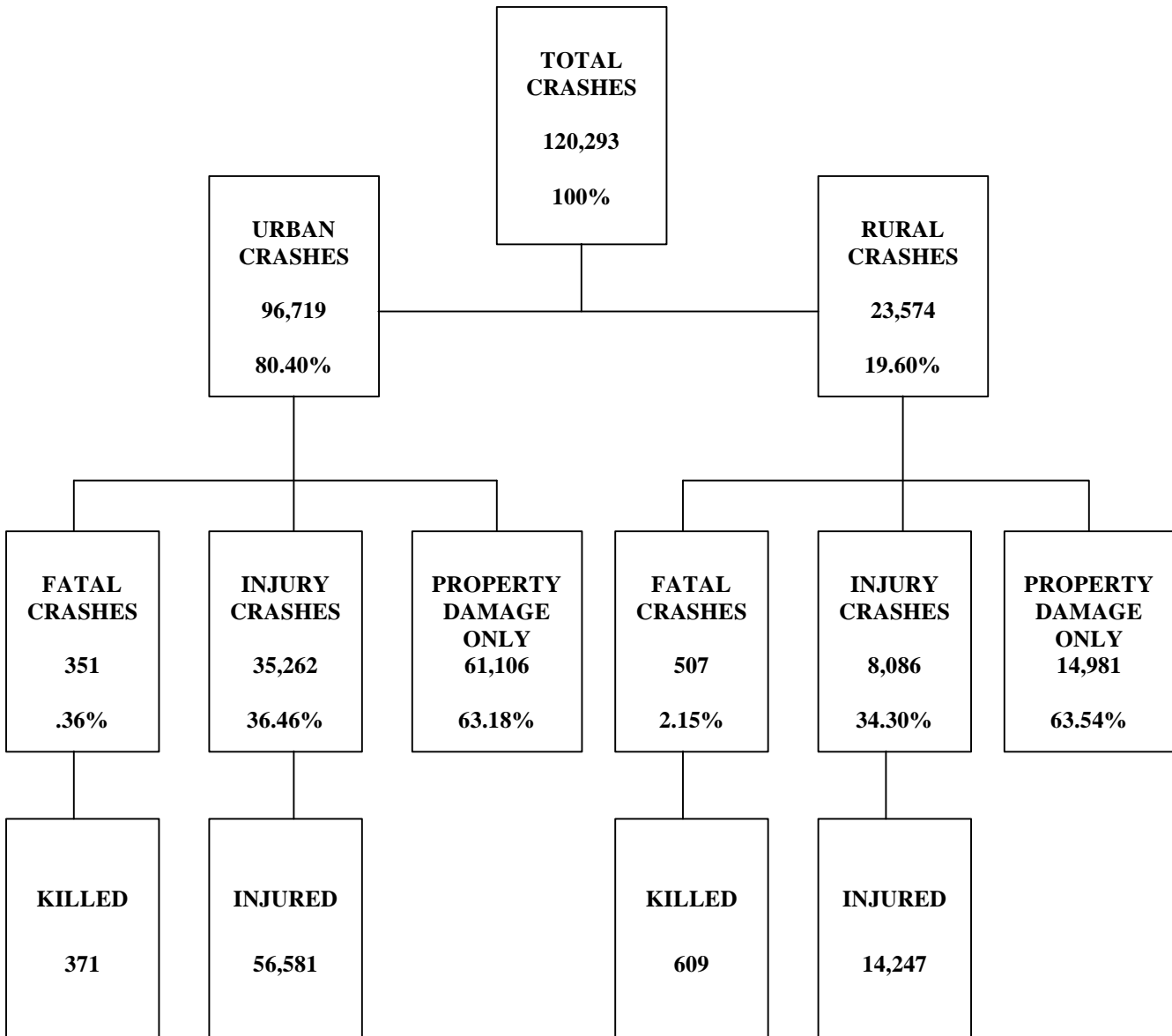
Holidays such as Memorial Day, Labor Day, and Thanksgiving are regarded as a 3 or 4 day weekend holiday for statistical purposes. Holidays such as Christmas, New Years, and the Fourth of July are celebrated on specific dates; which also make the holiday period range from one to four days in length.

Holiday fatality statistics are based on fatal crashes occurring between 6:00 p.m. on the last working day prior to the holiday and midnight on the last day of the holiday period. Example: Thanksgiving fatalities are counted from Wednesday evening at 6:00 p.m. through midnight of the following Sunday.

1998 Holidays	Beginning at 6 p.m.	Ending at Midnight	Number of Days	Fatal Crashes	Persons Killed	Alcohol-Related Crashes	Alcohol-Related Fatalities
New Years	Wednesday 12/31/97	Sunday 1/4/98	4	10	10	2	2
Memorial Day	Friday 5/22/98	Monday 5/25/98	3	10	13	4	4
July 4th	Thursday 7/02/98	Sunday 7/5/98	3	6	7	2	3
Labor Day	Friday 9/04/98	Monday 9/7/98	3	3	3	1	1
Thanksgiving Day	Wednesday 11/25/98	Sunday 11/29/98	4	13	14	5	6
Christmas	Thursday 12/24/98	Sunday 12/27/98	3	10	13	4	4

Fatal Crashes by Year	New Years	Memorial Day	July 4th	Labor Day	Thanks-giving	Christmas	Total
1994	5	7	8	9	10	7	46
1995	7	10	10	13	11	10	62
1996	14	5	9	8	13	1	50
1997	3	9	9	4	22	11	65
1998	10	10	6	3	13	10	52
Persons Killed	New Years	Memorial Day	July 4th	Labor Day	Thanks-Giving	Christmas	Total
1994	6	11	8	9	11	14	59
1995	8	10	11	15	12	14	70
1996	16	6	14	8	16	1	61
1997	3	12	10	4	23	17	82
1998	10	13	7	3	14	13	60
Number of Days	New Years	Memorial Day	July 4th	Labor Day	Thanks-giving	Christmas	Total
1994	3	3	3	3	4	3	19
1995	3	3	1	3	4	3	17
1996	3	3	4	3	4	1	18
1997	1	3	3	3	4	4	18
1998	4	3	3	3	4	3	20

Section 2: Geographic Location



**Tables 2-1, 2-2, and 2-3
Severity by First Harmful Event Statewide**

Statewide	Number of Crashes				Number of Persons	
	Total	Fatal	Injury	PDO	Killed	Injured
Overturning	2,946	152	1,606	1,188	173	2,905
Other Non-Collision	3,616	14	428	3,174	16	532
Pedestrian	1,596	151	1,384	61	153	1,514
Motor Veh. In Transit	93,583	324	33,411	59,848	405	57,588
Motor Veh. Other Roadway	5	0	4	1	0	11
Pedalcyclist	2,248	23	1,929	296	23	1,994
Animal	1,136	6	140	990	7	205
Fixed Object	11,866	159	3,662	8,045	171	5,052
Other Object	91	1	15	75	1	20
Misc.	3,206	28	769	2,409	31	1,007
TOTALS	120,293	858	43,348	76,087	980	70,828

Severity by First Harmful Event in Urban Areas

Urban	Number of Crashes				Number of Persons	
	Total	Fatal	Injury	PDO	Killed	Injured
Overturning	458	12	253	193	12	388
Other Non-Collision	3,115	2	361	2,752	2	436
Pedestrian	1,408	92	1,260	56	93	1,362
Motor Veh. In Transit	81,010	173	29,066	51,771	188	49,334
Motor Veh. Other Roadway	4	0	3	1	0	10
Pedalcyclist	2,088	18	1,797	273	18	1,854
Animal	114	0	14	100	0	17
Fixed Object	7,115	44	2,089	4,982	48	2,688
Other Object	18	1	6	11	1	10
Misc.	1,389	9	413	967	9	482
TOTALS	96,719	351	35,262	61,106	371	56,581

Severity by First Harmful Event in Rural Areas

Rural	Number of Crashes				Number of Persons	
	Total	Fatal	Injury	PDO	Killed	Injured
Overturning	2,488	140	1,353	995	161	2,517
Other Non-Collision	501	12	67	422	14	96
Pedestrian	188	59	124	5	60	152
Motor Veh. In Transit	12,573	151	4,345	8,077	217	8,254
Motor Veh. Other Roadway	1	0	1	0	0	1
Pedalcyclist	160	5	132	23	5	140
Animal	1,022	6	126	890	7	188
Fixed Object	4,751	115	1,573	3,063	123	2,364
Other Object	73	0	9	64	0	10
Misc.	1,817	19	356	1,442	22	525
TOTALS	23,574	507	8,086	14,981	609	14,247

Section 2: Geographic Location

Table 2-4
Crashes by County

County	Number of Crashes				Number of Persons	
	Total	Fatal	Injury	PDOs	Fatalities	Injuries
Apache	492	36	152	304	41	276
Cochise	1,966	23	595	1,348	25	960
Coconino	4,587	53	1,179	3,355	65	2,002
Gila	1,138	18	374	746	19	643
Graham	395	10	146	239	12	278
Greenlee	80	1	33	46	1	44
La Paz	416	23	132	261	32	280
Maricopa	78,395	372	28,730	49,293	412	46,529
Mohave	2,871	48	963	1,860	58	1,603
Navajo	1,136	26	375	734	31	619
Pima	19,570	100	7,604	11,866	107	12,390
Pinal	2,985	69	977	1,939	83	1,740
Santa Cruz	600	3	140	457	3	223
Yavapai	3,347	54	1,005	2,288	62	1,699
Yuma	2,315	22	942	1,351	29	1,541
Total	120,293	858	43,347	76,087	980	70,827

While rural crashes in Arizona accounted for only 19.6% of all crashes, they were responsible for 59.1% of all fatal crashes occurring in 1998.

Table 2-5
Analysis by Jurisdiction

COUNTIES Cities	Total	Number of Crashes			No. of Persons		Alcohol-Related		
		Fatal	Injury	Property Damage	Killed	Injured	Crashes	Killed	Injured
APACHE COUNTY									
Eagar	63	0	16	47	0	27	1	0	0
St. Johns	9	0	0	9	0	0	1	0	0
Springerville	1	0	1	0	0	1	0	0	0
Ft. Apache Reserv.	44	1	16	27	1	28	0	0	0
Navajo Reservation	124	26	37	61	30	62	12	6	16
State Rural Roads	238	9	77	152	10	145	15	1	9
Other Rural Roads	13	0	5	8	0	0	0	0	0
TOTAL	492	36	152	304	41	263	29	7	25

1998 Arizona Crash Facts Summary

COUNTIES Cities	Total	Number of Crashes			No. of Persons		Alcohol-Related		
		Fatal	Injury	Property Damage	Killed	Injured	Crashes	Killed	Injured
COCHISE COUNTY									
Benson	31	1	10	20	1	11	3	0	2
Bisbee	44	0	13	31	0	19	3	0	3
Douglas	308	0	59	249	0	98	25	0	11
Huachuca City	9	0	4	5	0	10	1	0	0
Sierra Vista	648	1	193	454	1	291	33	1	14
Tombstone	18	0	4	14	0	5	0	0	0
Willcox	52	1	14	37	1	16	3	1	0
State Rural Roads	638	15	222	401	17	385	38	3	41
Other Rural Roads	218	5	76	137	5	125	26	0	20
TOTAL	1,966	23	595	1,348	25	960	132	5	91
COCONINO COUNTY									
Flagstaff	2,437	4	520	1,913	4	753	116	1	80
Fredonia	2	0	1	1	0	1	1	0	0
Page	113	3	34	76	3	74	17	1	15
Sedona	229	0	63	166	0	96	12	0	7
Williams	28	0	6	22	0	9	2	0	1
Hualapai Reservation	3	1	0	2	1	0	1	0	0
Navajo Reservation	90	13	29	48	18	81	15	6	24
State Rural Roads	1,452	28	462	962	33	865	66	4	70
Other Rural Roads	233	4	64	165	6	123	22	1	11
TOTAL	4,587	53	1,179	3,355	65	2,002	252	13	208
GILA COUNTY									
Globe	180	1	60	119	1	96	20	1	16
Hayden	3	0	1	2	0	2	0	0	0
Miami	38	0	5	33	0	8	2	0	0
Payson	183	0	63	120	0	101	11	0	13
Winkelman	4	0	2	2	0	4	0	0	0
Ft. Apache Reserv.	25	1	8	16	1	8	3	1	2
San Carlos Reserv.	19	5	3	11	5	12	2	2	2
State Rural Roads	537	7	187	343	8	336	46	3	52
Other Rural Roads	149	4	45	100	4	76	21	1	19
TOTAL	1,138	18	374	746	19	643	105	8	104
GRAHAM COUNTY									
Pima	23	0	12	11	0	25	4	0	10
Safford	103	0	38	65	0	63	9	0	6
Thatcher	55	1	19	35	1	44	8	0	16
San Carlos Reserv.	3	2	0	1	2	1	0	0	0
State Rural Roads	135	4	54	77	6	100	19	0	22
Other Rural Roads	76	3	23	50	3	45	14	1	23
TOTAL	395	10	146	239	12	278	54	1	77

Section 2: Geographic Location

COUNTIES Cities	Total	Number of Crashes			No. of Persons		Alcohol-Related		
		Fatal	Injury	Property Damage	Killed	Injured	Crashes	Killed	Injured
GREENLEE COUNTY									
Clifton	5	1	2	2	1	3	2	0	2
Duncan	1	0	0	1	0	0	0	0	0
State Rural Roads	74	0	31	43	0	41	8	0	6
Other Rural Roads	0	0	0	0	0	0	0	0	0
TOTAL	80	1	33	46	1	44	10	0	8
LA PAZ COUNTY									
Parker	3	1	0	2	1	3	0	0	0
Quartzite	33	1	5	27	1	7	2	1	3
Colo. River Resv.	26	6	10	10	13	34	5	9	11
State Rural Roads	333	12	111	210	14	226	24	2	24
Other Rural Roads	21	3	6	12	3	10	3	1	5
TOTAL	416	23	132	261	32	280	34	13	43
MARICOPA COUNTY									
Avondale	362	2	104	256	2	169	31	1	20
Buckeye	1	0	0	1	0	0	0	0	0
Carefree	2	0	0	2	0	0	0	0	0
Cave Creek	2	0	0	2	0	0	1	0	0
Chandler	1,953	9	634	1,310	9	1,015	114	1	93
El Mirage	62	0	27	35	0	46	5	0	2
Fountain Hills	11	0	4	7	0	4	0	0	0
Ft. McDowell Resv	1	1	0	0	1	0	0	0	0
Gila Bend	3	0	1	2	0	1	0	0	0
Gila River Reserv	87	2	32	53	3	86	12	2	27
Gilbert	1,013	5	326	682	5	537	48	2	44
Glendale	2,224	17	956	1,251	17	1,641	149	5	155
Goodyear	149	1	59	89	1	104	9	0	7
Guadalupe	18	0	5	13	0	6	2	0	0
Mesa	10,964	33	3,492	7,439	33	5,457	496	9	400
Paradise Valley	177	0	60	117	0	83	11	0	7
Peoria	1,144	4	367	773	4	556	58	1	35
Phoenix	42,412	151	16,226	26,035	167	26,428	2,671	42	2,386
Salt River Reserv	234	6	62	166	6	109	18	2	13
Scottsdale	4,478	22	1,607	2,849	23	2,539	262	4	195
Surprise	123	0	52	71	0	93	6	0	4
Tempe	7,888	22	2,812	5,054	23	4,314	450	7	408
Tolleson	120	0	45	75	0	75	2	0	1
Wickenburg	59	1	22	36	1	33	3	0	0
Youngtown	1	0	0	1	0	0	0	0	0
State Rural Roads	1,758	51	635	1,072	65	1,173	135	12	143
Other Rural Roads	3,149	45	1,202	1,902	52	2,060	223	20	255
TOTAL	78,395	372	28,730	49,293	412	46,528	4,706	108	4,195

1998 Arizona Crash Facts Summary

COUNTIES Cities	Total	Number of Crashes			No. of Persons		Alcohol-Related		
		Fatal	Injury	Property Damage	Killed	Injured	Crashes	Killed	Injured
MOHAVE COUNTY									
Bullhead City	728	7	175	546	7	251	64	1	34
Colorado City	15	0	4	11	0	9	0	0	0
Hualapai Reserv.	10	1	7	2	1	21	4	1	15
Kaibab-Paiute Resv.	3	0	2	1	0	4	1	0	2
Kingman	360	4	119	237	4	193	20	0	11
Lake Havasu City	440	1	192	247	1	286	44	0	38
State Rural Roads	973	28	331	614	36	622	69	5	70
Other Rural Roads	342	7	133	202	9	217	70	2	67
TOTAL	2,871	48	963	1,860	58	1,603	272	9	237
NAVAJO COUNTY									
Holbrook	62	1	16	45	2	30	6	2	11
Ft. Apache Reserv.	54	7	17	30	7	29	4	4	3
Hopi Reservation	10	4	1	4	6	3	2	2	0
Navajo Reservation	21	7	6	8	8	12	3	1	5
Pinetop-Lakeside	81	0	27	54	0	35	4	0	0
Show Low	157	0	57	100	0	92	9	0	5
Snowflake	43	0	20	23	0	33	2	0	2
Taylor	4	0	3	1	0	6	2	0	5
Winslow	161	0	30	131	0	44	20	0	10
State Rural Roads	383	6	136	241	6	230	26	0	28
Other Rural Roads	160	1	62	97	2	103	25	2	17
TOTAL	1,136	26	375	734	31	617	103	11	86
PIMA COUNTY									
Marana	444	0	116	328	0	164	18	0	5
Oro Valley	178	0	56	122	0	87	5	0	4
Papago Reservation	108	6	47	55	8	109	27	5	39
San Xavier Reserv, Sahuarita	55	2	27	26	4	51	6	3	15
South Tucson	16	0	9	7	0	16	1	0	3
Tucson	193	2	60	131	2	88	22	1	18
Tucson	13,787	41	5,571	8,175	42	9,001	740	12	683
State Rural Roads	1,245	19	433	793	19	751	105	10	105
Other Rural Roads	3,544	30	1,285	2,229	32	2,123	248	7	239
TOTAL	19,570	100	7,604	11,866	107	12,390	1,172	38	1,111
PINAL COUNTY									
Apache Junction	405	9	144	252	9	230	27	1	14
Casa Grande	594	2	155	437	2	261	31	1	26
Coolidge	63	0	15	48	0	28	5	0	4
Eloy	123	2	38	83	2	72	17	1	19
Florence	66	1	9	56	1	17	4	0	7
Gila River Reserv.	226	7	76	143	7	139	30	2	30
Kearny	6	0	1	5	0	1	1	0	1
Mammoth	11	0	2	9	0	7	2	0	6
Superior	46	0	10	36	0	15	7	0	5
State Rural Roads	889	37	319	533	44	614	93	16	74
Other Rural Roads	556	11	208	337	18	356	66	13	68
TOTAL	2,985	69	977	1,939	83	1,740	283	34	254

Section 2: Geographic Location

About 58.9% of Arizona's population resides in Maricopa county, but only 43.4% of all fatal crashes occurred there in 1998.

COUNTIES Cities	Total	Number of Crashes			No. of Persons		Alcohol-Related		
		Fatal	Injury	Property Damage	Killed	Injured	Crashes	Killed	Injured
SANTA CRUZ COUNTY									
Nogales	386	0	76	310	0	122	22	0	18
Patagonia	1	0	1	0	0	1	0	0	0
State Rural Roads	207	3	62	142	3	99	16	1	19
Other Rural Roads	6	0	1	5	0	1	0	0	0
TOTAL	600	3	140	457	3	223	38	1	37
YAVAPAI COUNTY									
Camp Verde	108	1	22	85	1	48	10	0	10
Chino Valley	94	0	22	72	0	36	6	0	0
Cottonwood	189	1	51	137	1	92	6	0	5
Jerome	3	0	0	3	0	0	0	0	0
Prescott	712	5	221	486	5	349	44	1	41
Prescott Valley	273	2	74	197	2	114	24	1	13
State Rural Roads	1,563	38	478	1,047	46	856	81	5	73
Other Rural Roads	405	7	137	261	7	204	54	2	40
TOTAL	3,347	54	1,005	2,288	62	1,699	225	9	182
YUMA COUNTY									
San Luis	50	0	10	40	0	13	3	0	1
Somerton	23	0	5	18	0	6	3	0	0
Wellton	1	0	0	1	0	0	0	0	0
Yuma	1,401	5	652	744	5	1,027	113	2	91
State Rural Roads	387	12	111	264	15	197	26	0	20
Other Rural Roads	453	5	164	284	9	298	49	6	55
TOTAL	2,315	22	942	1351	29	1,541	194	8	167
STATEWIDE TOTAL	120,293	858	43,347	76,087	980	70,827	7,609	265	6,825

Totals within city and town jurisdictions include all State Highways

During 1998, across the nation, total police-reported crashes decreased 3.9 percent while vehicle miles traveled (VMT) increased by 3.1 percent since 1997.

Figure 2-1
Crash Rate per 100,000 People

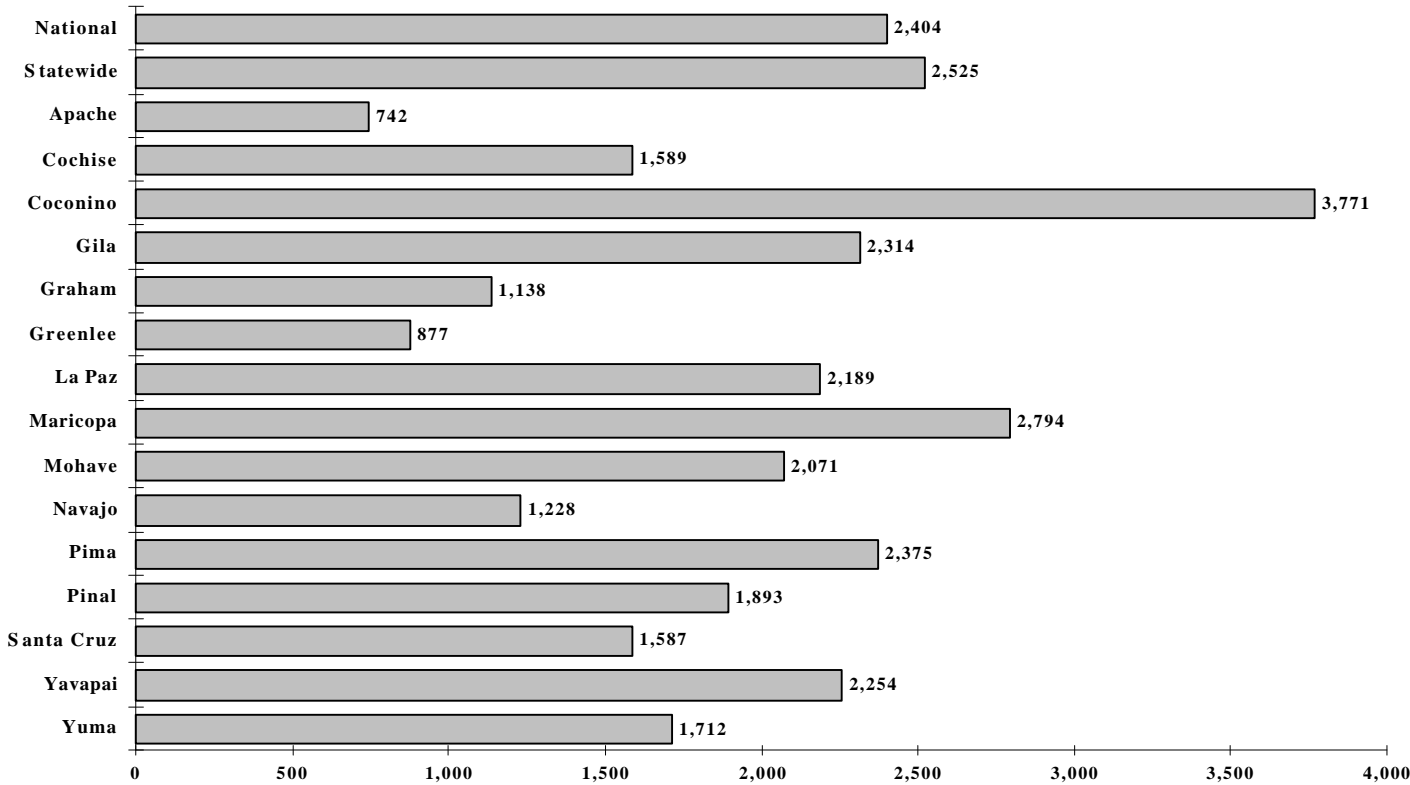
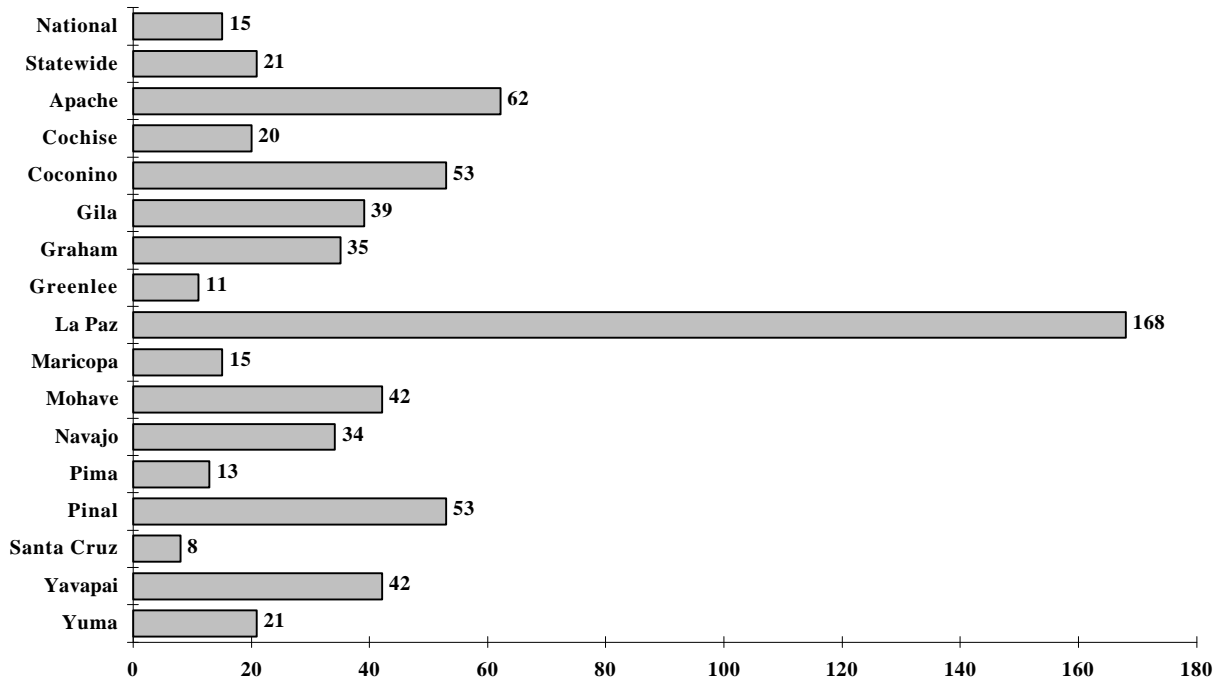


Figure 2-2
Fatality Rate per 100,000 People



Section 2: Geographic Location

Table 2-6
The State Highway System*

Route	Number of Crashes				Number of Persons				
	Total	Fatal	Injury	Property Damage	Total Killed	Total Injured	Possible Injury	Non-Incap Injury	Incap Injury
I 8	332	11	98	223	15	191	52	113	26
SB 8	57	2	24	31	2	38	17	15	6
I 10	5,865	73	1,625	4,167	87	2,648	1,460	857	331
SB 10	24	2	5	17	2	10	4	6	0
I 15	116	4	42	70	5	82	23	35	24
I 17	3,910	25	1,112	2,773	26	1,779	1,059	585	135
I 19	563	5	180	378	7	299	144	133	22
SB 19	63	2	34	27	2	61	25	21	15
I 40	1,495	47	454	994	57	833	282	393	158
SB 40	519	1	150	368	1	223	149	73	1
S 51	804	1	229	574	1	327	233	82	12
U 60	2,467	21	795	1,651	24	1,330	725	426	179
S 61	17	1	7	9	1	11	7	4	0
S 64	119	4	41	74	4	104	57	41	6
S 66	46	1	16	29	1	39	23	7	9
S 67	23	0	5	18	0	11	2	7	2
S 68	81	5	32	44	6	63	27	23	13
S 69	325	4	113	208	5	183	101	58	24
U 70	134	7	66	61	9	143	54	51	38
S 71	8	0	3	5	0	4	3	1	0
S 72	16	0	6	10	0	8	0	2	6
S 73	10	4	4	2	4	10	5	2	3
S 74	27	1	11	15	1	21	8	8	5
S 75	9	0	2	7	0	2	0	2	0
S 77	546	8	202	336	9	362	177	129	56
S 78	5	0	1	4	0	1	1	0	0
S 79	78	3	25	50	3	51	23	13	15
SB 79	3	0	0	3	0	0	0	0	0
S 80	132	1	43	88	1	70	35	24	11
S 81	0	0	0	0	0	0	0	0	0
S 82	63	1	24	38	1	43	15	23	5
S 83	27	2	8	17	2	12	2	9	1
S 84	69	3	27	39	4	47	23	15	9
S 85	82	7	32	43	12	95	41	23	31
S 86	122	5	53	64	5	103	37	53	13
S 87	676	8	273	395	9	489	189	181	119
S 88	136	3	61	72	3	103	25	57	21
S 89	247	6	91	150	11	139	69	47	23
SA 89	522	7	148	367	7	250	139	78	33
SL 89	1	0	1	0	0	1	1	0	0
U 89	261	7	79	175	8	158	57	75	26
UA 89	48	3	17	28	6	38	18	16	4
S 90	187	3	64	120	3	129	63	58	8
S 92	99	2	35	62	3	57	26	21	10
U 93	378	10	142	226	14	285	126	123	36

Legend:

In the route column, the first letter signifies the following: I=Interstate, S=State, U=U.S. Highway.

The second letter signifies: A=alternate, B=business, L=loop, S=spur, X=temporary.

1998 Arizona Crash Facts Summary

Route	Number of Crashes				Number of Persons				
	Total	Fatals	Injury	Property Damage	Killed	Total Injured	Possible Injury	Non-Incap Injury	Incap Injury
S 95	732	11	238	483	18	403	222	130	51
U 95	150	4	46	100	4	90	45	32	13
S 96	12	1	6	5	1	13	3	10	0
S 97	5	0	3	2	0	3	1	1	1
S 98	14	2	4	8	2	7	5	1	1
S 99	5	0	2	3	0	3	0	3	0
S 101	398	3	94	301	3	140	86	39	15
S 143	125	0	35	90	0	45	25	17	3
S 153	3	0	1	2	0	1	1	0	0
U 160	29	10	10	9	12	27	12	10	5
U 163	2	1	0	1	1	0	0	0	0
S 169	29	0	6	23	0	12	2	2	8
S 170	0	0	0	0	0	0	0	0	0
S 177	26	2	10	14	2	19	1	16	2
S 179	85	0	21	64	0	28	15	7	6
U 180	182	3	47	132	3	86	31	43	12
S 181	2	0	1	1	0	4	4	0	0
S 186	6	0	0	6	0	0	0	0	0
S 187	3	0	2	1	0	2	0	1	1
S 188	23	0	3	20	0	3	1	1	1
S 189	3	0	0	3	0	0	0	0	0
U 191	201	6	83	112	7	139	52	50	37
UB 191	2	0	0	2	0	0	0	0	0
UX 191	9	0	2	7	0	3	3	0	0
S 202	1,262	4	343	915	4	491	338	119	34
S 238	4	0	2	2	0	2	0	2	0
S 260	642	5	196	441	5	329	199	108	22
S 261	5	0	1	4	0	2	2	0	0
S 264	13	6	4	3	6	9	3	5	1
S 266	7	1	4	2	1	6	0	4	2
S 273	14	0	4	10	0	9	2	4	3
S 277	22	0	8	14	0	11	6	3	2
S 280	11	0	4	7	0	6	3	0	3
S 286	5	0	5	0	0	7	5	2	0
S 287	39	0	12	27	0	23	14	7	2
S 288	14	0	7	7	0	16	3	12	1
S 289	5	0	2	3	0	5	2	3	0
S 303	38	2	16	20	0	40	8	17	15
S 347	28	2	12	14	4	21	10	9	2
S 366	15	0	4	11	0	4	0	3	1
S 373	1	0	1	0	0	1	0	1	0
S 377	8	0	3	5	0	6	0	5	1
S 386	1	0	0	1	0	0	0	0	0
S 387	20	0	4	16	0	6	2	3	1
S 389	9	0	6	3	0	8	1	4	3
S 473	2	0	1	1	0	2	0	2	0
S 564	0	0	0	0	0	0	0	0	0
S 587	19	2	7	10	2	17	10	4	3
TOTAL	24,945	365	7,641	16,939	438	12,903	6,645	4,570	1,688

* This table does not include crashes on the state highway system where a local street name was used as a reference on the police accident report form.

Section 3: Crash Descriptions

Section 3: Crash Descriptions

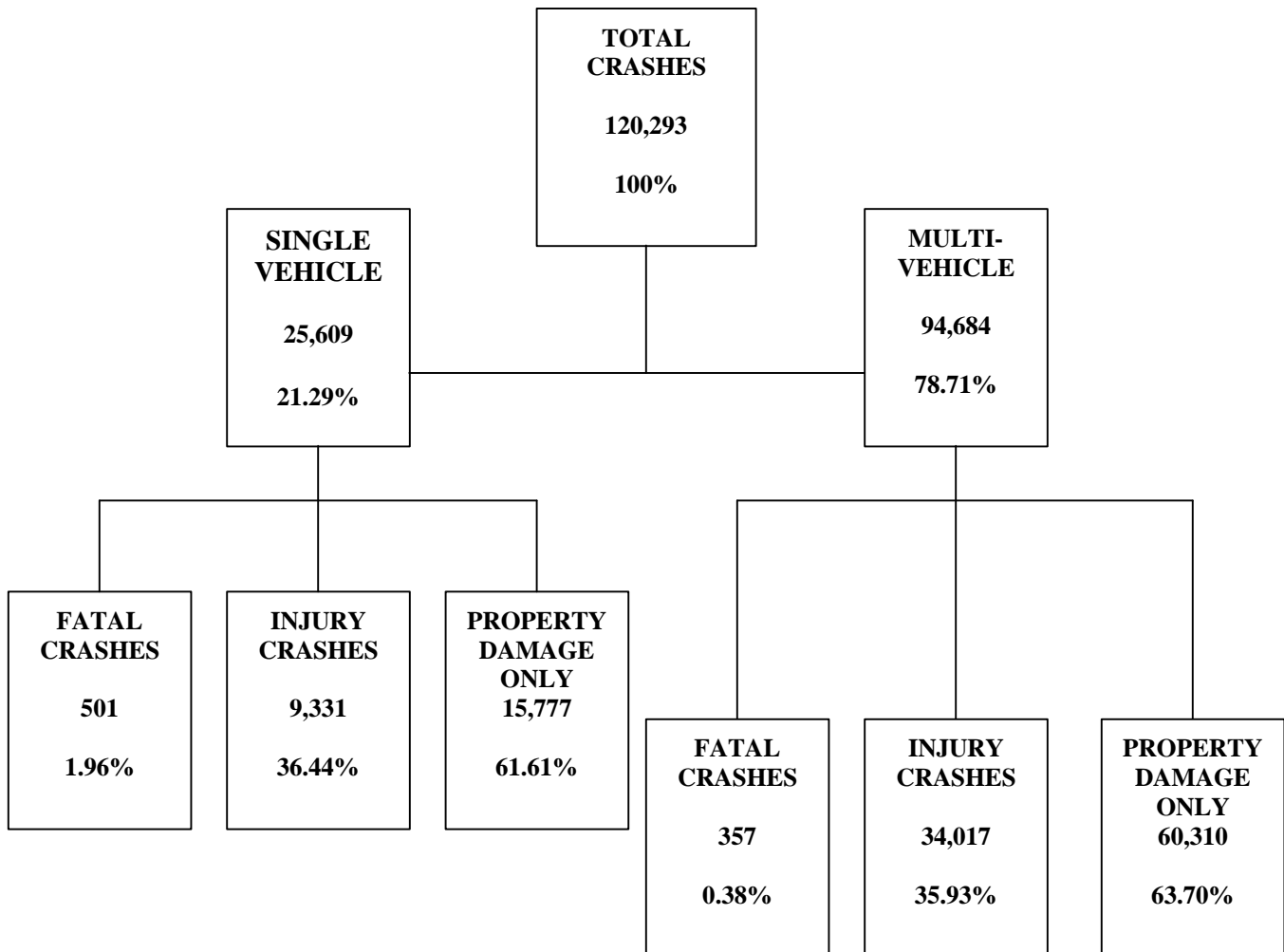


Table 3-1
Manner of Collision in Multi-Vehicle Crashes

Manner of Collision	Percent of		Percent of		Percent of	
	Total	All Crashes	Fatal	Fatal Crashes	Injury	Injury Crashes
Head On	547	0.58%	66	18.49%	346	1.02%
Rear End	41,281	43.60%	49	13.73%	15,087	44.35%
Side Swipe Opposite Direction	1,068	1.13%	26	7.28%	418	1.23%
Side Swipe Same Direction	11,731	12.39%	21	5.88%	2,015	5.92%
Left Turn	12,556	13.26%	48	13.45%	6,149	18.08%
Other Angle	21,343	22.54%	111	31.09%	8,645	25.41%
Backed Into	1,966	2.08%	0	0%	146	0.43%
U-Turn	1,335	1.41%	3	0.84%	431	1.27%
Other	2,857	3.01%	33	9.24%	781	2.29%
TOTAL	94,684	100%	357	100.00%	34,017	100%

Table 3-2
Unusual Road Conditions

Unusual Road Conditions	Number of Crashes				Number of Victims	
	Total	Fatal	Injury	PDO	Killed	Injured
No Unusual Condition	115,022	818	41,700	72,504	929	68,099
Under Construction Thru Traffic Allowed	3,413	19	1,055	2,339	22	1,733
Under Construction Traffic Detoured	71	1	17	53	1	19
Under Repairs	128	3	43	82	3	80
Holes,Ruts,Bumps	433	11	172	250	12	280
Obstruction Protected	45	0	11	34	0	15
Obstruction Unprotected	129	1	31	97	1	46
Obstruction Unlighted at Night	49	1	22	26	1	33
Defective Shoulders	29	1	10	18	7	23
Changing Road Width	366	1	96	269	1	167
Flooded	174	1	51	122	1	72
Temporary Lane Closure	434	1	140	293	2	261
TOTALS	120,293	858	43,348	76,087	980	70,828

Section 3: Crash Descriptions

**Table 3-3
Weather Conditions**

Weather	Number of Crashes			Number of Persons		
	Total	Fatal	Injury	PDO	Killed	Injured
Clear	99,036	664	35,969	62,403	766	58,718
Raining	6,857	40	2,318	4,499	42	3,849
Cloudy	12,164	102	4,422	7,640	111	7,199
Snowing	1,130	6	271	853	8	468
Strong Wind	423	4	149	270	5	249
Dust	35	0	16	19	0	26
Fog	194	1	64	129	1	97
Not Reported	454	41	139	274	47	222
TOTALS	120,293	858	43,348	76,087	980	70,828

**Table 3-4
Lighting Conditions**

Lighting	Number of Crashes			Number of Persons		
	Total	Fatal	Injury	PDO	Killed	Injured
Daylight	87,857	439	31,275	56,143	497	50,357
Dawn or Dusk	5,723	50	1,998	3,675	61	3,283
Darkness	26,572	369	10,045	16,158	422	17,132
Not Reported	141	0	30	111	0	56
TOTALS	120,293	858	43,348	76,087	980	70,828

**Table 3-5
Road Surface**

Surface	Number of Crashes			Number of Persons		
	Total	Fatal	Injury	PDO	Killed	Injured
Asphalt	108,841	754	39,970	68,117	864	65,697
Concrete	9,221	27	2,662	6,532	31	3,939
Gravel	376	9	112	255	10	196
Dirt	1,416	24	458	934	26	758
Other	91	2	33	56	2	55
Not Reported	348	42	113	193	47	183
TOTALS	120,293	858	43,348	76,087	980	70,828

**Table 3-6
Road Surface Conditions**

Surface	Number of Crashes				Number of Persons	
	Total	Fatal	Injury	PDO	Killed	Injured
Wet	9,263	57	3,176	6,030	60	5,213
Loose Dirt, Sand, Etc.	1,590	31	516	1,043	34	845
Snowy or Icy	1,855	12	453	1,390	14	763
Fresh Oil	102	0	53	49	0	70
Other	406	7	104	295	8	171
Unknown	1,280	7	370	903	15	580
No Unusual Conditions	105,797	744	38,676	66,377	849	63,186
TOTALS	120,293	858	43,348	76,087	980	70,828

Nationally, traffic fatalities account for more than 90 percent of transportation-related fatalities.

**Table 3-7
Road Grade**

Road Grade	Number of Crashes				Number of Persons	
	Total	Fatal	Injury	PDO	Killed	Injured
Level	107,428	632	39,045	67,751	720	63,691
Downgrade	6,676	119	2,319	4,238	137	3,886
Upgrade	4,577	52	1,472	3,053	63	2,444
Hill crest	377	4	132	241	4	209
Dip	206	4	85	117	4	130
Not Reported	1,029	47	295	687	52	468
TOTALS	120,293	858	43,348	76,087	980	70,828

Section 3: Crash Descriptions

Figure 3-1
Crashes by Time of Day
Weekdays

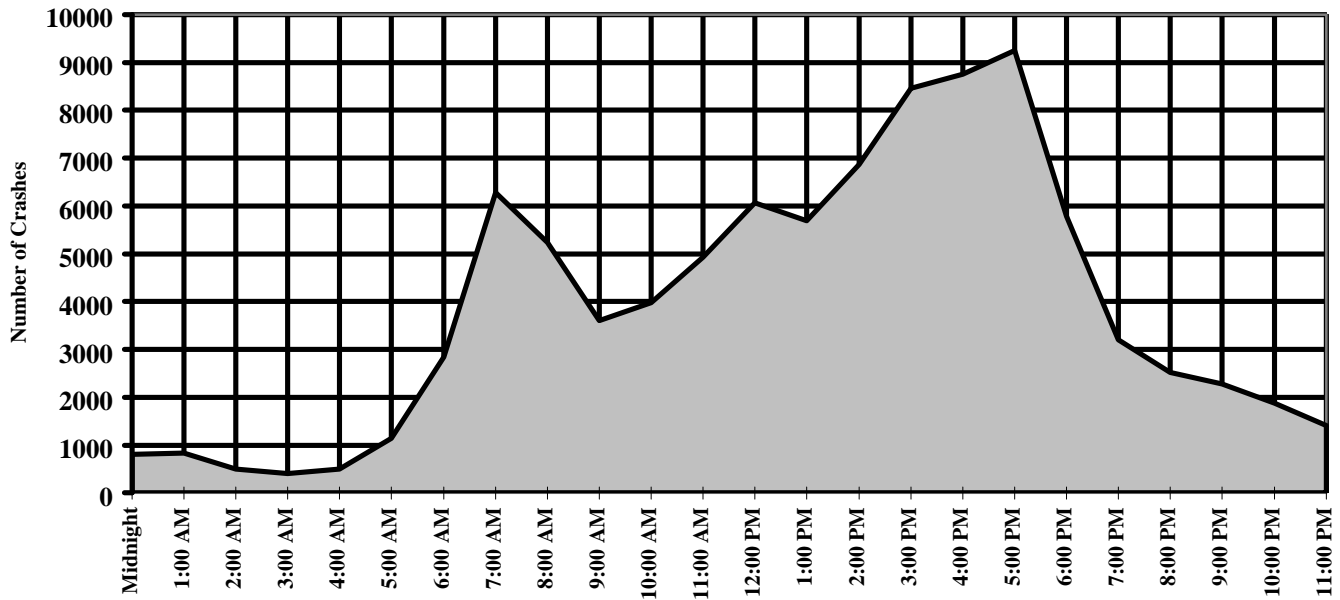
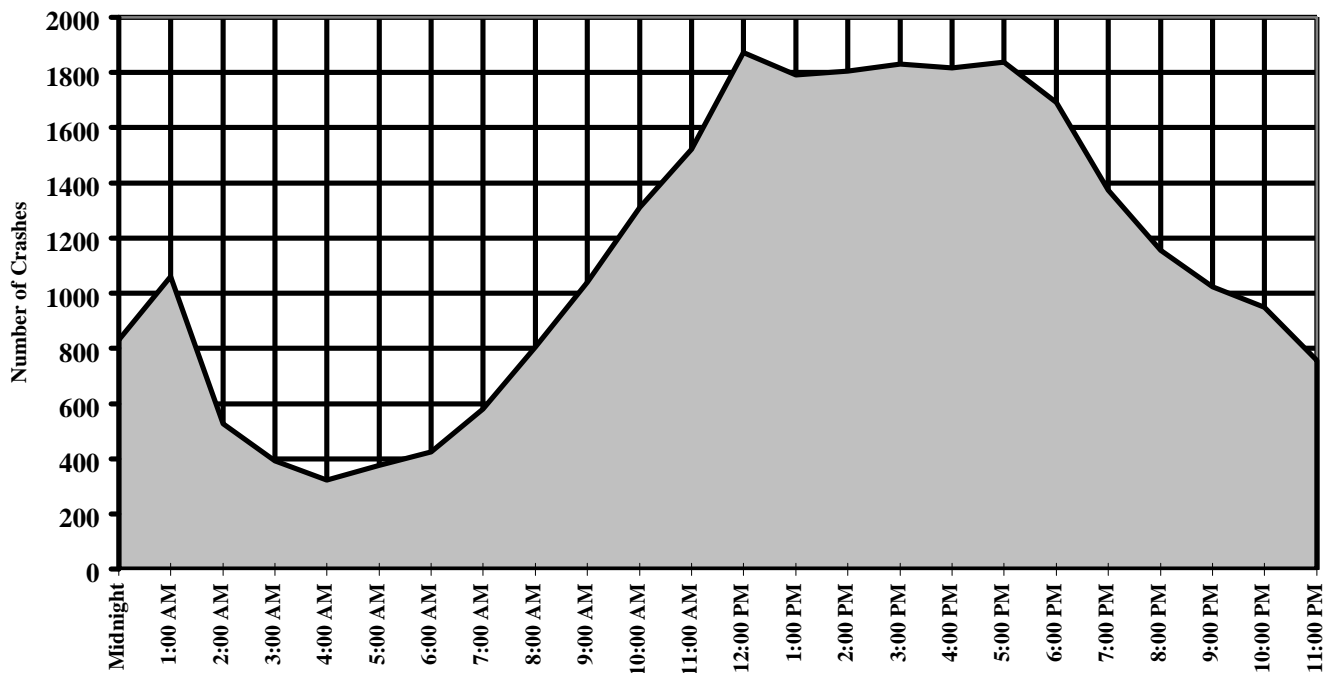
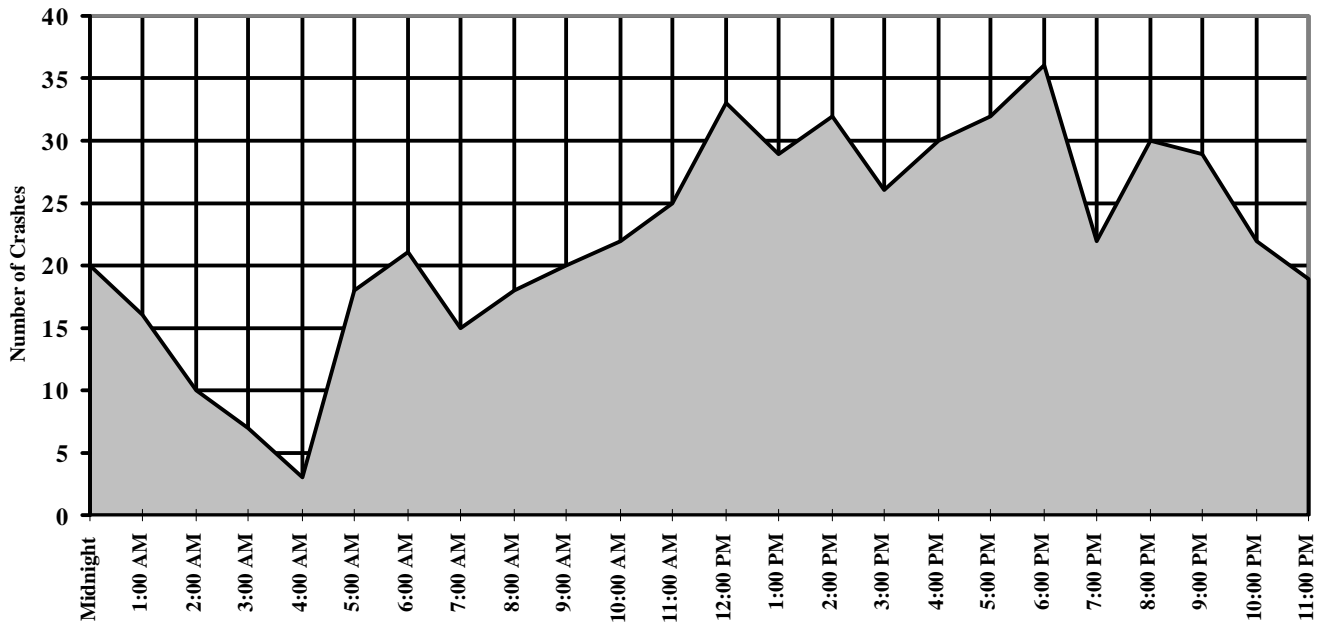


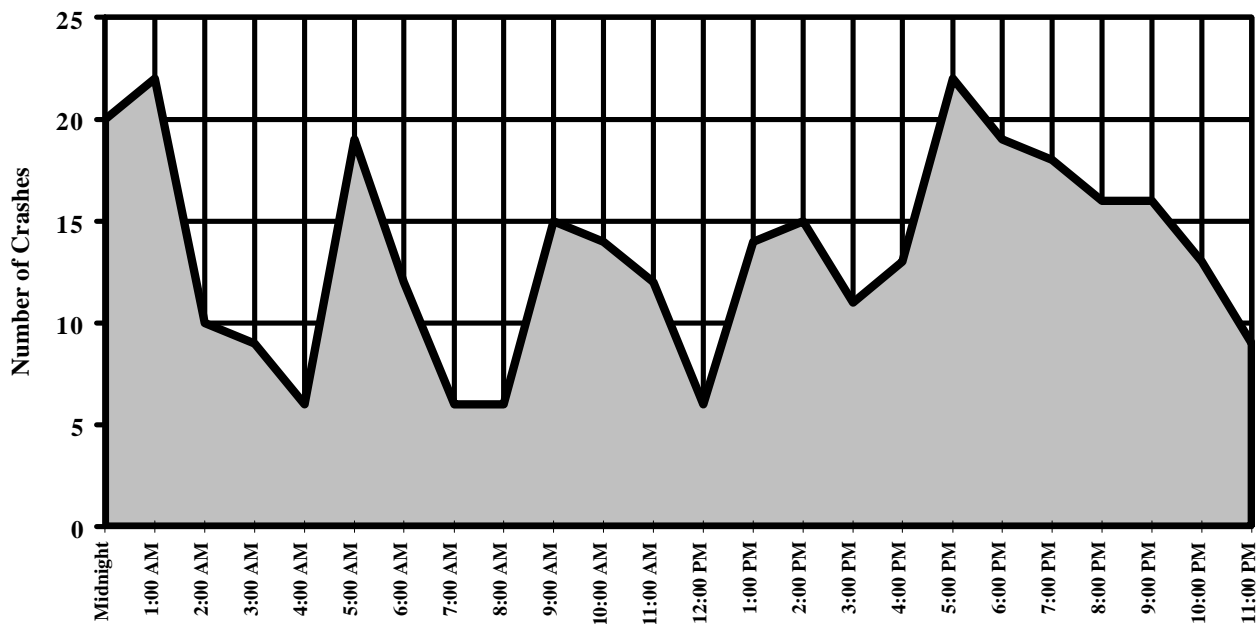
Figure 3-2
Crashes by Time of Day
Weekends



**Figure 3-3
Fatal Crashes by Time of Day
Weekdays**



**Figure 3-4
Fatal Crashes by Time of Day
Weekends**



Section 3: Crash Descriptions

Figure 3-5
Crashes by Day of Week

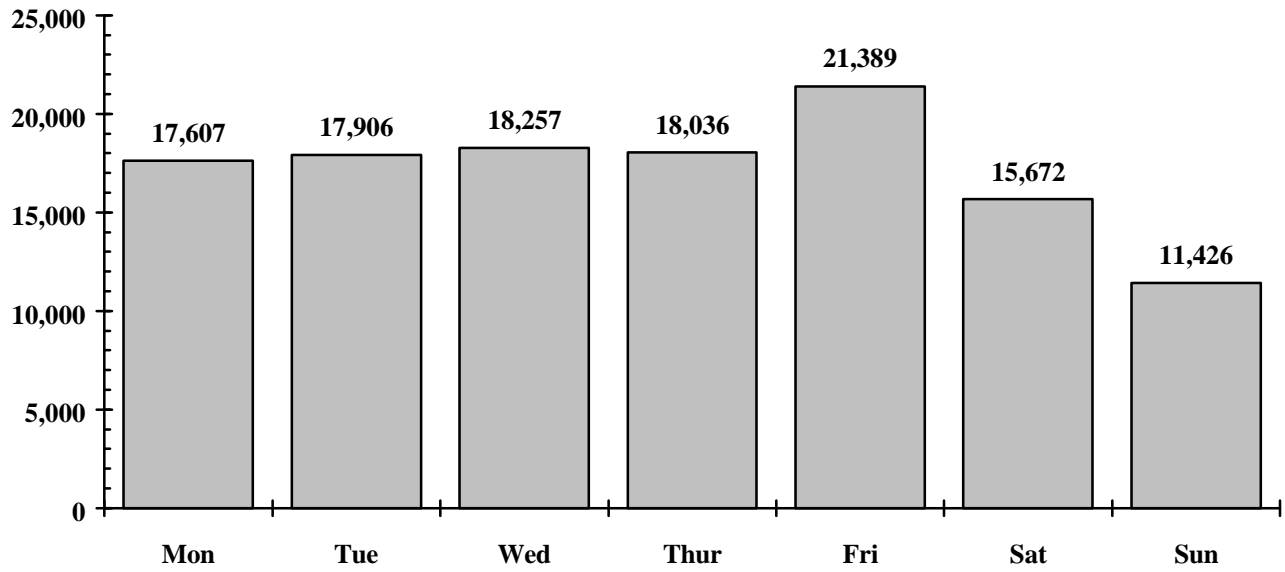
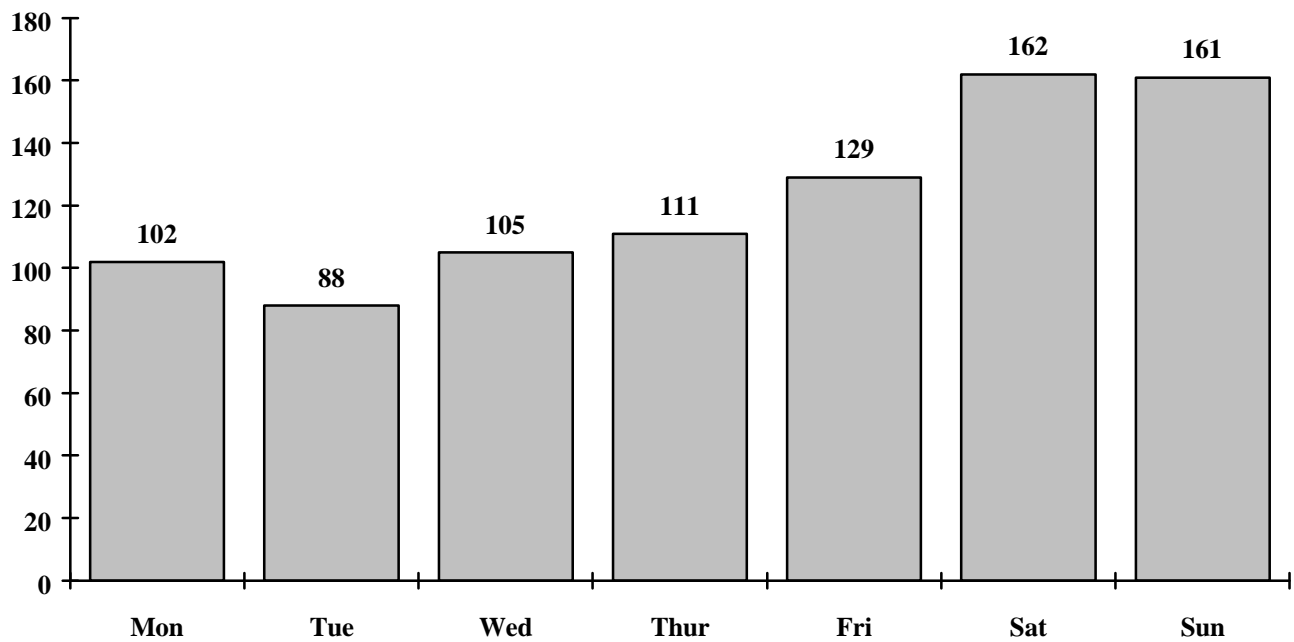
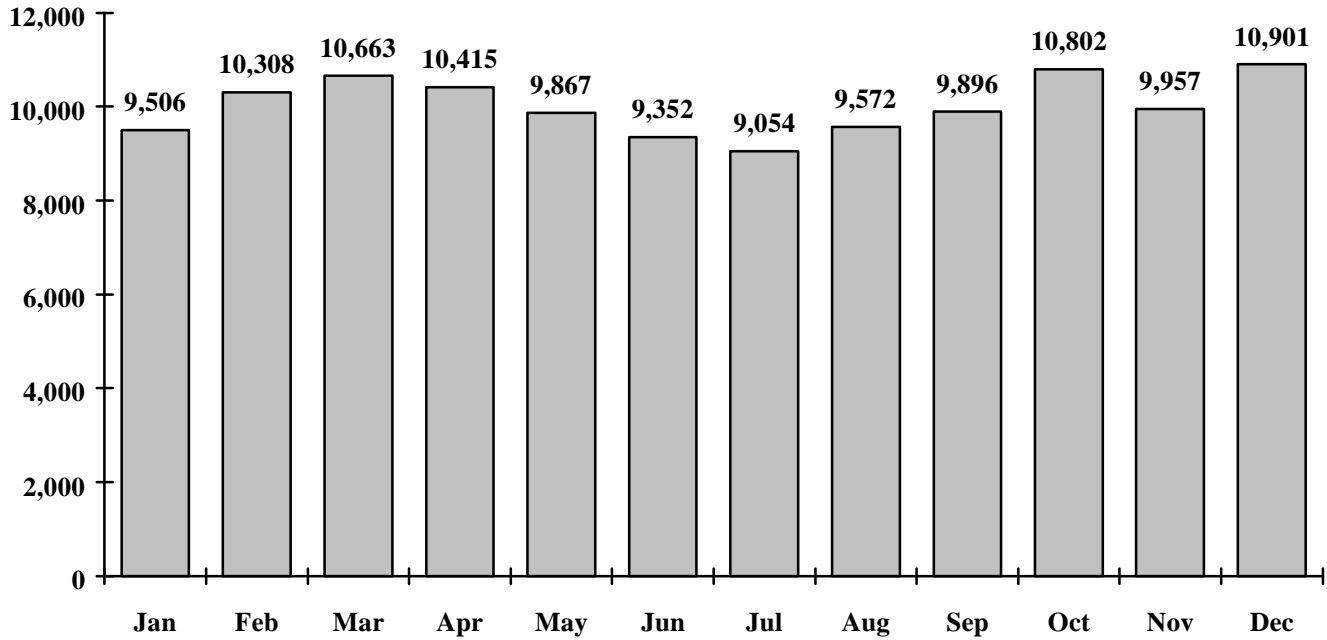


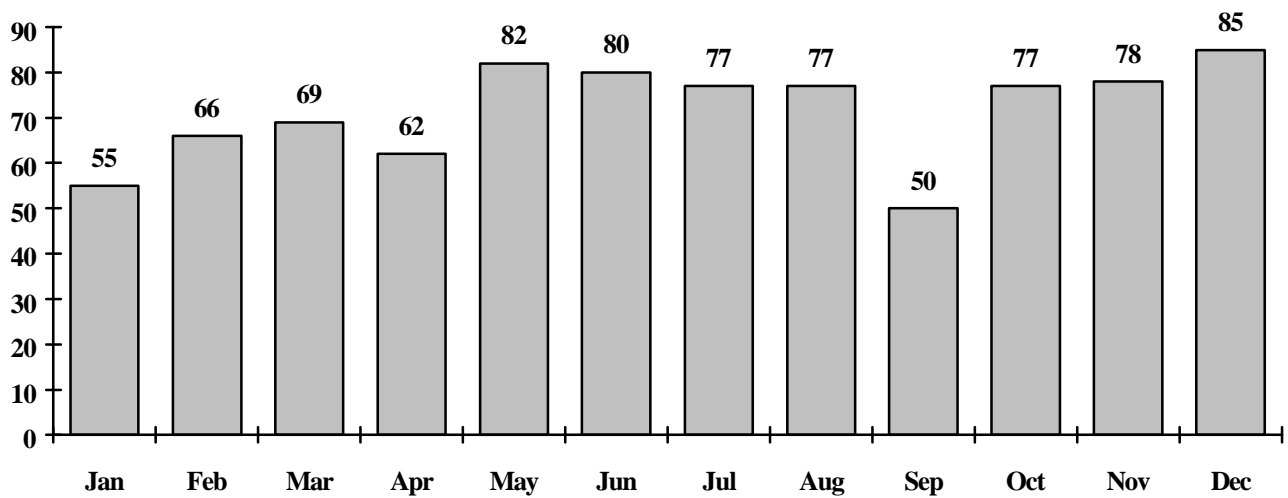
Figure 3-6
Fatal Crashes by Day of Week



**Figure 3-7
Crashes by Month**



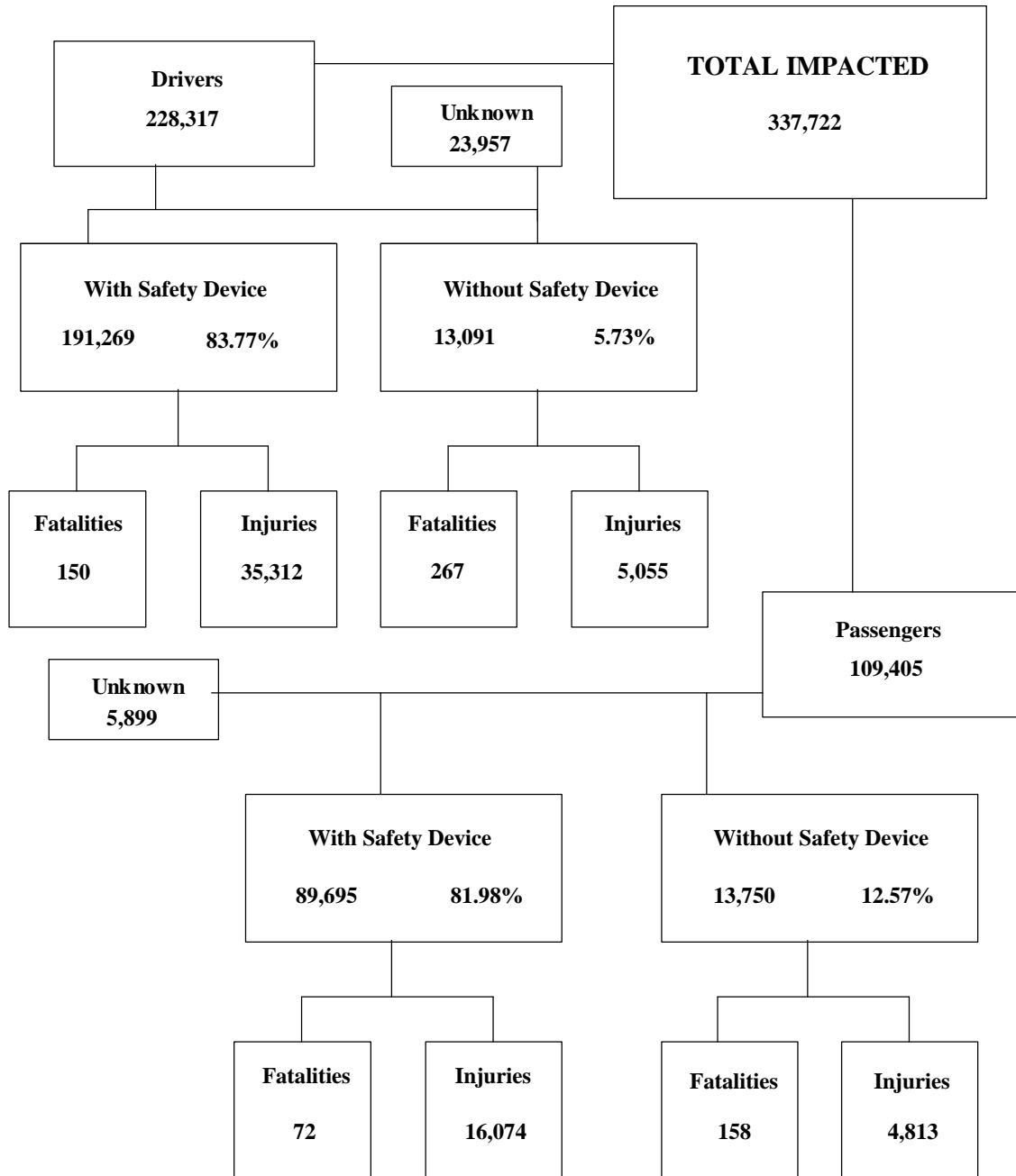
**Figure 3-8
Fatal Crashes by Month**



**Table 3-9
Crashes by Hour and Day of Week**

Hour Beginning	Total Crashes		Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday	
	All	Fatal	All	Fatal	All	Fatal	All	Fatal	All	Fatal	All	Fatal	All	Fatal	All	Fatal
Midnight	1,642	40	174	6	134	2	144	2	203	6	156	4	394	13	437	7
1:00	1,899	38	147	3	112	3	153	2	198	6	225	2	531	10	533	12
2:00	1,030	20	93	3	80	1	97	4	104	1	129	1	247	4	280	6
3:00	794	16	81	1	67	2	67	1	92	2	94	1	212	4	181	5
4:00	814	9	108	1	84	0	98	1	104	1	98	0	162	2	160	4
5:00	1,521	37	277	3	207	3	232	2	216	0	212	10	194	9	183	10
6:00	3,260	33	624	5	555	3	569	5	567	4	520	4	241	9	184	3
7:00	6,860	21	1,314	3	1,322	2	1,285	4	1,233	3	1,126	3	338	6	242	0
8:00	6,045	24	1,035	2	1,080	5	1,164	6	1,045	1	915	4	503	3	303	3
9:00	4,639	35	739	2	720	1	737	3	699	6	705	8	653	7	386	8
10:00	5,293	36	841	6	779	5	773	4	754	3	836	4	783	4	527	10
11:00	6,452	37	986	4	929	5	922	6	935	7	1,159	3	963	4	558	8
Noon	7,939	39	1,115	7	1,140	5	1,267	7	1,182	9	1,363	5	1,123	2	749	4
1:00	7,478	43	1,065	1	1,078	4	1,121	9	1,070	8	1,353	7	1,085	5	706	9
2:00	8,677	47	1,271	11	1,330	3	1,339	7	1,316	6	1,616	5	1,054	8	751	7
3:00	10,283	37	1,612	6	1,635	3	1,560	8	1,606	4	2,040	5	1,057	5	773	6
4:00	10,573	43	1,668	5	1,704	6	1,645	6	1,664	6	2,075	7	1,029	5	788	8
5:00	11,089	54	1,665	5	1,892	7	1,869	7	1,821	4	2,004	9	1,013	10	825	12
6:00	7,468	55	997	8	1,159	9	1,167	3	1,120	7	1,335	9	910	10	780	9
7:00	4,573	40	548	2	604	4	597	3	576	6	874	7	801	10	573	8
8:00	3,677	46	427	4	439	4	475	6	473	9	707	7	627	5	529	11
9:00	3,300	45	379	7	355	7	423	3	453	4	666	8	610	9	414	7
10:00	2,821	35	265	5	291	3	333	4	348	3	634	7	606	12	344	1
11:00	2,166	28	176	2	210	1	220	2	257	5	547	9	536	6	220	3
Not Reported	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	120,293	858	17,607	102	17,906	88	18,257	105	18,036	111	21,389	129	15,672	162	11,426	161

Section 4: Safety Devices



In this chart, "Unknown" represents incidents where the reporting officer could not discern whether a safety device was in use at the time of the crash. For this reason fatalities and injuries occurring where use was unknown are not included. Motorcycle operators are included in this chart under "Drivers." "Safety devices" refer to the use of helmets or safety belts depending on the mode of transportation. For a detailed analysis of motorcycle helmet use, see Section 8: Motorcycle Crashes.

Section 4: Safety Devices

Arizona law requires young children to be restrained when riding in a motor vehicle.

A.R.S. Title 28-907 states "...a person shall not operate a motor vehicle on the highways in this state when transporting a child who is under five years of age unless that child is properly secured in a child passenger restraint system."

**Table 4-1
Child Restraint Usage (less than five years old)**

Severity of Injury	Restraint Used	Percent of Restraint Used	No Restraint Used	Percent of No Restraint	Not Reported	Percent of Unknown
No injury	10,492	89.05%	769	69.53%	424	82.01%
Possible injury	817	6.93%	140	12.66%	42	8.12%
Injury	398	3.38%	185	16.73%	25	4.84%
Fatality	8	0.07%	7	0.63%	2	0.39%
Unknown	67	0.57%	5	0.45%	24	4.64%
Totals	11,782	100.00%	1106	100.00%	517	100.00%

Children in rear-facing child seats should not be placed in the front seat of cars equipped with passenger-side air bags. The impact of a deploying air bag striking a rear-facing child could result in injury to the child. NHTSA recommends that children 12 and under sit in the rear seat away from the force of a deploying air bag.

Arizona law requires the use of seat belts.

A.R.S. Title 28-909 states "...each front seat occupant of a motor vehicle which is manufactured for the model year 1972 and thereafter...shall have the lap and shoulder belt properly adjusted and fastened while the vehicle is in motion, or if only a lap belt is installed where the occupant is sitting, have the lap belt properly adjusted and fastened while the vehicle is in motion."

**Table 4-2
Driver Restraint Usage**

Severity of Injury	Restraint in Use	Percent of Restraint Used	No Restraint Used	Percent of No Restraint	Not Reported	Percent of Unknown
No injury	154,658	81.11%	7,528	57.51%	9,624	40.17%
Possible injury	22,794	11.95%	1,883	14.38%	1,320	5.51%
Injury	12,032	6.31%	3,172	24.23%	1,781	7.43%
Fatality	141	0.07%	267	2.04%	65	0.27%
Unknown	1,061	0.56%	241	1.84%	11,167	46.61%
Total	190,686	100.00%	13,091	100.00%	23,957	100.00%

Excludes all motorcycle, motor scooter, moped, and golf cart operators.

In Arizona, 83.8% of all drivers involved in crashes in 1998 were reportedly wearing their safety belts. Of those drivers fatally injured, 36.0% were wearing seat belts.

**Table 4-3
Front-Seat Passenger Restraint Usage**

Severity of Injury	Restraint in Use	Percent of Restraint Used	No Restraint Used	Percent of No Restraint	Not Reported	Percent of Unknown
No injury	43,541	69.71%	3,952	49.66%	2,468	63.28%
Possible injury	7,381	11.82%	1,142	14.35%	384	9.85%
Injury	11,266	18.04%	2,705	33.99%	894	22.92%
Fatality	50	0.08%	108	1.36%	15	0.38%
Unknown	223	0.36%	51	0.64%	139	3.56%
Total	62,461	100.00%	7,958	100.00%	3,900	100.00%

Section 4: Safety Devices

NHTSA estimates that nationwide, seatbelt usage is approximately 69%.

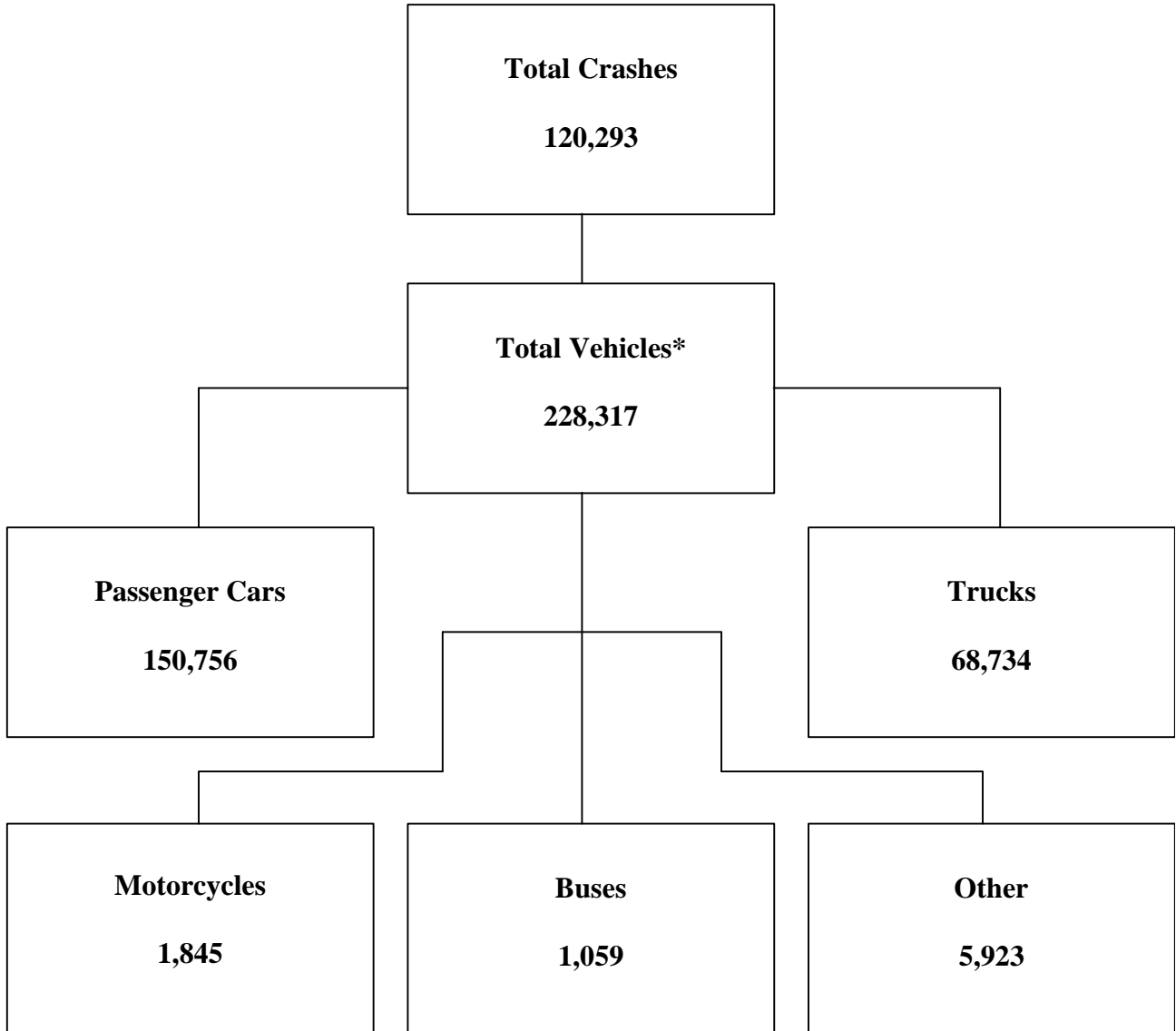
Seat belt usage in the United States lags far behind most industrialized countries that have strict seat belt use laws. For example, Canada, Australia, the United Kingdom, Germany and Sweden have usage rates of 90% or better.

**Table 4-4
Rear-Seat Passenger Restraint Usage**

Severity of Injury	Restraint Used	Percent of Restraint Used	No Restraint Used	Percent of No Restraint	Not Reported	Percent of Unknown
No injury	19,139	75.90%	3,980	59.89%	1,435	66.86%
Possible injury	2,386	9.46%	817	12.29%	219	10.21%
Injury	3,593	14.25%	1,783	26.83%	421	19.62%
Fatality	14	0.06%	43	0.65%	9	0.42%
Unknown	85	0.34%	22	0.34%	62	2.89%
Total	25,217	100.00%	6,645	100.00%	2,146	100.00%

Across the nation, 10,000 lives were saved in 1998 by the use of safety belts.

**Section 5:
Motor Vehicle and Driver Characteristics**



*Includes driverless or illegally parked

Section 5: Motor Vehicle and Driver Characteristics

**Table 5-1
Arizona Motor Vehicle Registrations**

Privately Owned Vehicles	3,270,503
Commercial Vehicles	344,925
Buses and Taxis	3,348
Motorcycles	64,711
Mopeds	404
Total	3,683,891

*Total does not include duplicate registrations.

Data provided by, and inquiries should be directed to, Motor Vehicles Division.

**Table 5-2
Motor Vehicle Accident Involvement by Vehicle Type**

Motor Vehicle Type	Total	Percent	Fatal	Injury	PDOs
Passenger Car (Includes cars with trailer)	150,756	66.03%	667	57,802	92,287
Pickup Truck (Incl. Panel & Mini Bus)	61,379	26.88%	361	21,583	39,435
Pickup Truck With Camper	820	0.36%	17	299	504
Other Vehicle With Camper	1	0%	0	0	1
Truck or Truck Tractor (Excl. P/U)	55	0.02%	0	16	39
Truck Tractor and Semi-Trailer	3,604	1.58%	77	942	2,585
Other Truck Combination	2,875	1.26%	38	830	2,007
Farm Tractor and/or Farm Equipment	47	0.02%	1	18	28
Taxicab	123	0.05%	1	52	70
Bus	630	0.28%	3	156	471
School Bus	429	0.19%	0	118	311
Motorcycle	1,845	0.81%	68	1,484	293
Motor Scooter or Motor Bicycle	12	0.01%	0	12	0
Moped	9	0%	0	6	3
Recreational Vehicle	1,325	0.58%	16	501	808
Motor Home or House Car	365	0.16%	11	80	274
Vehicle With Special Controls (Dual, Etc.)	10	0%	0	2	8
Emergency Veh. (Inc. Privately Owned)	97	0.04%	2	29	66
Military Vehicles	2	0%	0	0	2
Other Types Of Vehicles	188	0.08%	4	81	103
Vehicle Type Unknown	3,745	1.64%	39	829	2,874
TOTALS	228,317	100.00%	1,305	84,840	142,169

**Table 5-3
Hit and Run Drivers**

Hit And Run?	Number of Crashes				Number of Persons	
	Total	Fatal	Injury	PDOs	Killed	Injured
Yes	12,058	37	3,107	8,914	39	4,361
No	108,235	821	40,241	67,173	941	66,467
TOTALS	120,293	858	43,348	76,087	980	70,828

1998 Arizona Crash Facts Summary

Table 5-4
Gender of Drivers Involved in Crashes

Gender of Driver	Total		Fatal		Injury	
	Total	Percent	Fatal	Percent	Injury	Percent
Male	135,145	59.19%	885	67.82%	49,240	58.04%
Female	85,288	37.36%	363	27.82%	33,961	40.03%
Not Reported	7,884	3.45%	57	4.36%	1,642	1.93%
TOTALS	228,317	100.00%	1,305	100.00%	84,843	100.00%

Table 5-5
Residence of Drivers Involved in Crashes

Residence of Driver	Total		Fatal		Injury		PDOs	
	Total	Percent	Fatal	Percent	Injury	Percent	PDOs	Percent
Arizona	187,590	82.17%	950	72.80%	71,084	83.79%	115,556	81.29%
Non-Resident	19,763	8.65%	207	15.86%	7,043	8.30%	12,513	8.80%
Not Reported	20,964	9.18%	148	11.34%	6,716	7.91%	14,100	9.91%
TOTALS	228,317	100.00%	1,305	100.00%	84,843	100.00%	142,169	100.00%

Table 5-6
Drivers and Occupants Killed and Injured by Vehicle Type

Type of Motor Vehicle	Drivers		Occupants	
	Killed	Injured	Killed	Injured
Passenger Car (Includes Cars With Trailer)	267	31,264	199	17,338
Pickup Truck (Incl. Panel & Mini Bus)	103	9,583	85	5,398
Pickup Truck With Camper	7	156	6	84
Other Vehicle With Camper	0	0	0	0
Truck or Truck Tractor (Excl. P/U)	0	7	0	0
Truck Tractor and Semi-Trailer	7	256	2	70
Other Truck Combination	8	271	1	136
Farm Tractor and/or Farm Equipment	0	7	0	1
Taxicab	0	26	0	16
Bus	0	30	0	179
School Bus	0	22	0	137
Motorcycle	61	1,438	2	161
Motor Scooter or Motor Bicycle	0	12	0	1
Moped	0	6	0	0
Recreational Vehicle	6	239	4	167
Motor Home or House Car	6	29	4	31
Vehicle With Special Controls (Dual, Etc.)	0	1	0	0
Emergency Veh. (Inc. Privately Owned)	1	17	0	5
Military Vehicles	0	0	0	0
Other Types Of Vehicles	2	51	0	15
Vehicle Type Not Reported	14	53	11	54
TOTALS	482	43,468	314	23,793

Section 5: Motor Vehicle and Driver Characteristics

**Table 5-7
Licensed Drivers in Arizona by Age**

Driver Age Group	Male Number	Percent	Female Number	Percent	Total Number	Percent	Cumulative Percent
15	3,810	0.21%	3,502	0.20%	7,312	0.20%	0.20%
16	27,784	1.50%	24,976	1.43%	52,760	1.46%	1.66%
17	36,418	1.97%	33,304	1.91%	69,722	1.94%	3.60%
18	40,483	2.19%	37,960	2.17%	78,443	2.18%	5.78%
19	42,697	2.31%	38,950	2.23%	81,647	2.27%	8.05%
20	43,066	2.33%	39,564	2.27%	82,630	2.30%	10.35%
21	41,002	2.21%	36,951	2.12%	77,953	2.17%	12.52%
22	33,613	1.82%	29,669	1.70%	63,282	1.76%	14.28%
23	32,678	1.76%	28,111	1.61%	60,789	1.69%	15.97%
24	33,445	1.81%	28,517	1.63%	61,962	1.72%	17.69%
25-34	358,373	19.35%	312,543	17.89%	670,916	18.65%	36.34%
35-44	384,227	20.75%	364,325	20.86%	748,552	20.80%	57.14%
45-54	311,942	16.85%	303,943	17.40%	615,885	17.12%	74.26%
55-64	202,087	10.94%	201,145	11.52%	403,232	11.21%	85.47%
65-74	151,166	8.16%	150,551	8.62%	301,717	8.38%	93.85%
75 & Older	108,969	5.88%	112,554	6.44%	221,523	6.16%	100.00%
TOTALS	1,851,760	100.00%	1,746,565	100.00%	3,598,325	100.00%	100.00%

**Table 5-8
Driver Involvement by Age**

Driver Age Group	Total	Percent	Fatal	Percent	Injury	Percent	PDOs	Percent
15 & Younger	736	0.32%	2	0.15%	292	0.34%	442	0.31%
16	4,315	1.89%	22	1.69%	1,655	1.95%	2,638	1.86%
17	6,274	2.75%	26	1.99%	2,463	2.90%	3,785	2.66%
18	7,515	3.29%	47	3.60%	2,927	3.45%	4,541	3.19%
19	7,209	3.16%	37	2.84%	2,808	3.31%	4,364	3.07%
20	6,682	2.93%	31	2.38%	2,599	3.06%	4,052	2.85%
21	6,539	2.86%	41	3.14%	2,527	2.98%	3,971	2.79%
22	6,185	2.71%	29	2.22%	2,396	2.82%	3,760	2.64%
23	6,010	2.63%	29	2.22%	2,293	2.70%	3,688	2.59%
24	5,751	2.52%	30	2.30%	2,121	2.50%	3,600	2.53%
25-34	51,919	22.74%	244	18.70%	19,580	23.08%	32,095	22.58%
35-44	43,352	18.99%	265	20.31%	16,233	19.13%	26,854	18.89%
45-54	28,961	12.68%	170	13.03%	10,890	12.84%	17,901	12.59%
55-64	15,786	6.91%	111	8.51%	6,021	7.10%	9,654	6.79%
65-74	10,394	4.55%	89	6.82%	3,914	4.61%	6,391	4.50%
75 & Older	12,733	5.58%	93	7.13%	4,125	4.86%	8,515	5.99%
Not Reported	7,956	3.48%	39	2.99%	1,999	2.36%	5,918	4.16%
TOTALS	228,317	100.00%	1,305	100.00%	84,843	100.00%	142,169	100.00%

1998 Arizona Crash Facts Summary

**Table 5-9
Driver Errors**

Contributing Circumstances	Total Drivers	Percent of Total Drivers	Fatal Drivers	Percent of Fatal Drivers	Injury Drivers	Percent of Injury Drivers	PDO Drivers	Percent of PDO Drivers
Exceeded Lawful Speed	1,186	0.52%	71	5.44%	572	0.67%	543	0.38%
Speeding *	45,158	19.78%	310	23.75%	17,015	20.05%	27,833	19.58%
Failed to Yield	26,507	11.61%	94	7.20%	11,034	13.01%	15,379	10.81%
Ran Stop Sign	1,414	0.62%	20	1.53%	721	0.85%	673	0.47%
Disregarded Signal	5,118	2.24%	39	2.99%	2,710	3.19%	2,369	1.67%
Opposing Lane	1,326	0.58%	60	4.60%	546	0.64%	720	0.51%
Followed too Closely	3,497	1.53%	1	0.08%	1,108	1.31%	2,388	1.68%
Improper Turn	3,805	1.67%	3	0.23%	961	1.13%	2,841	2.00%
Driver Inattention	12,161	5.33%	69	5.29%	3,499	4.12%	8,593	6.04%
Other Improper Driving	3,583	1.57%	15	1.15%	1,016	1.20%	2,552	1.80%
Faulty Equipment	335	0.15%	6	0.46%	110	0.13%	219	0.15%
Unsafe Lane Change	5,587	2.45%	5	0.38%	970	1.14%	4,612	3.24%
Unsafe Passing	5,608	2.46%	55	4.21%	1,476	1.74%	4,077	2.87%
No Improper Driving	106,477	46.64%	490	37.55%	41,189	48.55%	64,789	45.57%
Not stated	6,555	2.87%	67	5.13%	1,916	2.26%	4,572	3.22%
TOTALS	228,317	100.0%	1,305	100.0%	84,843	100.0%	142,169	100.0%

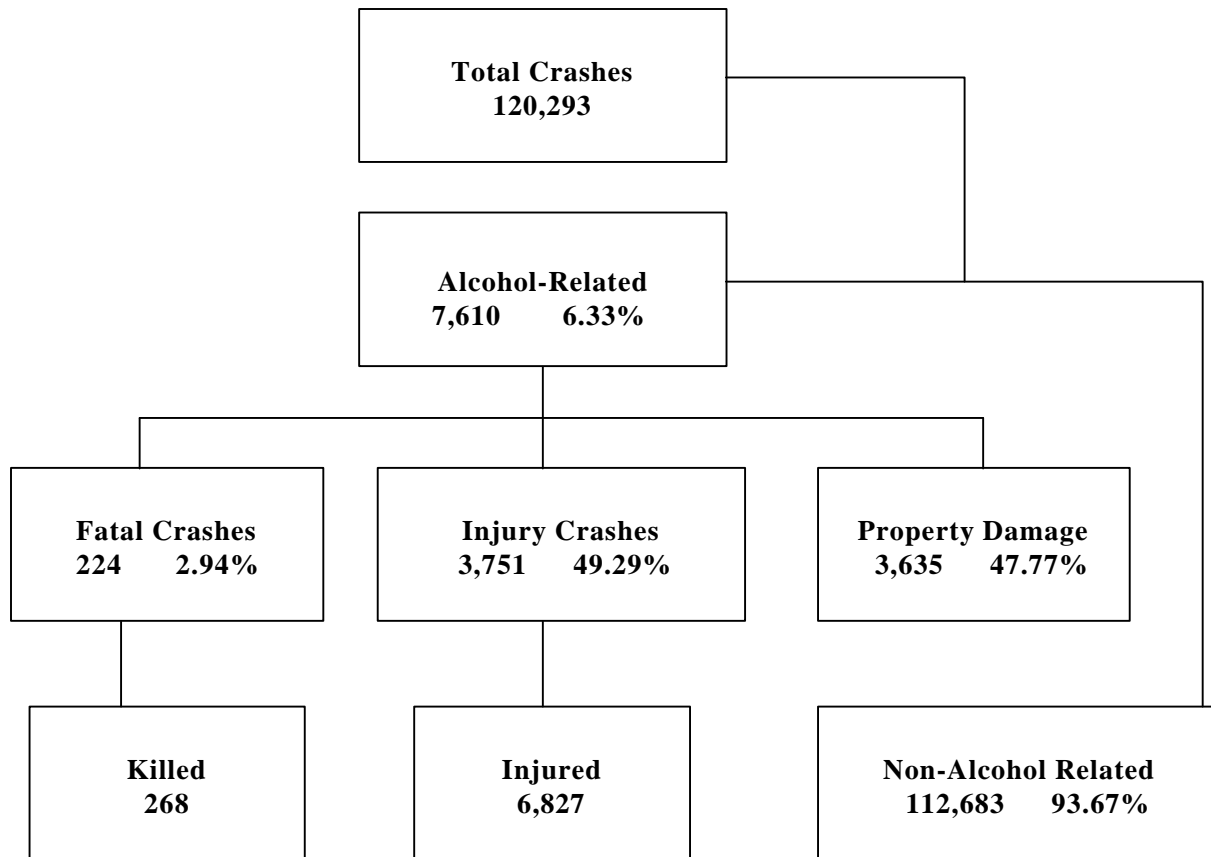
* Speeding too fast for conditions

**Table 5-10
Driver Physical Condition**

Driver Condition	Total Drivers	% of Total Drivers	Fatal Drivers	% of Fatal Drivers	Injury Drivers	% of Injury Drivers	PDO Drivers	% of PDO Drivers
No Apparent Defects	200,354	87.75%	735	56.32%	74,621	87.95%	124,998	87.92%
Impaired Had Been Drinking	7,719	3.38%	229	17.55%	3,824	4.51%	3,666	2.58%
Other Bodily Defects	520	0.23%	5	0.38%	246	0.29%	269	0.49%
Ill, Ability Influenced	379	0.17%	4	0.31%	191	0.23%	184	0.13%
Sleepy, Fatigued	1,547	0.68%	49	3.75%	771	0.91%	727	0.51%
Under Influence Of Narcotic Drug	410	0.18%	7	0.54%	208	0.25%	195	0.14%
Not Reported/Unknown	17,388	7.62%	276	21.15%	4,979	5.87%	12,130	8.53%
TOTALS	228,317	100.0%	1,305	100.0%	84,840	100.0%	142,169	100.0%

Section 6: Alcohol-Related Crashes

**Section 6:
Alcohol Related Crashes**



The statistics in the Alcohol-Related section represent those crashes where the investigating officer indicated that a driver had been drinking an alcoholic beverage and may or may not be substantiated by a blood or breath test. No assumption is to be made that the person was legally intoxicated (blood alcohol content of 0.1% or higher) at the time the crash took place.

Economic Loss due to Alcohol-Related Crashes in Arizona for 1998	
Fatalities	\$262,640,000.
Injuries	\$122,202,000.
Property Damage	\$ 23,264,000.
Total	\$408,106,000.

1998 Arizona Crash Facts Summary

Table 6-1
1993 to 1998 - Alcohol-Related Crashes

Year	Alcohol-Related Crashes	Percent of all Crashes	Victims Killed	Percent of all Fatalities
1993	7,698	7.86%	258	32.21%
1994	7,620	7.14%	242	26.71%
1995	7,947	6.98%	261	25.17%
1996	7,748	6.86%	272	27.34%
1997	7,348	6.44%	249	26.24%
1998	7,610	6.33%	268	27.35%

Table 6-2
Manner of Collision in Alcohol-Related Crashes

Manner Of Collision	Number of Crashes					
	Total	Percent of all Crashes	Fatal	Percent of Fatal Crashes	Injury	Percent of Injury Crashes
Single Vehicle	3,241	42.59%	124	55.36%	1,543	41.14%
Head On	116	1.52%	27	12.05%	69	1.84%
Rear End	1,822	23.94%	9	4.02%	920	24.53%
Sideswipe Opposite Direction	178	2.34%	10	4.46%	92	2.45%
Sideswipe Same Direction	394	5.18%	1	0.45%	118	3.15%
Left Turn	589	7.74%	10	4.46%	385	10.26%
Other Angle	961	12.63%	30	13.39%	554	14.77%
Backing Into	75	0.99%	0	0%	10	0.27%
U Turn	48	0.63%	3	1.34%	28	0.75%
Other	186	2.44%	10	4.46%	32	0.85%
TOTALS	7,610	100.00%	224	100.00%	3,751	100.00%

Table 6-3
Alcohol-Related Crashes by First Harmful Event

First Harmful Event	Total	Number of Crashes			Number of Persons	
		Fatal	Injury	PDO	Killed	Injured
Overturning	408	41	281	86	43	474
Pedestrian	49	18	31	0	18	42
Motor Veh. In Transit	4,250	91	2,205	1,954	125	4,650
Motor Veh. Other Roadway	1	0	1	0	0	1
Pedalcyclist	27	6	18	3	6	23
Animal	12	2	6	4	3	12
Fixed Object	2,246	57	983	1,206	62	1,330
Other Object	449	3	138	308	4	181
Miscellaneous	168	6	88	74	7	114
TOTALS	7,610	224	3,751	3,635	268	6,827

Section 6: Alcohol-Related Crashes

**Table 6-4
Alcohol-Related Crashes by Vehicle Type**

Motor Vehicle Type	Total Number of Vehicles	Percent	Number of Vehicles		
			Fatal	Injury	PDO
Passenger Car	5,013	64.94%	125	2,475	2,413
Motor Home or House Car	7	0.09%	1	3	3
Pickup Truck (Incl. Panel & Mini Bus)	2,393	31.00%	79	1,156	1,158
Truck Tractor and Semi-Trailer	7	0.09%	0	3	4
Other Truck Combination	52	0.67%	1	23	28
RV (all wheel drive, dune buggy)	53	0.69%	4	24	25
Farm Tractor and/or Farm Equipment	1	0.01%	1	0	0
Taxicab	3	0.04%	0	2	1
Bus	0	0%	0	0	0
School Bus	1	0.01%	0	1	0
Motorcycle	157	2.03%	16	123	18
Motor Scooter or Motor Bicycle	2	0.02%	0	2	0
Other Special Vehicles	2	0.02%	0	2	0
Vehicle Type Not Reported	28	0.36%	2	10	16
TOTALS	7,719	100.00	229	3,824	3,666

**Table 6-5
Light Conditions - Alcohol-Related Crashes**

Light Condition	Number of Crashes			
	Total	Fatal	Injury	PDO
Daylight	2,193	69	1,058	1,066
Dawn or Dusk	333	11	157	165
Darkness	5,083	144	2,535	2,404
Not Reported	1	0	1	0
TOTALS	7,610	224	3,751	3,635

**Table 6-6
Road Surface Conditions - Alcohol-Related Crashes**

	Number of Crashes			
	Total	Fatal	Injury	PDO
Dry	6,395	178	3,148	3,069
Wet	359	10	173	176
Snowy or Icy	33	2	17	14
Other	803	27	403	373
Not Reported	20	7	10	3
TOTALS	7,610	224	3,751	3,635

Table 6-7
Age of Driver - Alcohol-Related Crashes

Driver Age	Total Drivers	Percent of all Drivers	Drivers In Fatal Crashes	Percent of all Fatal Drivers	Drivers In Injury Crashes	Percent of all Injury Drivers
15	29	0.38%	0	0%	13	0.34%
16	47	0.61%	1	0.44%	33	0.86%
17	95	1.23%	5	2.18%	52	1.36%
18	209	2.71%	7	3.06%	103	2.69%
19	212	2.75%	8	3.49%	115	3.01%
20	244	3.16%	8	3.49%	124	3.24%
21	334	4.33%	18	7.86%	148	3.87%
22	313	4.05%	9	3.93%	162	4.24%
23	292	3.78%	5	2.18%	152	3.97%
24	323	4.18%	8	3.49%	174	4.55%
25-34	2,322	30.08%	67	29.26%	1,169	30.57%
35-44	1,769	22.92%	52	22.71%	862	22.54%
45-54	804	10.42%	24	10.48%	403	10.54%
55-64	317	4.11%	6	2.62%	155	4.05%
65-74	161	2.09%	6	2.62%	81	2.12%
75 & Older	134	1.74%	2	0.87%	41	1.07%
Not Reported	114	1.47%	3	1.31%	37	0.97%
TOTALS	7,719	100.00%	229	100.00%	3,824	100.00%

The National Highway Traffic Safety Administration estimates that 38% of all fatal U.S. crashes involved alcohol. According to State records, alcohol was involved in 26.1% of the fatal crashes in Arizona during 1998.

Table 6-8
Driver Gender - Alcohol-Related Crashes

Driver Gender	Total Drivers	Percent of All Drivers	Drivers In Fatal Crashes	Percent of Fatal Drivers	Drivers in Injury Crashes	Percent of Injury Drivers
Male	6,238	80.81%	195	85.15%	3,070	80.28%
Female	1,402	18.16%	33	14.41%	733	19.17%
Not Reported	79	1.02%	1	0.44%	21	0.55%
TOTALS	7,719	100.00%	229	100.00%	3,824	100.00%

Section 6: Alcohol-Related Crashes

Table 6-9
Safety Restraints - Drinking Drivers

Drivers	Number of Drinking Drivers				
	No Injury	Possible Injury	Non-Incapacitating Injury	Incapacitating Injury	Fatal
Restraint Used	2,869	437	438	172	10
No restraint Used	704	227	450	307	77
Restraint Use Unknown	1,229	175	245	142	17
TOTALS	4,802	839	1,133	621	104

Table 6-10
Persons Killed and Injured in Alcohol-Related Crashes

Victims Age	Total Killed			Total Injured			Sex Unk.
	Male	Female		Male	Female		
0 - 4	5	3	2	133	62	71	0
5 - 9	5	5	0	160	72	88	0
10 - 14	3	1	2	193	89	104	0
15 - 19	26	19	7	922	556	365	1
20 - 24	47	39	8	1,278	912	366	0
25 - 34	56	47	9	1,712	1,158	552	2
35 - 44	60	39	21	1,207	751	456	0
45 - 54	32	22	10	644	389	255	0
55 - 64	14	9	5	286	168	118	0
65 - 74	13	8	5	137	84	52	1
75 & Older	6	2	4	68	43	25	0
Not Reported	1	1	0	87	50	35	2
TOTALS	268	5	3	6,827	4,334	2487	6

Table 6-11
When Alcohol-Related Crashes Occurred in 1998

	Total	Weekday**	Weekend
Daytime***	2,090	1,208	882
Nighttime	5,520	2,135	3,385
Total	7,610	3,343	4,267

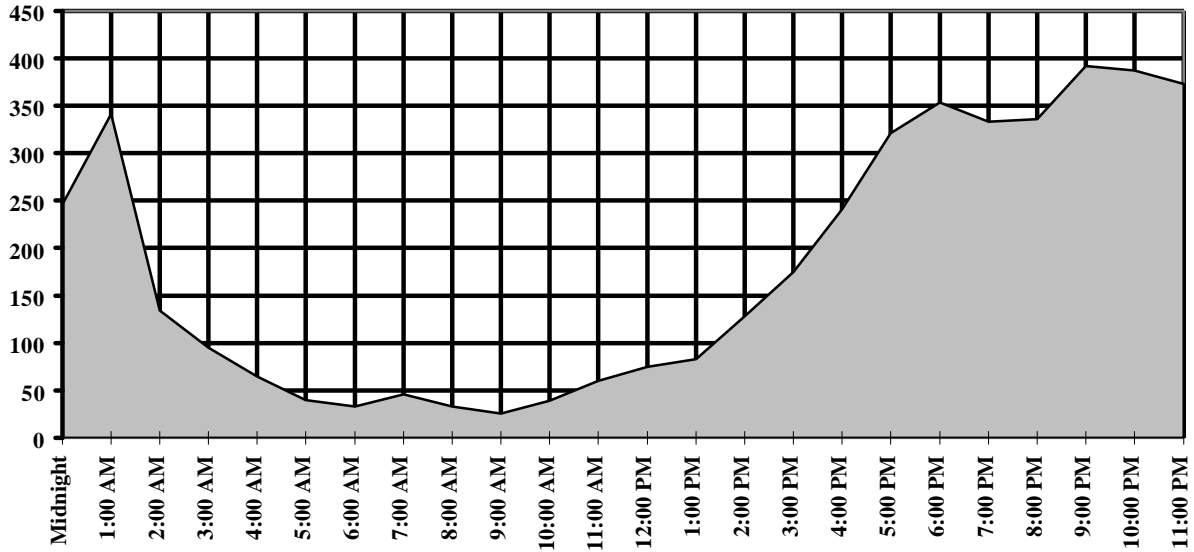
**Weekend begins at 6:00 p.m. on Friday and continues through 6:00 a.m. Monday. All other times and days are considered Weekdays.

***Daytime refers to the hours between 6:00 a.m. and 6:00 p.m.

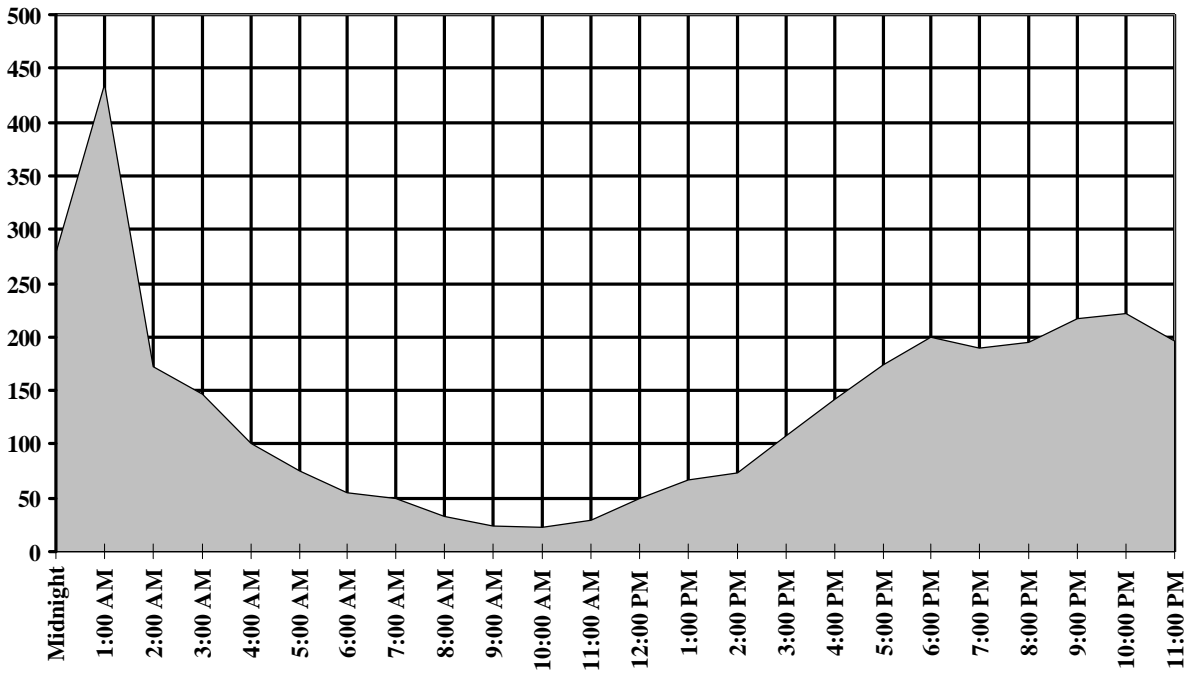
According to the NHTSA, about 3 in every 10 Americans will be involved in an alcohol-related crash as some time in their lives.

Section 6: Alcohol-Related Crashes

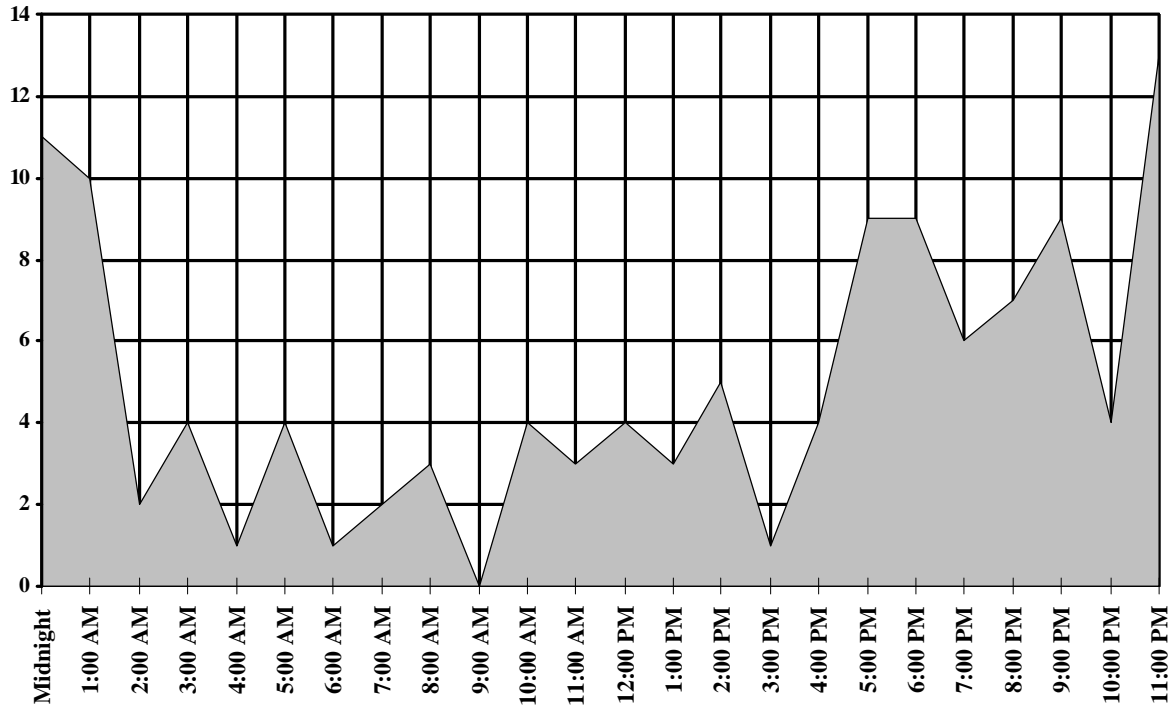
Figures 6-1 and 6-2
Alcohol-Related Crashes
Weekdays



Weekends



Figures 6-3 and 6-4
Fatal Alcohol-Related Crashes
Weekdays



Weekends

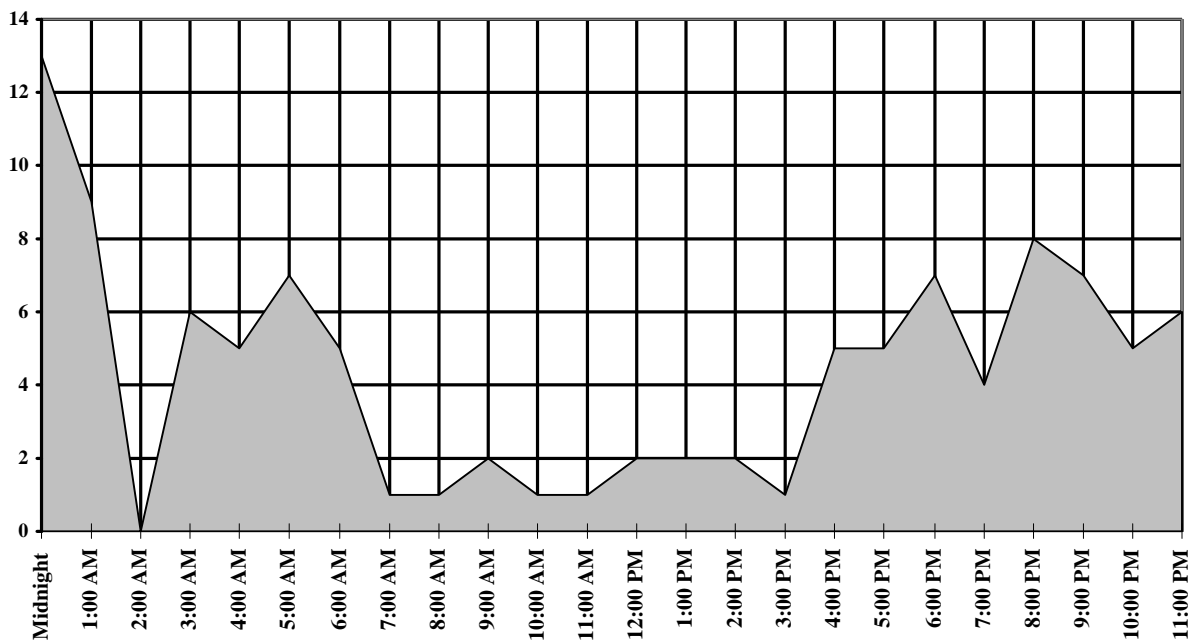
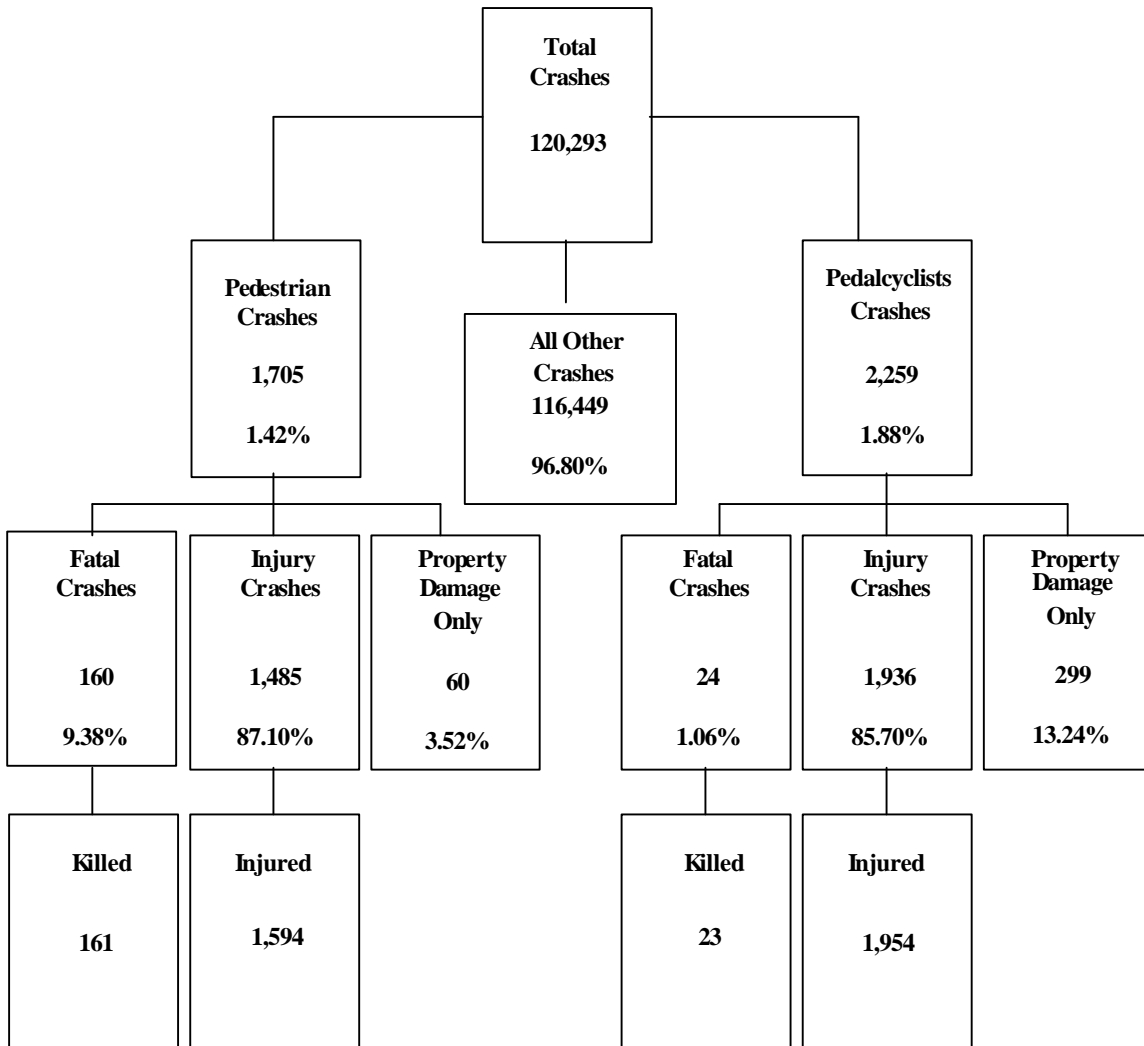


Table 6-13
Alcohol-Related Crashes
Injury Severity by Hour and Day of Week

Hour Beginning	Total Crashes		Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday	
	All	Fatal	All	Fatal	All	Fatal	All	Fatal	All	Fatal	All	Fatal	All	Fatal	All	Fatal
Midnight	524	24	54	3	30	0	37	1	72	5	53	2	149	8	129	5
1:00	776	19	59	2	49	3	57	1	84	3	92	1	234	5	201	4
2:00	307	2	17	0	20	0	21	2	38	0	38	0	86	0	87	0
3:00	241	10	15	0	18	2	11	1	21	0	30	1	81	3	65	3
4:00	165	6	15	0	7	0	7	0	20	1	16	0	50	2	50	3
5:00	115	11	6	1	4	0	6	0	8	0	16	3	30	4	45	3
6:00	88	6	8	0	6	0	2	0	8	0	9	1	33	3	22	2
7:00	95	3	7	0	7	0	7	0	8	0	17	2	19	1	30	0
8:00	65	4	4	0	4	2	5	1	13	0	7	0	19	0	13	1
9:00	58	2	10	0	5	0	5	0	11	0	3	0	12	1	12	1
10:00	61	5	10	1	7	1	7	1	5	0	10	1	16	0	6	1
11:00	89	4	15	1	6	1	9	0	10	0	20	1	15	0	14	1
Noon	124	6	16	1	16	0	17	0	15	2	11	1	28	1	21	1
1:00	149	5	15	0	16	0	14	1	20	2	18	0	43	2	23	0
2:00	201	7	25	4	22	0	29	0	28	1	24	0	42	1	31	1
3:00	282	2	33	0	31	1	35	0	31	0	45	0	53	0	54	1
4:00	383	9	45	1	43	1	37	0	41	0	75	2	84	2	58	3
5:00	495	14	54	1	56	3	45	2	65	0	101	3	93	1	81	4
6:00	553	16	46	1	71	2	49	2	72	2	115	2	102	4	98	3
7:00	522	10	55	0	64	2	53	0	61	1	100	3	109	3	80	1
8:00	530	15	56	2	54	1	47	2	56	0	123	2	93	2	101	6
9:00	609	16	49	1	59	3	61	0	74	3	149	2	126	4	91	3
10:00	608	9	49	1	54	0	61	0	70	1	153	2	144	4	77	1
11:00	570	19	35	1	51	1	60	1	73	2	154	8	145	4	52	2
Not Reported	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	7,610	224	698	21	700	23	682	15	904	23	1,379	37	1,806	55	1,441	50

**Section 7:
Pedestrian and Pedalcyclist Crashes**



Section 7: Pedestrian and Pedalcyclist Crashes

**Table 7-1
Pedestrians By Age and Gender**

Age Group	Persons Killed			Persons Injured			
	Total	Male	Female	Total	Male	Female	Not Reported
0-4	11	6	5	75	50	25	0
5-9	3	2	1	165	106	59	0
10-14	0	0	0	187	109	78	0
15-19	7	5	2	177	91	86	0
20-24	12	10	2	120	76	44	0
25-34	32	25	7	215	140	75	0
35-44	35	25	10	222	152	70	0
45-54	20	19	1	164	110	54	0
55-64	11	8	3	84	50	34	0
65-74	13	7	6	69	39	30	0
75 & Older	14	8	6	73	41	32	0
Not Reported	3	2	1	43	25	17	1
Total	161	117	44	1,594	989	604	1

Nationally, on average, a pedestrian is killed in a motor vehicle crash every 101 minutes, and one is injured every 8 minutes.

**Table 7-2
Pedestrian Crashes**

Statewide	Total	Urban	Rural
Number of Crashes	1,705	1,508	197
Persons Killed	161	93	68
Persons Injured	1,594	1,362	152
Property Damage Only	61	56	5

**Table 7-3
Pedestrian Crash History**

Year	Number of Pedestrians	
	Fatal	Injury
1989	130	1,332
1990	137	1,444
1991	121	1,369
1992	141	1,420
1993	140	1,445
1994	151	1,593
1995	179	1,634
1996	165	1,621
1997	153	1,624
1998	161	1,594

Across the U.S., 69,000 pedestrians were injured and 5,220 were killed in traffic crashes, representing 2.2 percent of all the people injured and 12.6 percent of all traffic fatalities.

1998 Arizona Crash Facts Summary

Table 7-4 Pedestrians Killed

Pedestrian Action	Total	0-4	5-9	10-14	15-19	20-24	25-44	45-64	65 & Older	Not Reported
Crossing Road	90	3	2	0	5	6	33	23	16	2
Walking In Roadway With Traffic	4	0	0	0	0	1	3	0	0	0
Walking In Roadway Against Traffic	4	0	0	0	0	1	0	1	2	0
Standing In Roadway	12	1	0	0	0	2	4	2	3	0
Pushing or Working On Veh. In Roadway	3	0	0	0	0	0	1	2	0	0
Other Working In Roadway	0	0	0	0	0	0	0	0	0	0
Lying In Roadway	8	0	0	0	1	1	6	0	0	0
Getting On or Off Veh. In Roadway	1	0	0	0	0	0	1	0	0	0
Other In Actions In Roadway	17	4	1	0	0	0	10	0	2	0
Unknown	13	1	0	0	1	1	5	2	2	1
Not Reported	9	2	0	0	0	0	4	1	2	0
TOTALS	161	11	3	0	7	12	67	31	27	3

Table 7-5 Pedestrians Injured

Pedestrian Action	Total	0-4	5-9	10-14	15-19	20-24	25-44	45-64	65 & Older	Not Reported
Crossing Road	951	48	112	125	109	69	259	133	75	21
Walking In Roadway With Traffic	82	3	2	11	14	5	33	7	6	1
Walking In Roadway Against Traffic	82	2	5	5	8	8	23	19	8	4
Standing In Roadway	84	0	1	10	8	10	27	14	10	4
Pushing or Working On Veh. In Roadway	21	0	0	0	1	0	15	4	0	1
Other Working In Roadway	3	0	0	0	0	2	1	0	0	0
Lying In Roadway	7	0	0	0	0	1	5	1	0	0
Getting On or Off Veh. In Roadway	20	0	2	1	2	1	6	3	4	1
Other In Actions In Roadway	269	17	37	25	30	19	55	48	30	8
Unknown	39	1	4	6	3	5	5	9	3	3
Not Reported	36	4	2	4	2	0	8	10	6	0
TOTALS	1,594	75	165	187	177	120	437	248	142	43

Table 7-6 Pedestrian Physical Condition

Pedestrian Condition	% of Total		% of Fatal		% of Injury		% of PDO	
	Total	Peds	Fatal	Peds	Injury	Peds	PDO	Peds
No Apparent Defects	1,220	66.49%	40	24.84%	1,123	70.45%	9	11.25%
Impaired Had Been Drinking	268	14.60%	46	28.57%	213	13.36%	57	71.25%
Other Bodily Defects	25	1.36%	2	1.24%	22	1.38%	1	1.25%
Ill, Ability Influenced	4	0.22%	0	0%	4	0.25%	0	0%
Sleepy, Fatigued	1	0.05%	0	0%	1	0.06%	0	0%
Under Influence Of Narcotic Drug	13	0.71%	1	0.62%	12	0.75%	0	0%
Not Reported/Unknown	304	16.57%	72	44.72%	219	13.74%	13	16.25%
TOTALS	1,835	100.0%	161	100.0%	1,594	100.0%	80	100.0%

Section 7: Pedestrian and Pedalcyclist Crashes

**Table 7-7
Lighting Conditions - Pedestrian Crashes**

Lighting Conditions	Number of Pedestrian Crashes			
	Total	Fatal	Injury	PDOs
Daylight	1,001	44	919	38
Darkness	602	108	479	15
Dawn or Dusk	101	8	86	7
Not Reported	1	0	1	0
TOTALS	1,705	160	1,485	60

**Table 7-8
Weather Conditions - Pedestrian Crashes**

Weather Conditions	Number of Pedestrian Crashes			
	Total	Fatal	Injury	PDOs
Clear	1,435	118	1,267	50
Raining	61	11	48	2
Cloudy	181	21	152	8
Snowing	6	0	6	0
Strong wind	6	0	6	0
Dust	1	0	1	0
Fog	2	0	2	0
Other	0	0	0	0
Not Reported	13	10	3	0
TOTALS	1,705	160	1,485	60

Table 7-9

1998 Arizona Crash Facts Summary

Pedalcyclists by Age and Gender

Age Group	Persons Killed			Persons Injured			
	Total	Male	Female	Total	Male	Female	Not Reported
0-4	0	0	0	13	11	2	0
5-9	1	0	1	148	110	38	0
10-14	3	3	0	330	261	69	0
15-19	2	1	1	280	223	57	0
20-24	1	1	0	230	164	66	0
25-34	3	3	0	353	273	80	0
35-44	5	5	0	288	226	62	0
45-54	5	5	0	141	120	21	0
55-64	1	1	0	49	39	10	0
65-74	2	2	0	33	30	3	0
75 & Older	0	0	0	51	43	7	1
Not Reported	0	0	0	38	32	6	0
TOTALS	23	21	2	1,954	1,532	421	1

**Table 7-10
Pedalcycle Crashes³⁴**

Statewide	Total	Urban	Rural
Number Of Crashes	2,259	2,088	171
Persons Killed	23	18	5
Persons Injured	1,954	1,854	100
Property Damage Only	299	273	26

NUMBER OF PEDALCYCLISTS		
Year	Total Killed	Total Injured
1989	30	1,864
1990	28	2,055
1991	30	2,121
1992	18	2,091
1993	24	2,162
1994	21	2,271
1995	31	2,308
1996	30	2,089
1997	31	2,067
1998	23	1,954

**Table 7-11
Pedalcycle Crash History**

In 1998, 53,000 pedalcyclists were injured and 761 were killed in traffic crashes across the country. This represented 1.7 percent of all injuries and 1.8 percent of all fatalities from traffic crashes.

Section 7: Pedestrian and Pedalcyclist Crashes

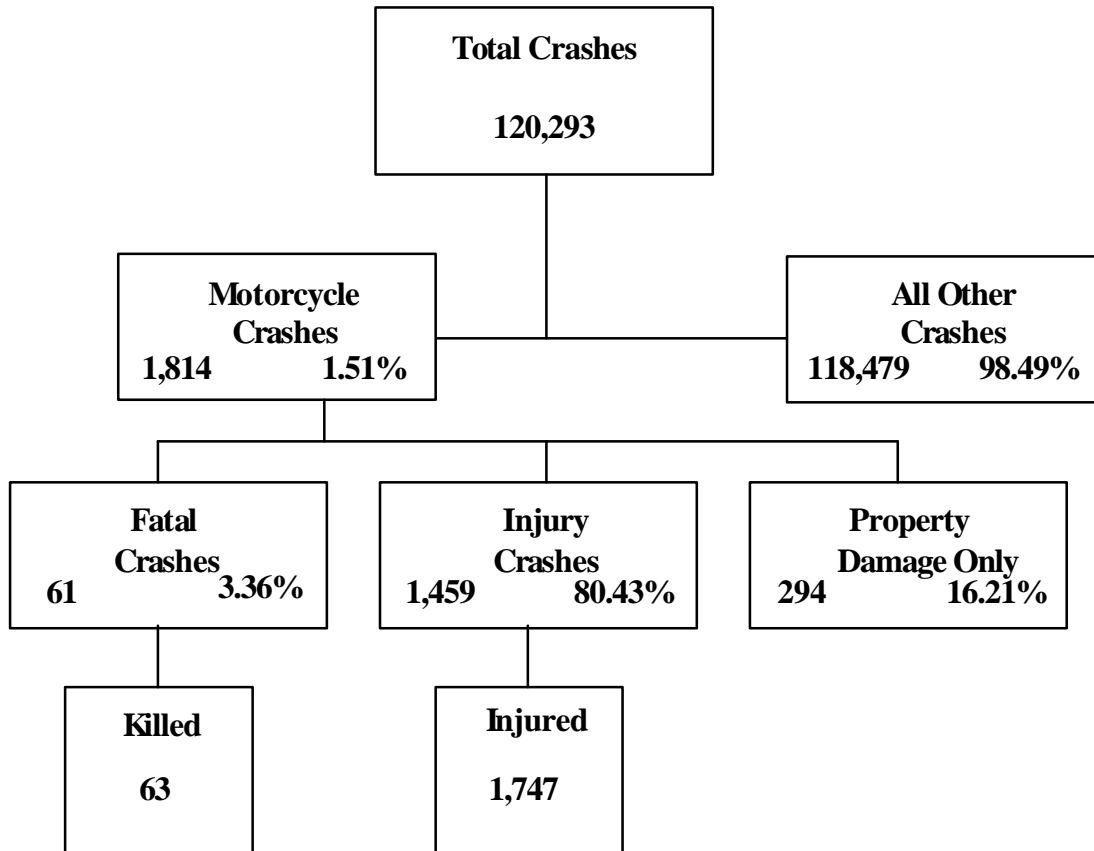
**Table 7-12
Lighting Conditions - Pedalcyclist Crashes**

Lighting Conditions	Number of Pedalcyclist Crashes			
	Total	Fatal	Injury	PDOs
Daylight	1,793	14	1,548	231
Darkness	343	8	287	48
Dawn or Dusk	122	2	100	20
Not Reported	1	0	1	0
TOTALS	2,259	24	1,936	299

**Table 7-13
Weather Conditions - Pedalcyclist Crashes**

Weather Conditions	Number of Pedalcyclist Crashes			
	Total	Fatal	Injury	PDOs
Clear	1,994	21	1,705	268
Raining	36	1	29	6
Cloudy	216	2	192	22
Snowing	3	0	2	1
Strong wind	3	0	3	0
Dust	0	0	0	0
Fog	0	0	0	0
Other	0	0	0	0
Not Reported	7	0	5	2
TOTALS	2,259	24	1,936	299

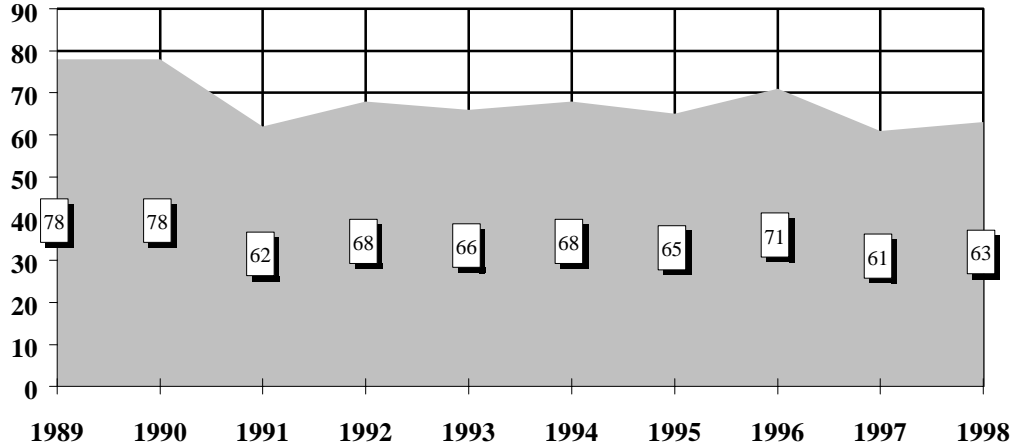
Section 8: Motorcycle Crashes



Includes motorcycle drivers and/or motorcycle passengers only

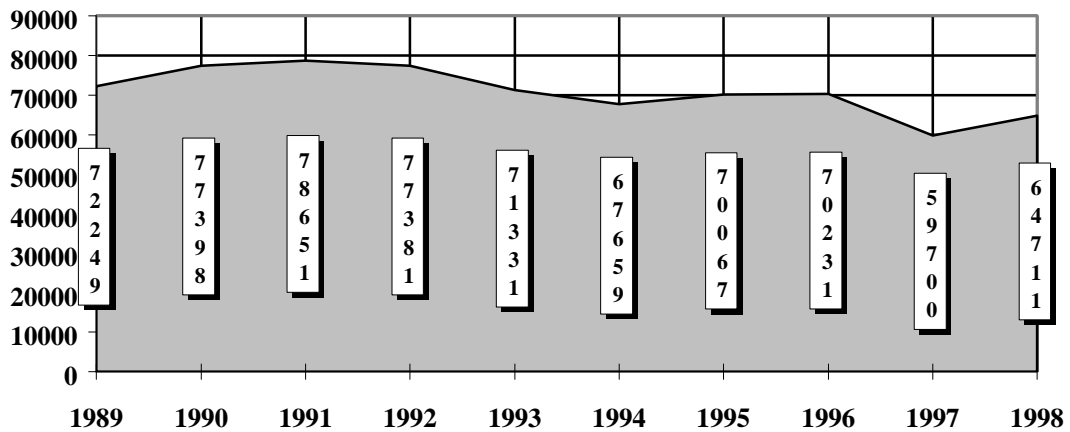
Section 8: Motorcycle Crashes

**Figure 8-1
Motorcycle Fatalities by Year**



In 1998, 2,284 motorcyclists were killed in traffic crashes in the United States, 63 of these occurred on Arizona roadways.

**Figure 8-2
Motorcycle Registrations in Arizona**



1997-98 Totals include motorcycles only. Prior years included golf carts, atv's, etc.
Source: The Motor Vehicle Division of the Arizona Department of Transportation

1998 Arizona Crash Facts Summary

Figure 8-3

Motorcycle Fatality Rate per Registered Motorcycles

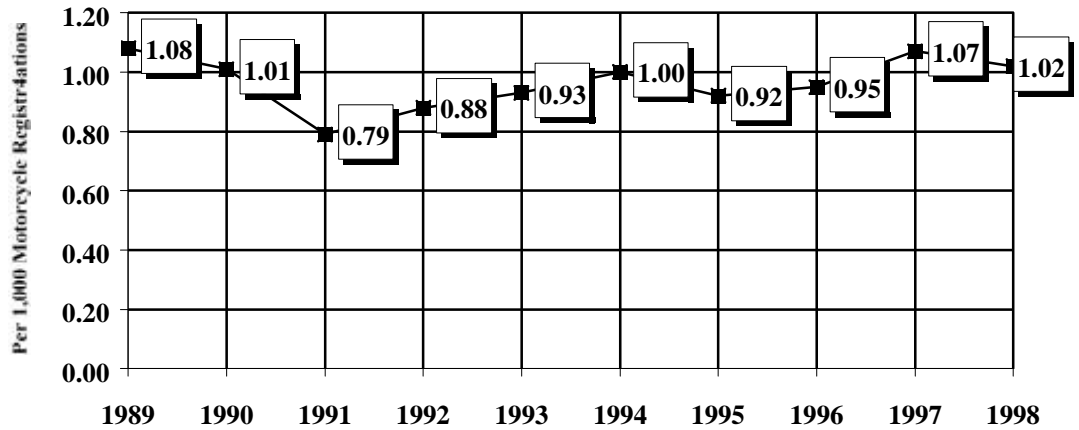
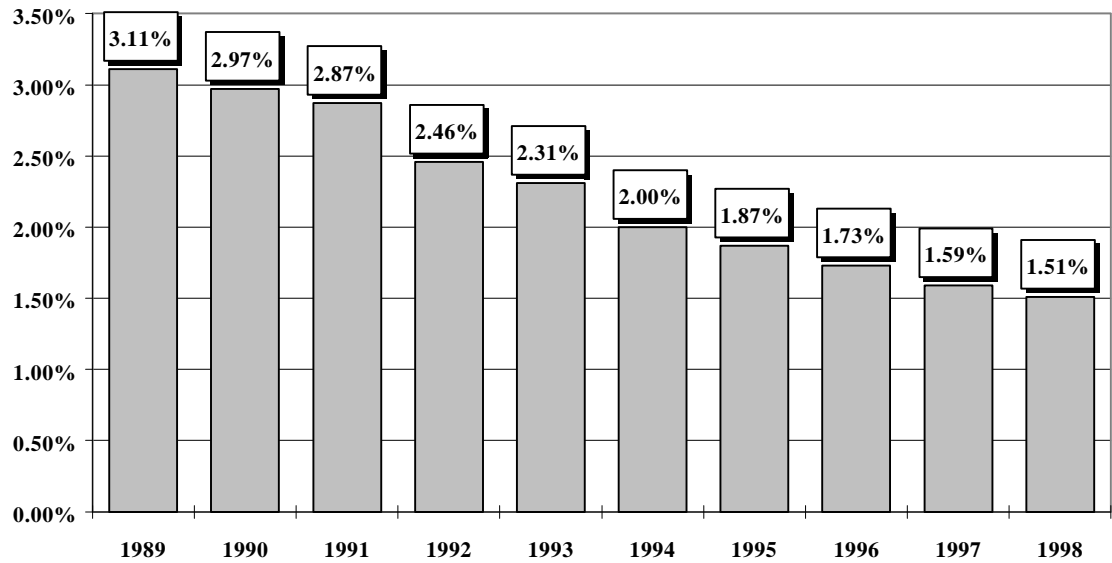


Figure 8-4

Percent of Motorcycle Crashes to All Crashes



Section 8: Motorcycle Crashes

**Table 8-1
Motorcycle Crashes by Type**

Accident Type	Number of Crashes			
	Total	Fatal	Non-Fatal Injury	Property Damage Only
Overturning	21	1	20	0
Pedestrian	8	0	8	0
Motor Vehicle In Transport	1,109	37	857	215
Motor Vehicle On Other Roadway	0	0	0	0
Pedalcyclist	11	0	9	2
Animal	24	0	21	3
Fixed Object	186	20	152	14
Other Object	12	0	7	5
Misc.	443	3	385	55
TOTALS	1,814	61	1,459	294

**Table 8-2
Motorcycle Crashes - Lighting Conditions**

Lighting Condition	Number of Crashes		
	Total	Fatal	Injury
Daylight	1,222	36	981
Dawn or Dusk	79	2	64
Darkness	510	23	412
Not Reported	3	0	2
Totals	1,814	61	1,459

**Table 8-3
Motorcycle Crashes - Road Surface**

Road Surface	Number of Crashes		
	Total	Fatal	Injury
Dry	1,748	59	1,412
Wet	47	1	35
Snowy/icy	3	0	0
Other	10	1	8
Not Reported	6	0	4
Totals	1,814	61	1,459

1998 Arizona Crash Facts Summary

Table 8-4

Motorcycle Crashes - Land Use

	Number of Crashes and % of Total				
	Total	Rural	% of Total	Urban	% of Total
Crashes	1,814	411	22.66%	1,403	77.34%
Fatalities	63	30	47.62%	33	52.38%
Injuries	1,747	415	23.76%	1,332	76.24%

Table 8-5

Operators' Age - Motorcycle Crashes

Age of Operator	Total No. of Operators	Percent of Total	Number of operators	
			Fatal Crashes	Injury Crashes
15 & Younger	29	1.57%	1	23
16	14	0.76%	0	11
17	20	1.08%	0	17
18-19	88	4.77%	5	73
20-24	321	17.40%	5	262
25-34	480	26.02%	15	399
35-44	426	23.09%	18	338
45-54	295	15.99%	10	245
55-64	88	4.77%	4	72
65-74	21	1.14%	2	16
75 & Older	63	3.41%	1	28
Not Reported	0	0%	0	0
TOTALS	1,845	100%	61	1,484

Table 8-6

Alcohol-Related Motorcycle Crashes

Total number of impaired operators	157
Total number of fatal crashes	21
Total number of injury crashes	154

Section 8: Motorcycle Crashes

Table 8-7

Motorcycle Operators Involved in Fatal Crashes by License Status*

License Status	1996		1997		1998	
	Total Fatal Crashes	Percent of Fatal Crashes	Total Fatal Crashes	Percent of Fatal Crashes	Total Fatal Crashes	Percent of Fatal Crashes
No license	4	5.97%	4	6.67%	6	9.09%
Invalid	25	37.31%	18	30.00%	15	27.27%
Valid	34	50.75%	37	61.67%	40	63.64%
Unknown	4	5.97%	1	1.67%	0	0%
TOTALS	67	100.00%	60	100.00%	61	100.00%

*Note: includes only motorcycle operators involved in fatal crashes.

Table 8-8

Motorcycle Operator's Helmet Use

Severity of Injury	Number of Motorcycle Crashes							
	Helmet Used	% of Total	No Helmet	% of Total	Unknown	% of Total	Total	% of Total
No injury	82	14.29%	140	15.63%	74	19.73%	296	16.04%
Possible injury	117	20.38%	167	18.64%	92	24.53%	376	20.38%
Non-incapacitating	252	43.90%	332	37.05%	110	29.33%	694	37.62%
Incapacitating	108	18.82%	202	22.54%	58	15.47%	368	19.95%
Fatality	9	1.57%	45	5.02%	7	1.87%	61	3.31%
Unknown	6	1.05%	10	1.12%	34	9.07%	50	2.71%
TOTALS	574	100.00%	896	100.00%	375	100.00%	1,845	100.00%

Table 8-9

Motorcycle Passenger Helmet Use

Severity of Injury	Number of Motorcycle Crashes							
	Helmet Used	% of Total	No Helmet	% of Total	Use Unknown	% of Total	Total	% of Total
No injury	9	18.00%	18	14.40%	11	33.33%	38	18.27%
Possible injury	10	20.00%	25	20.00%	6	18.18%	41	19.71%
Non-incapacitating	19	38.00%	48	38.40%	7	21.21%	74	35.58%
Incapacitating	10	20.00%	30	24.00%	6	18.18%	46	22.12%
Fatality	0	0%	1	0.80%	1	3.03%	2	0.96%
Unknown	2	4.00%	3	2.40%	2	6.06%	7	3.37%
TOTALS	50	100.00%	125	100%	33	100.00%	208	100.00%

“NHTSA estimates that helmets saved 500 motorcyclists’ lives in 1998, and that 307 more could have been saved if all motorcyclists had worn helmets.”

1998 Arizona Crash Facts Summary

Table 8-10

Motorcycle Operators and Passengers Killed and Injured

Age of Victims	Number Killed			Number Injured			
	Total	Male	Female	Total	Male	Female	Unk.
0 - 4	0	0	0	3	2	1	0
5 - 9	0	0	0	15	11	4	0
10 - 14	1	1	0	44	30	14	0
15 - 19	6	6	0	136	112	24	0
20 - 24	5	4	1	303	261	41	1
25 - 34	17	16	1	452	396	56	0
35 - 44	19	19	0	377	321	56	0
45 - 54	9	8	1	272	235	37	0
55 - 64	4	4	0	87	72	15	0
65 - 74	2	2	0	24	18	6	0
75 & Older	0	0	0	16	12	4	0
Not Reported	0	0	0	18	9	8	1
TOTALS	63	60	3	1,747	1,479	266	2

Table 8-11

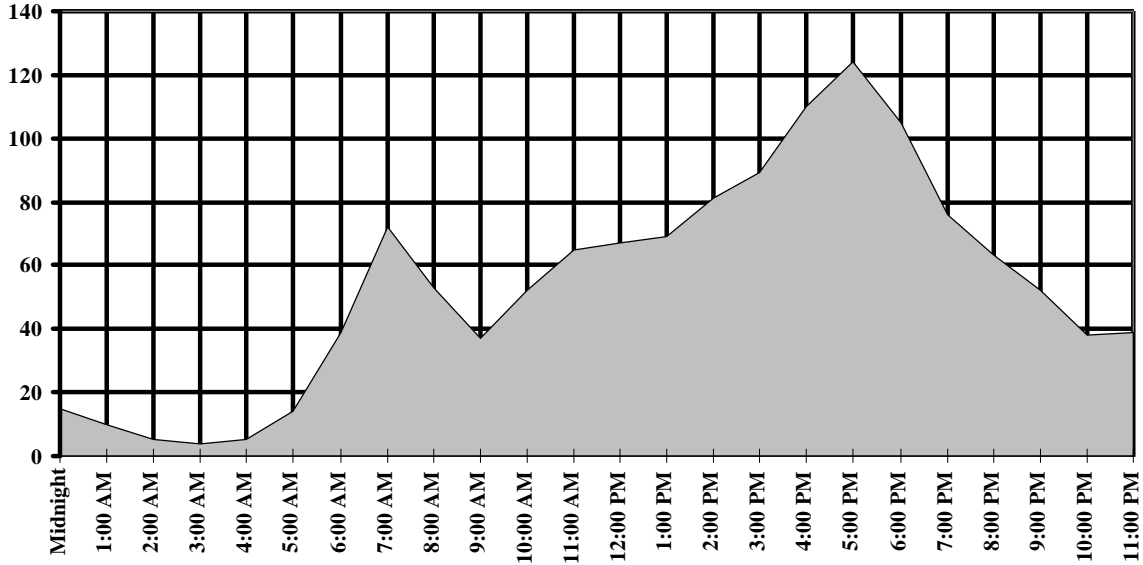
Motorcycle Operator Errors

Contributing Circumstances	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number Of Cases	Percent Of Units	Number Of Cases	Percent Of Units	Number Of Cases	Percent Of Units
Exceeding lawful speed limit	27	1.46%	5	8.20%	20	1.35%
Speed too fast for conditions	486	26.34%	26	42.62%	386	26.01%
Failed to yield	67	3.63%	0	0%	51	3.44%
Passed stop sign	15	0.81%	1	1.64%	8	0.54%
Disregarded traffic signal	26	1.41%	2	3.28%	22	1.48%
Drove left of center	12	0.65%	1	1.64%	10	0.67%
Followed too closely	18	0.98%	0	0%	16	1.08%
Made improper turn	17	0.92%	0	0%	12	0.81%
Driver inattention	117	6.34%	2	3.28%	97	6.54%
Had been drinking	157	8.51%	16	26.23%	123	8.29%
Other improper driving	90	4.88%	2	3.28%	66	4.45%
Faulty or Missing Equip.	15	0.81%	2	3.28%	12	0.81%
Other	57	3.09%	2	3.28%	46	3.10%
No improper driving	689	37.34%	2	3.28%	571	38.45%
Not Reported	52	2.82%	0	0%	44	2.96%
TOTALS	1,845	100.00%	61	100.00%	1,484	100.00%

Section 8: Motorcycle Crashes

**Figure 8-5
Motorcycle Crashes by Time of Day**

Weekdays



**Figure 8-6
Weekends**

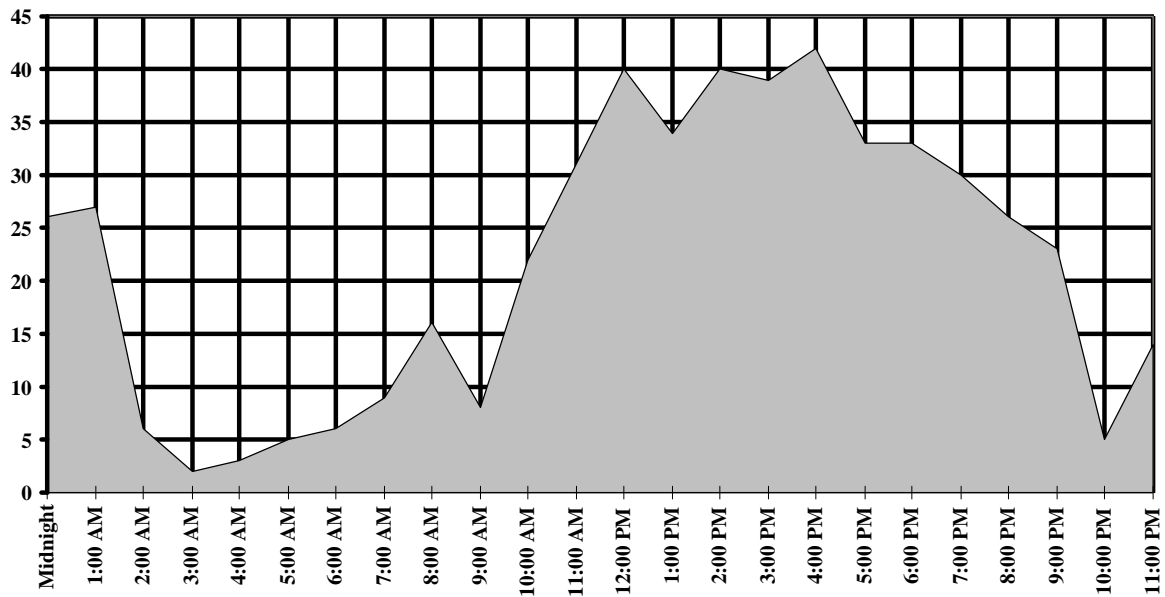


Figure 8-7
Fatal Motorcycle Crashes by Time of Day
Weekdays

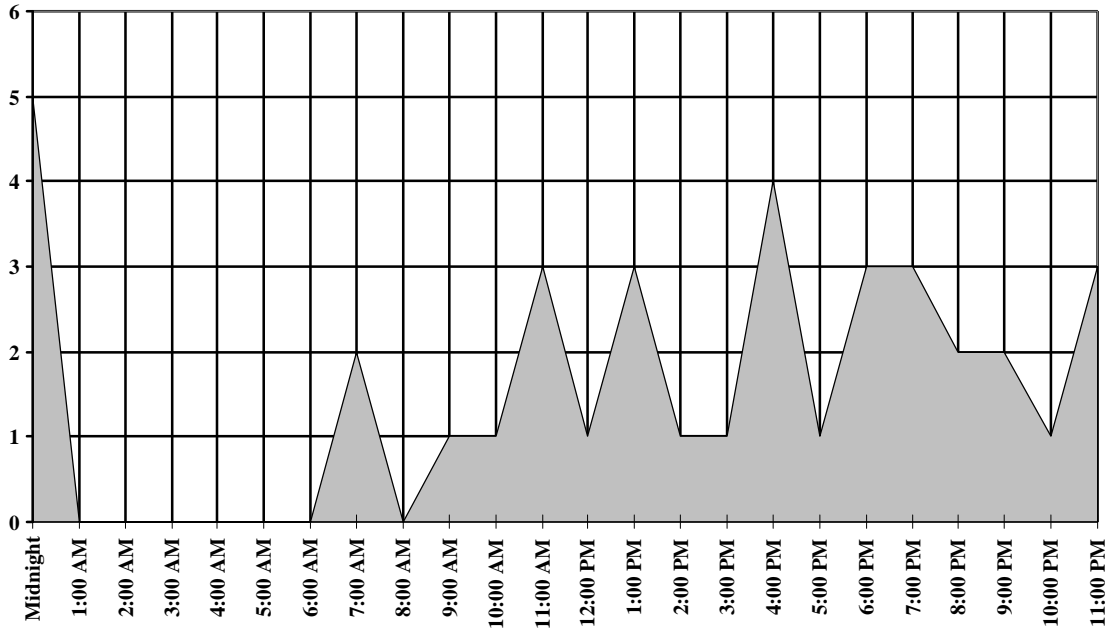
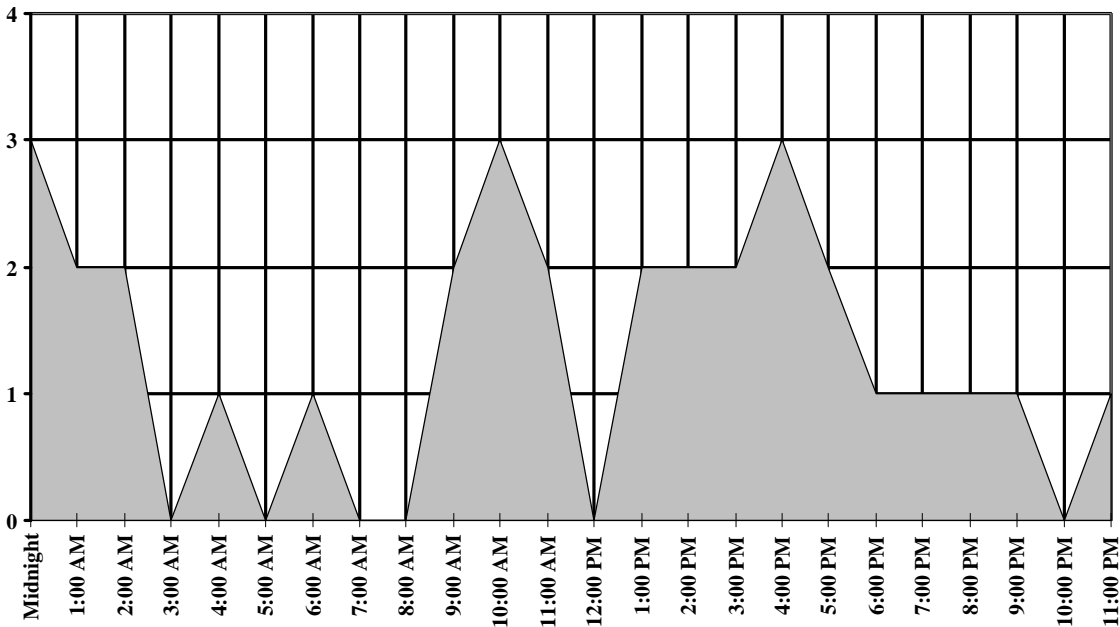
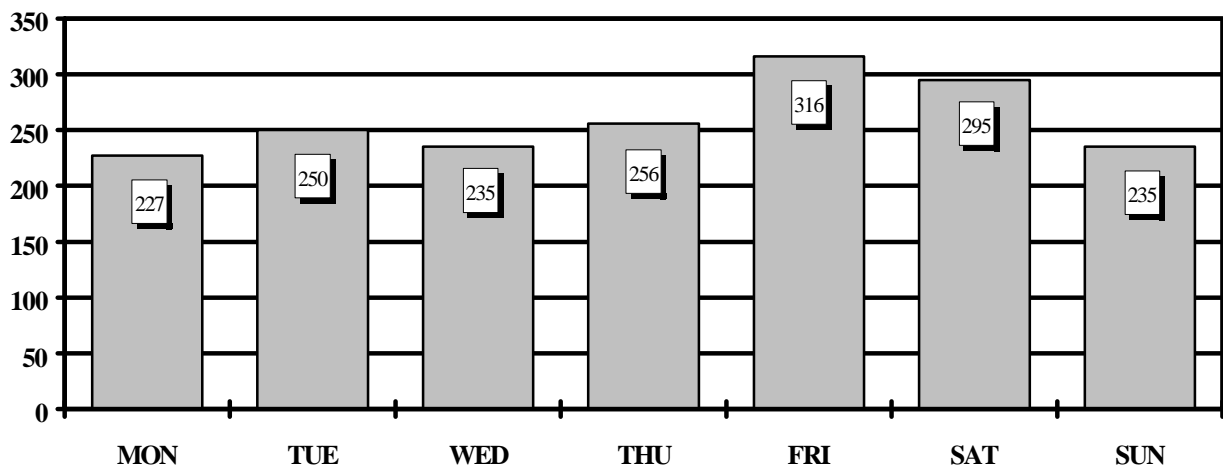


Figure 8-8
Fatal Motorcycle Crashes by Time of Day
Weekends

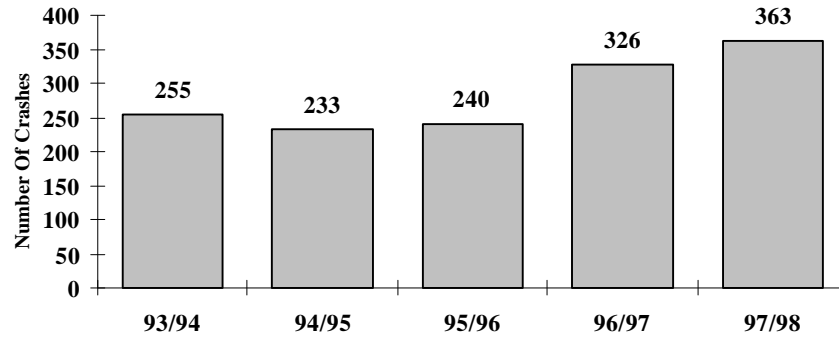


Section 8: Motorcycle Crashes

Figure 8-9
Motorcycle Crashes by Day of Week



Section 9: School Bus Crashes



**Table 9-1
School Bus Driver Errors**

	Number of Drivers and % of Total	
	Total	%
No Improper Driving	183	50.41%
Speed not Reasonable & Proper	51	14.05%
Failed to Yield	25	6.89%
Following too Closely	3	0.83%
Improper Turn	28	7.71%
Drove in Opposing Lane	0	0%
Other	11	3.03%
Unknown	12	3.31%
Inattention	33	9.09%
No Passing Zone	10	2.75%
Unsafe Lane Change	7	1.93%
TOTAL DRIVERS	363	100.00%

Section 9: School Bus Accidents

**Table 9-2
School Bus Crash History**

	School Year				
	93/94	94/95	95/96	96/97	97/98
Injuries and Fatalities					
Pupils					
Killed	1	0	1	0	0
Injured	92	117	142	131	98
Bus Drivers					
Killed	0	0	0	0	0
Injured	18	15	19	25	26
Property Damage Only Crashes	202	216	173	213	239
Crash by Time of Day					
A.M.	124	111	108	139	163
P.M.	131	122	132	187	200
Weather Conditions:					
Not Reported	1	1	0	1	0
Clear and Dry	204	185	209	255	293
Rain	11	14	9	17	16
Snow or Ice	2	3	4	6	10
Dusty or Windy	0	0	0	4	1
Fog	0	0	0	0	0
Cloudy	37	30	18	43	43

The National Highway Traffic Safety administration reports that “Across the nation, an average of 30 school-age children die in school bus-related traffic crashes each year – 9 school bus occupants and 22 pedestrians”.

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