

FATAL CRASH ANALYSIS

2005



*TRANSPORTATION DIVISION
STUDIES GROUP*

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INTRODUCTION

The **2005 FATAL CRASH ANALYSIS** is a statistical review of the 64 fatal crashes and 67 fatalities that occurred on the City of Mesa streets in 2005. It focuses on vehicle crashes involving fatalities identified in the 2005 Police Accident Reports (PARs) investigated and reported by the City of Mesa Police Department. Crashes occurring on the Superstition Freeway (US 60), the Price Freeway (Loop 101) and the Red Mountain Freeway (Loop 202), which are under the jurisdiction of the Arizona Department of Public Safety, were not included in the analysis.

A fatal crash is a traffic crash that may involve one or more motor vehicles, pedestrians, or bicyclists in which a collision takes place and fatal injuries occur as result of the collision. The death of a person must be within 30 days of the crash to be classified as a fatal injury.

The database used to prepare this report was compiled and maintained by the Traffic Records Section of the Arizona Department of Transportation. Definitions and terms were extracted from the Arizona Traffic Accident Report Instruction Manual and Glossary, 7th Edition, dated December 2000.

The purpose of analyzing fatal traffic crashes is to better understand the underlying causes of fatal crashes. Analysis of the crashes reveals facts about the types of streets where crashes happened, behavior of pedestrians and motorists that caused the crashes, the times of day and year accidents occur, and age and sex of pedestrians involved in pedestrian/motor vehicle crashes. Once an understanding of the root causes of fatal crashes is gained, the Transportation Division can do further analysis to determine if the traffic environment in the City of Mesa can be made safer. Analysis of fatal crashes also helps in developing appropriate messages for educating the public.

Percentages in all charts may total more or less than 100% due to rounding.

National statistics contained in this report were obtained from the Fatality Analysis Reporting System (FARS) Web-Based Encyclopedia. Unless otherwise stated, statistics are from the calendar year 2004. Final statistics were not available for 2005.

Questions or comments concerning this report should be directed to City of Mesa, Transportation Division, P.O. Box 1466, Mesa, Arizona, 85211-1466, (480) 644-2160.

EXECUTIVE SUMMARY - FATAL CRASHES

- Fatal crashes continue to be a random occurrence.
- Sixty-four fatal crashes occurred with 67 fatalities.
- The total number of fatal crashes occurring increased by 156% over 2004.
- Mesa's percentage of fatal motor vehicle crashes per 100,000 population is just above the national average.
- The percentage of fatal motorcycle crashes increased to almost 15% of all fatal crashes.
- Over 79% of all fatal crashes occurred on arterial streets.
- Over 45% were intersection related.
- Just over six percent involved red light violations.
- Only one crash involved a stop sign violation.
- Males were the victims over 80% of the time.
- When normalized, the "75 - 84" age group had the highest over-representation of all age groups.
- Pedestrian crashes accounted for 25% of all fatal crashes.
- Alcohol or drugs were contributing factors in over 43% of all fatal crashes.
- The driver of the unit most at fault was the most frequent victim.
- January had the highest monthly frequency.
- Friday had the highest daily frequency.
- The hour of 6:01 to 7:00 PM had the highest frequency.
- Of all the fatal crashes in which the victim was in a motor vehicle, the seatbelt was in use by the victim over 42% of the time.

DEFINITIONS

Angle. A traffic crash that occurs when a vehicle collides with another vehicle (usually at a 90 degree angle) as a result of a vehicular right-of-way violation.

Head-On. A collision involving vehicles traveling in opposite directions wherein at least one of the vehicles crosses the roadway centerline.

Intersection Related Crash. A traffic crash where the first harmful event (1) occurs on an approach to, movement through or exit from an intersection and (2) has resulted from an activity, behavior, or control related to the intersection.

Left-Turn. A traffic crash that occurs when a left-turning vehicle collides with a through vehicle on the opposite approach of the left-turning vehicle.

Pedestrian. Any person who is not an occupant or driver of a motor vehicle or other road vehicle. Includes: person walking, sitting, lying, working or operating a pedestrian conveyance.

Possible Injury. Any injury reported or claimed which is not a fatal, incapacitating, or non-incapacitating evident injury. Includes such situations as nausea, hysteria, complaint of pain, and injuries not evident.

Rear-End. A collision with the rear of another vehicle, either moving or stopped (excluding parked vehicles).

Sideswipe, Same Direction. A collision with another vehicle or bicyclist traveling in the same direction.

Traffic Unit. A traffic unit is a vehicle, pedestrian, pedalcyclist, or rider on an animal involved in a motor vehicle traffic accident. It is **preferred** that police jurisdictions assign traffic **unit number 1** to the vehicle, pedestrian, pedalcyclist, or animal rider causing the collision, however, this procedure is not mandatory.

Unit Action. The action at the moment of and/or which most directly affected the accident.

FIVE YEAR CRASH TREND

Chart 1, page 8, shows that for the past five years, the number of fatal crashes varied up and down annually. In 2005, fatal crashes were up significantly from 2004 while the total number of crashes increased less than one percent.

When normalized, the 2005 fatalities per 100,000 population increased by 85.2% from the five-year norm. Normalization puts into perspective an increase or decrease in the number of crashes when there is a concurrent rise in the number of drivers, cyclists and automobiles due to population growth (and a consequent increase in opportunities for conflicts).

TABLE 1: FATAL CRASHES - FIVE YEAR TREND

Year	Fatal Crashes	Total Fatalities	Total Vehicle Crashes	Estimated Population*	Fatalities Per 100,000 Population	Percent Change From Yearly Average
2001	31	31	9,928	428,883	7.2	-11.1%
2002	22	23	9,155	438,181	5.2	-35.8%
2003	30	31	8,520	440,404	7.0	-13.6%
2004	25	27	9,184	449,017	6.0	-25.9%
2005	64	67	9,205	448,096	15.0	85.2%
Average	34.4	35.8	9,198	440,916	8.1	

* Population estimates provided by the City of Mesa Planning Division.

Trendlines are used to graphically display trends in data and to analyze problems of prediction. The trendlines shown in Charts 1 and 2 on page 8 are a best-fit straight line that are used with simple linear data sets. The data is linear if the pattern in its data points resembles a line. A linear trendline usually shows that something is increasing or decreasing at a steady rate. So when applied to the average crash rate for the past five years, the trendlines show a steady decrease in all vehicle crashes, but an increase in fatal crashes.

CHART 1: TOTAL NUMBER OF FATAL CRASHES

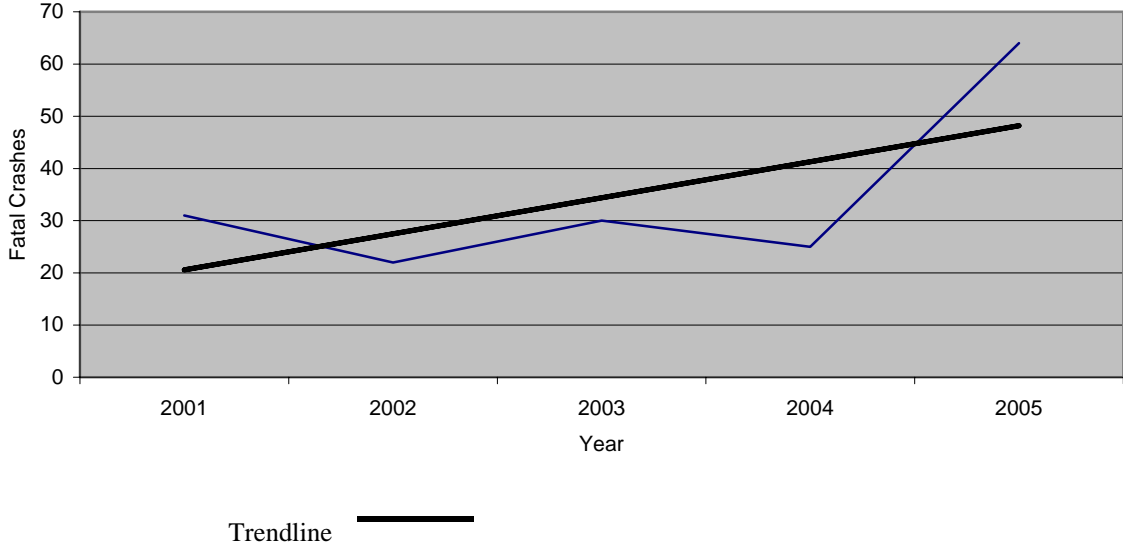
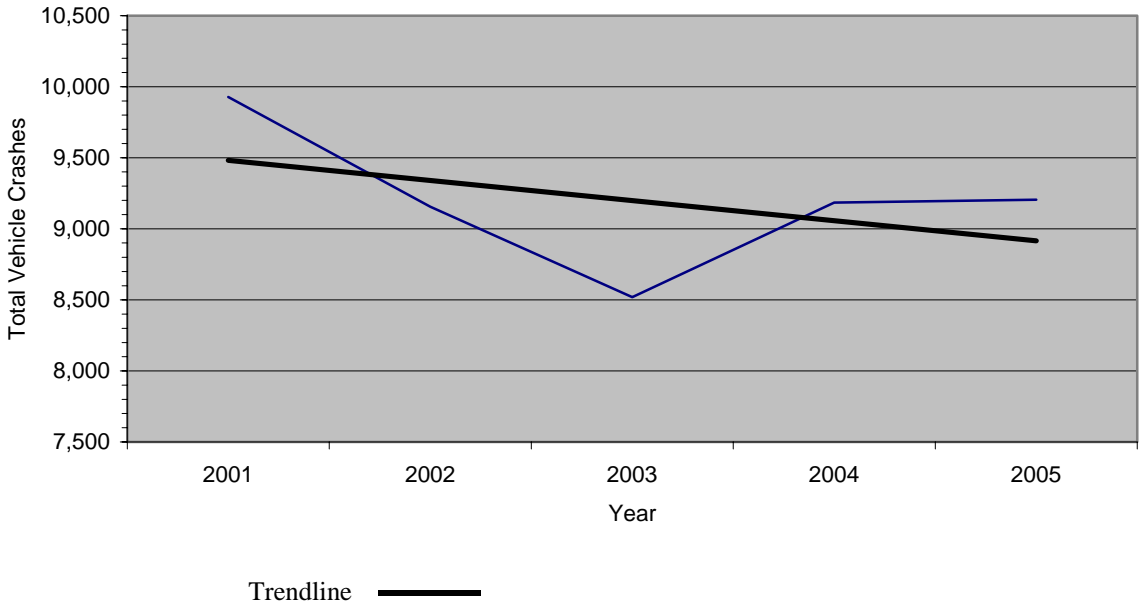


CHART 2: TOTAL NUMBER OF ALL VEHICLE CRASHES



NATIONAL COMPARISON

Although final national fatal statistics are not available for 2005, the U.S. Department of Transportation, National Center of Statistics & Analysis, projected figures indicate an increase in fatalities in 2005. Nationally, there has been a steady rise in fatalities of 3.4% over the past 10 years. Up until 2005, Mesa had experienced a downward trend in fatalities of 23% over the same period. Because of the spike in 2005, that trend has reversed to a 43% increase.

CHART 3: MESA TOTAL FATALITIES

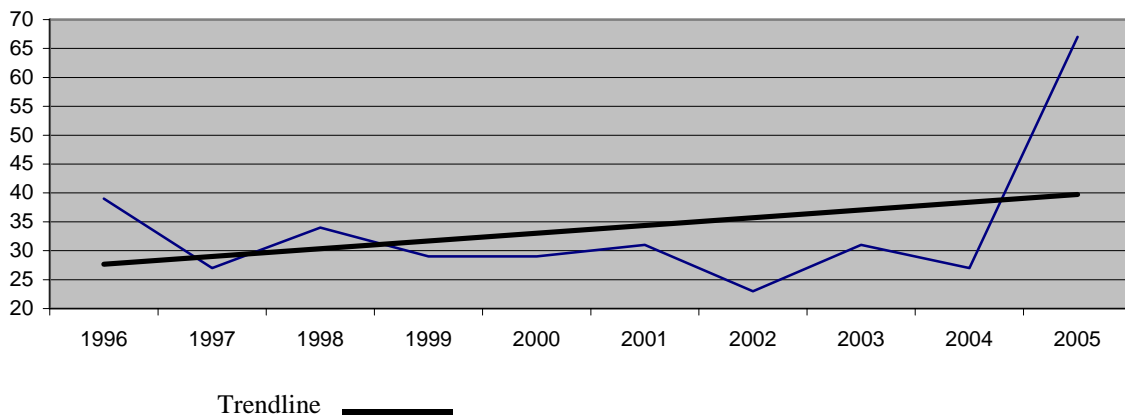
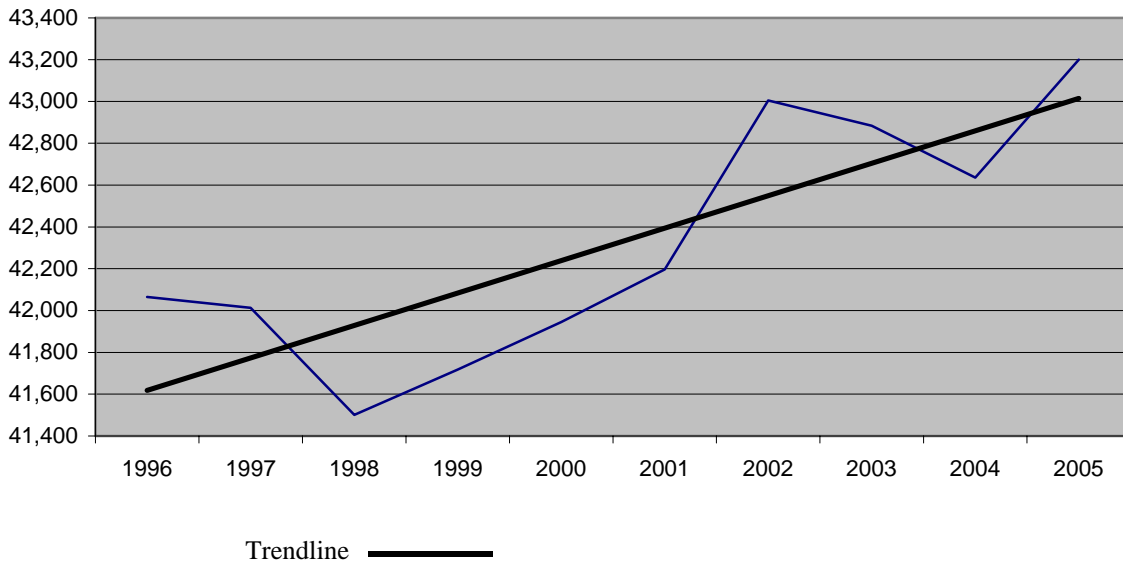


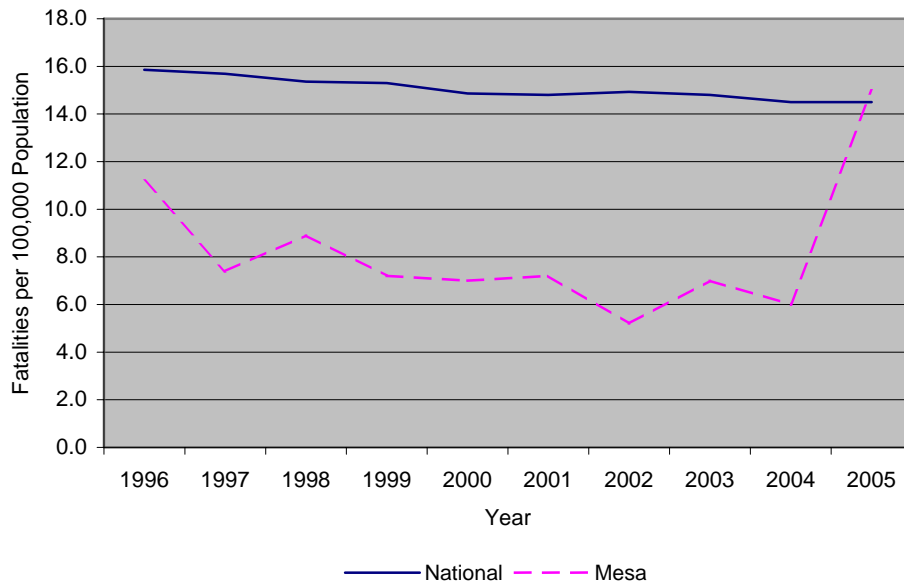
CHART 4: NATIONAL TOTAL FATALITIES



FIVE YEAR CRASH TREND: MESA VS NATIONAL AVERAGE

Up until 2005, Mesa had consistently experienced fewer normalized fatalities per 100,000 population per year than the national average. Nationally, fatalities per 100,000 population is projected to increase by 0.3% in 2005 from 2004. For the same period, Mesa experienced a 150% increase to 15 fatalities per 100,000 population - just above the national average of 14.5.

CHART 5: FATALITIES PER 100,000 POPULATION - MESA vs NATIONAL AVERAGE



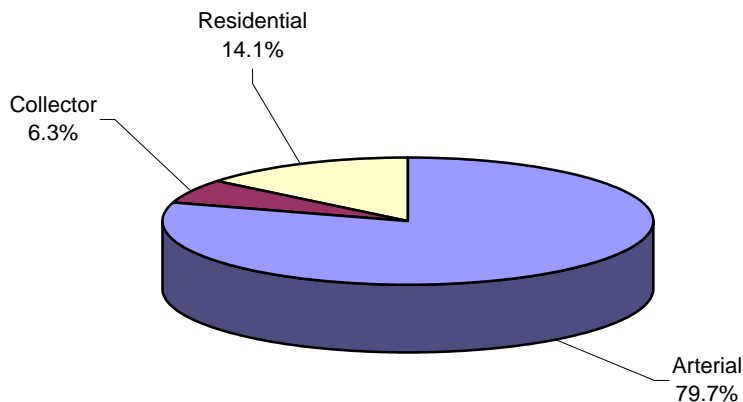
STREET CLASSIFICATION

Of the 64 fatal crashes, 79.7% occurred on arterial streets. Arterial streets are roadways that often extend across city boundaries, carry large volumes of traffic, and may have limited access to properties along the roadway. Country Club Drive and Southern Avenue are examples of arterial streets. Collector streets are roadways that collect and carry traffic between local and arterial streets and can provide access to abutting properties. Adobe Street and Pueblo Avenue are examples of collector streets. Local streets are low volume streets in residential and commercial areas. Because of higher speeds, higher volumes of traffic and greater widths associated with arterial roadways, the more potential for fatal injuries exists.

TABLE 2: FATAL CRASHES BY TYPE OF ROADWAY

Type of Roadway	Number of Crashes	Percent of Total
Arterial	51	79.7%
Collector	4	6.3%
Residential	9	14.1%
Total	64	100.0%

CHART 6: FATAL CRASHES BY TYPE OF ROADWAY



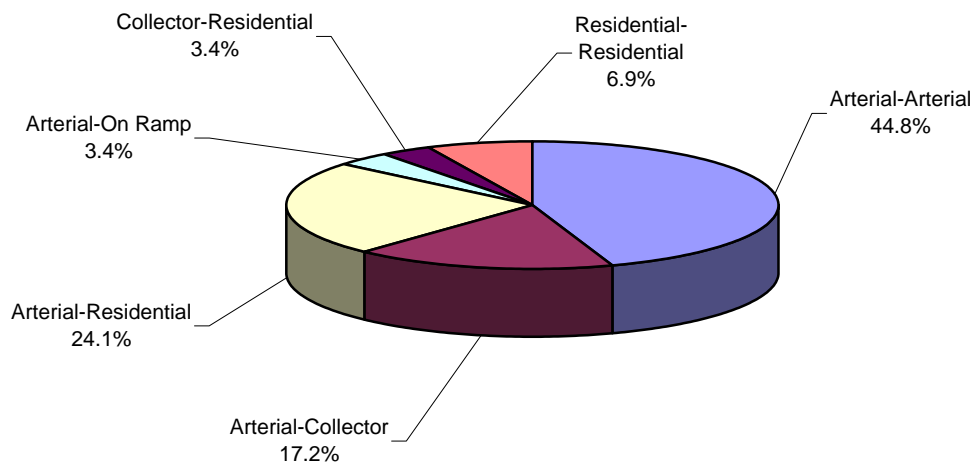
INTERSECTION CLASSIFICATION

Of the 29 intersection related crashes, 89.7% occurred at intersections having at least one approach classified as an arterial street. Mid-block fatal crashes occurring on arterials accounted for 77.1% of all mid-block crashes. As previously stated, because of higher speeds, higher volumes of traffic and wider roadways associated with arterials, the potential for more fatal injuries exists.

TABLE 3: CLASSIFICATION OF INTERSECTIONS

Intersection	Number of Fatal Crashes	% of Total Fatal Crashes
Arterial-Arterial	13	20.3%
Arterial-Collector	5	7.8%
Arterial-Residential	7	10.9%
Arterial-On Ramp	1	1.6%
Collector-Residential	1	1.6%
Residential-Residential	2	3.1%
Total Intersection Related	29	45.3%
Mid-Block		
Arterial	27	42.2%
Collector	1	1.6%
Residential	7	10.9%
Total Mid-Block	35	54.7%
Total	64	100.0%

CHART 7: CLASSIFICATION OF INTERSECTIONS



GEOGRAPHIC LOCATION

2005. Like the random nature of fatal crashes, the locations of fatal crashes also appear to be random. University Dr., Baseline Rd. and Broadway Rd. all had five crashes each. The intersection of Broadway Rd. and Val Vista Dr. had three crashes, but there appeared to be no commonality between either the drivers of U1 or the crash dynamics. See map on page 14.

2001 - 2005. There have been a total of 172 fatal crashes during this five-year period. Broadway Rd. has had the highest frequency of fatal crashes with 14. Baseline Road has had 13 during the same period. Intersection related crashes have accounted for 57.6% of all fatal crashes. With three fatal intersection related crashes in 2005, Broadway and Val Vista had the most intersection related fatal crashes. See map on page 15.

GENDER AND AGE

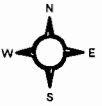
Certain groups of individuals, defined by gender and age, have a greater probability of being involved in fatal crashes.

GENDER. Consistently, year after year, males have a much greater fatality rate than do females. Males comprise 49.5% of Mesa's population, but were involved in 80.6% of all fatal crashes. The national percentage of male fatalities in 2004 was 68.8%.

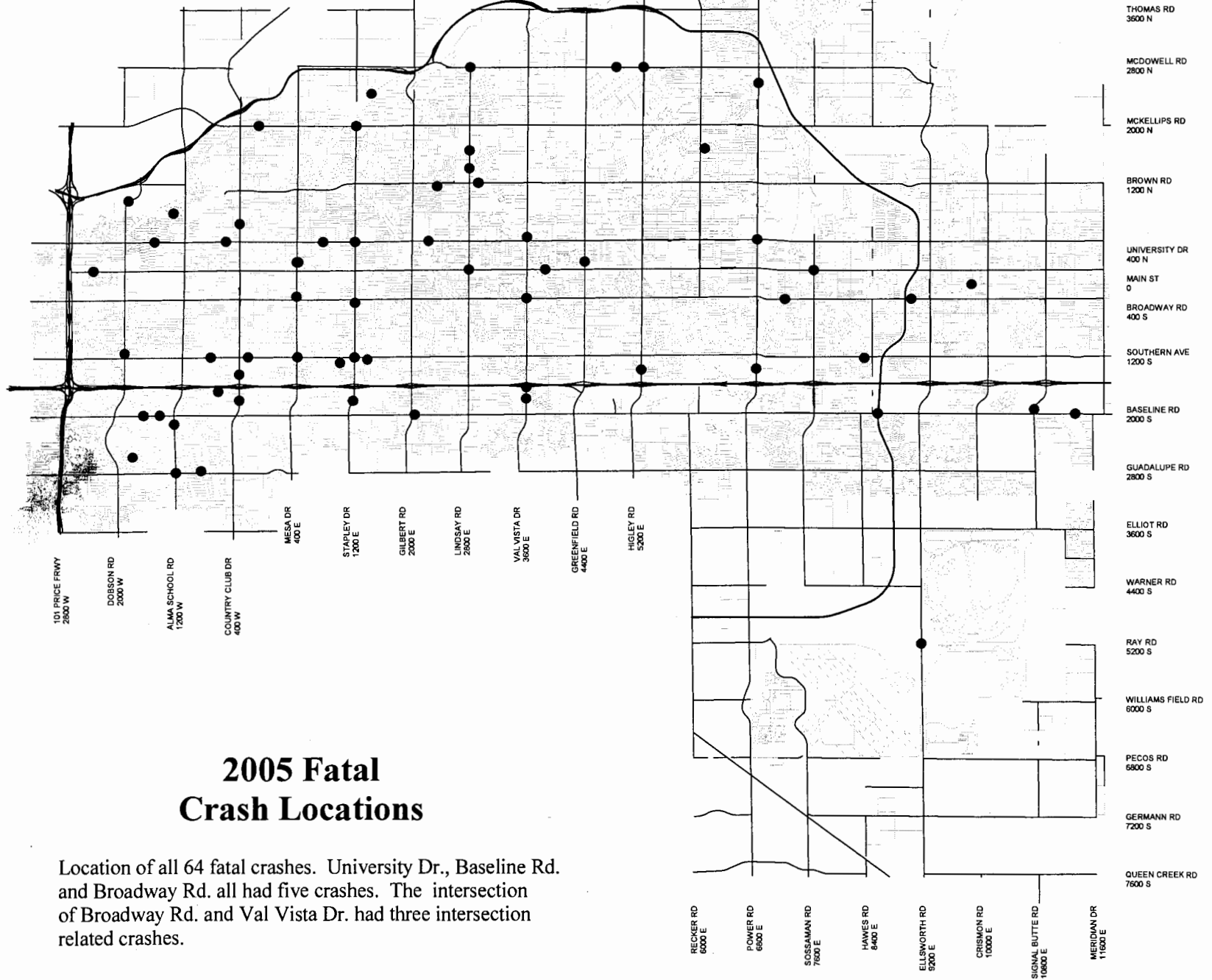
TABLE 4: GENDER OF VICTIMS

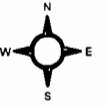
Gender	Persons Involved	Percent of Total	Percent of Estimated Population
Male	54	80.6%	49.5%
Female	13	19.4%	50.5%
Total	67	100.0%	100.0%

CHART 8: GENDER OF VICTIMS - See page 16.

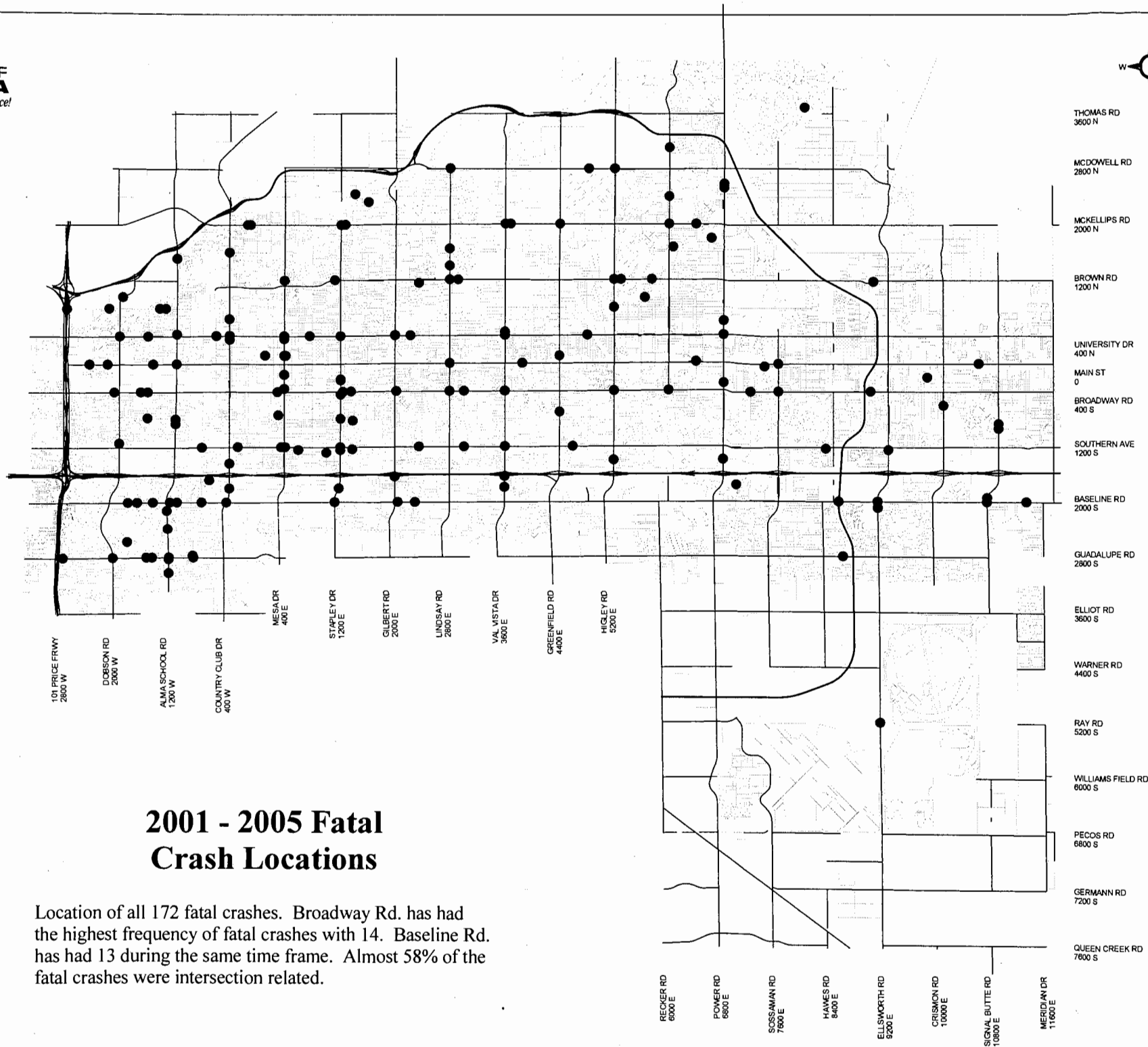


The City of Mesa makes no claims concerning the accuracy of the data provided nor assumes any liability resulting from the use of the information herein.





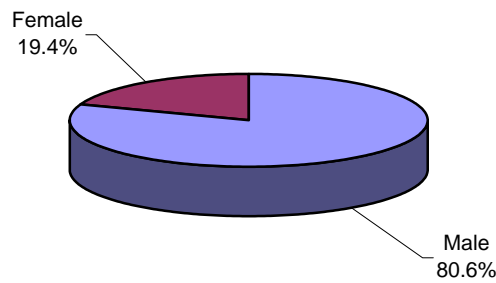
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2001 - 2005 Fatal Crash Locations

Location of all 172 fatal crashes. Broadway Rd. has had the highest frequency of fatal crashes with 14. Baseline Rd. has had 13 during the same time frame. Almost 58% of the fatal crashes were intersection related.

CHART 8: GENDER OF VICTIMS



AGE. When the number of crashes is normalized by looking at how many fatal crashes occur per every 10,000 people in each age group, the one age group that is the most over-represented is the 75 - 84 year-olds. See last column in table below. Three were the drivers of U1, three were pedestrians and one was the driver of U2. Other than age, there were no similarities between the crashes of the three U1 drivers.

The second highest over represented age group was the “Over 84” group. There were only two fatalities - one pedestrian and one driver of U1. Two other age groups that were significantly over-represented were the 20 - 24 and the 45 - 54 year-olds.

TABLE 5: AGE OF VICTIMS

Age	Population	Percent of Total Population	No. of Fatalities	Percent of Total Fatalities	Fatalities/ 10,000 Persons
Under 5	36,744	8.2%	2	3.0%	0.54
5 - 9	34,055	7.6%	1	1.5%	0.29
10 - 14	32,711	7.3%	1	1.5%	0.31
15 - 19	32,711	7.3%	6	9.0%	1.83
20 - 24	36,744	8.2%	10	14.9%	2.72
25 - 34	69,455	15.5%	11	16.4%	1.58
35 - 44	63,630	14.2%	7	10.4%	1.10
45 - 54	49,739	11.1%	12	17.9%	2.41
55 - 59	17,924	4.0%	2	3.0%	1.12
60 - 64	14,787	3.3%	2	3.0%	1.35
65 - 74	30,022	6.7%	4	6.0%	1.33
75 - 84	22,853	5.1%	7	10.4%	3.06
Over 84	6,721	1.5%	2	3.0%	2.98
Total	448,096	100.0%	67	100.0%	

CHART 9: AGE OF VICTIMS

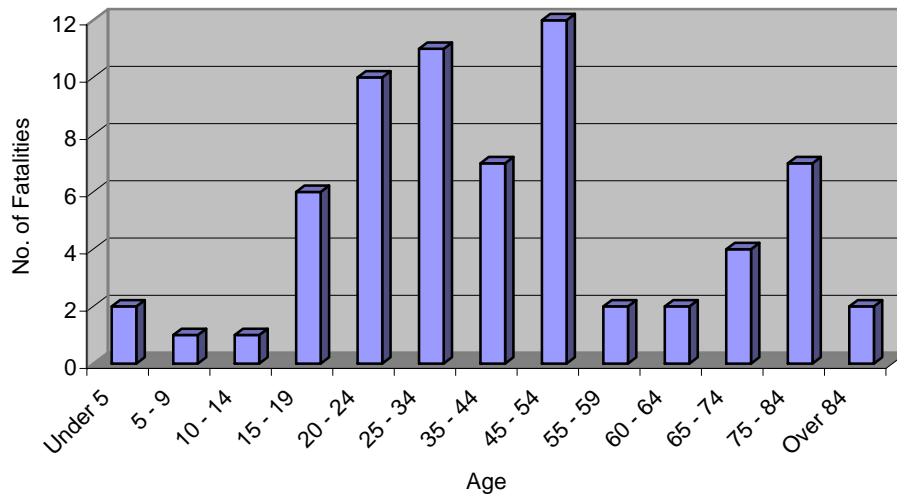
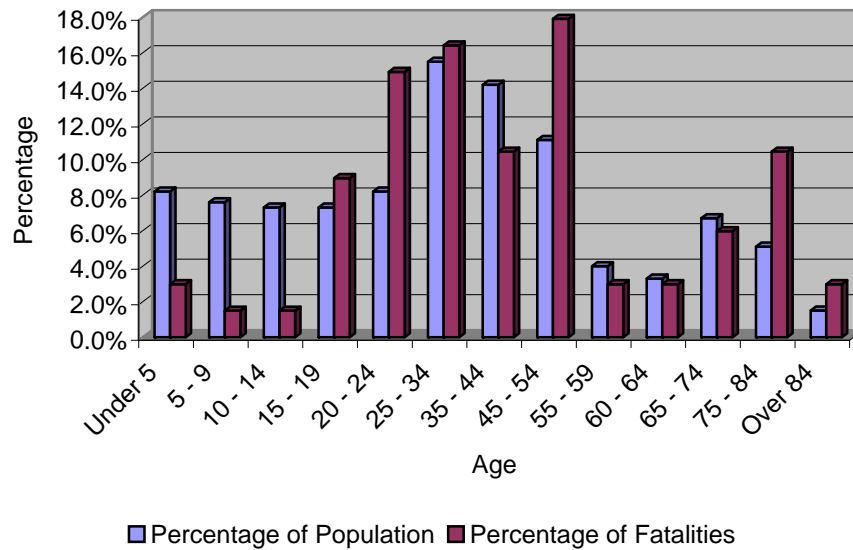
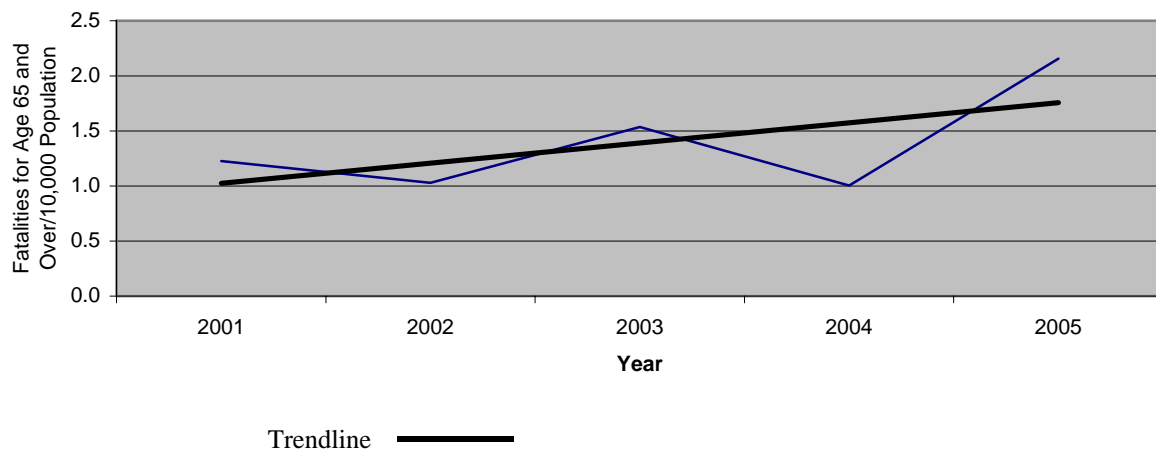


CHART 10: PERCENTAGE OF POPULATION vs PERCENTAGE OF FATALITIES



OLDER DRIVERS. The number of older drivers in the United States is expected to double over the next 30 years. As people age, a decline in sensory, cognitive, or physical functioning can make them less safe drivers, as well as more vulnerable to injury once in a crash. Yet older Americans depend on automobiles for meeting their transportation needs. As Mesa’s population continues to grow, the number of older drivers on our roads increase. As can be seen in the five-year graph below, the fatality trend for drivers age 65 and over is increasing.

CHART 11: OLDER DRIVER FATALITIES



TRAFFIC UNIT TYPE

For the purposes of this analysis, the Traffic Unit Types have been broken into four categories: Motor Vehicle, Motorcycle, Pedalcycle and Pedestrian. As can be seen in the table below, for the past four years, the Motor Vehicle crashes remain relatively constant while the number of Motorcycle, Pedalcycle and Pedestrian crashes fluctuate by year. In 2005, all Traffic Unit Type crashes increased.

Table 7 and Chart 13 on the next page display the percentage of each of the categories of total fatalities by traffic unit type. In Mesa during 2005, motor vehicle and motorcycle fatalities combined comprised 68.8% of all fatal crashes vs 87.1% of 2004 national fatalities. Pedestrian and pedalcycle crashes both exceeded the national percentages of fatalities.

TABLE 6: TRAFFIC UNIT TYPE - FIVE YEAR HISTORY

Unit Type \ Year	2001	2002	2003	2004	2005
Motor Vehicle	14	15	16	16	34*
Motorcycle	9	3	9	1	10
Pedalcyclist	0	1	4	2	4
Pedestrian	8	3	1	6	16
Total	31	22	30	25	64

* Includes three ATV fatal crashes.

CHART 12: TRAFFIC UNIT TYPE - FIVE YEAR HISTORY

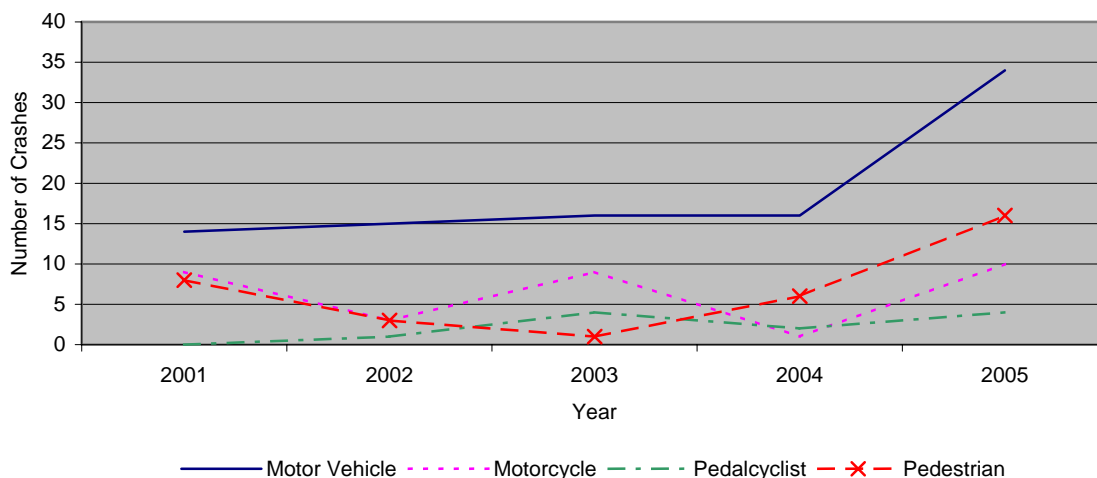
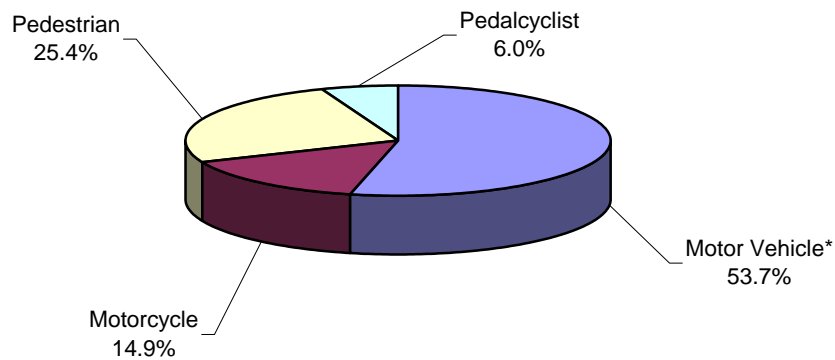


TABLE 7: TRAFFIC UNIT TYPE - TOTAL FATALITIES

Traffic Unit Type	Number	Percent of Total	2004 National Percentages
Motor Vehicle*	36*	53.7%	77.7%
Motorcycle	10	14.9%	9.4%
Pedestrian	17	25.4%	10.9%
Pedalcyclist	4	6.0%	1.7%
Total Fatalities	67	100.0%	99.7%

* Includes three ATV fatalities. **The remaining 0.3% were "Other Non-Motorists"

CHART 13: TRAFFIC UNIT TYPE - TOTAL FATALITIES



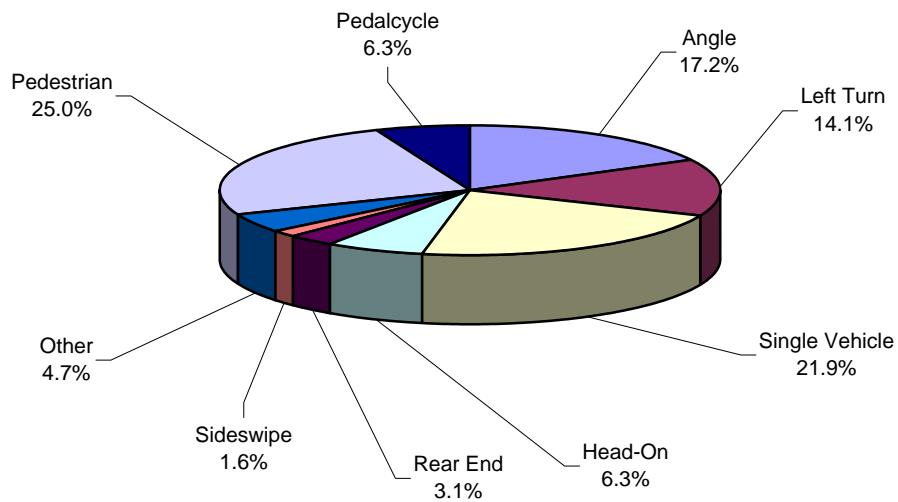
MANNER OF COLLISION

Historically, left turn and angle crashes have been the predominate manner of collision in fatal crashes. This is the first year since 2001 that pedestrian crashes have had the largest percentage of manner of collision fatal crashes with 25%.

TABLE 8: MANNER OF COLLISON

Manner of Collision	Number	Percent of Total
Angle	11	17.2%
Left Turn	9	14.1%
Single Vehicle	14	21.9%
Head-On	4	6.3%
Rear End	2	3.1%
Sideswipe	1	1.6%
Other	3	4.7%
Pedestrian	16	25.0%
Pedalcycle	4	6.3%
Total	64	100.0%

CHART 14: MANNER OF COLLISON



FACTORS CONTRIBUTING TO FATAL CRASHES

In the Police Accident Reports (PAR), the unit causing the crash or the unit most at fault is supposedly identified as Unit 1 as outlined in the *Arizona Traffic Accident Report Instruction Manual & Glossary*. The table and chart below breaks out the 2005 crashes by the contributing factors from the PARs.

Fatal crashes involving one or both of the drivers either drinking or under the influence of drugs was the leading contributing factor with 25.5%.

Speed - either “Speed Too Fast for Conditions” or “Exceeded Lawful Speed” - was a contributing factor 21.9% of the time.

TABLE 9: CAUSE OF CRASH - VIOLATION/BEHAVIOR - ALL UNITS

Contributing Factor*	Number of Incidents of Contributing Factor	Percentage of All Contributing Factors
Disregard Traffic Signal	7	6.4%
Failed to Yield Right-of-Way	21	19.1%
Ran Stop Sign	1	0.9%
Had Been Drinking/Under Infl of Drugs	28	25.5%
Speed Too Fast for Conditions	17	15.5%
Exceeded Lawful Speed	7	6.4%
Made Improper Turn	1	0.9%
Drove in Opposing Traffic Lane	3	2.7%
Inattention	1	0.9%
Did Not Use Crosswalk	4	3.6%
Other	15	13.6%
Unknown	5	4.5%
Total	110	100.0%

* One fatal crash can have more than one contributing factor and/or both units can contribute to a crash.

ALCOHOL/DRUGS AS CONTRIBUTING FACTORS

Alcohol or drugs were a contributing factor in 43.8% of all crashes and 41.8% of all fatalities.

The percentage of all 2005 fatal crashes involving possible alcohol/drug involvement was above the five year average.

In 2004, 39.1% of all fatalities nationwide involved alcohol. This was a one percentage point drop from 2003.

TABLE 10: ALCOHOL/DRUGS AS CONTRIBUTING FACTORS

Violation of Unit Causing or Most at Fault in a Crash	No. of Fatal Crashes	Drugs/Alcohol Involved	% of Fatal Crashes Drugs/Alcohol Involved
Disregard Traffic Signal	7	3	4.7%
Ran Stop Sign	1	1	1.6%
Fail to Yield Right-of-Way	19	4	6.3%
Speed Too Fast for Conditions	16	9	14.1%
Exceeded Lawful Speed	3	1	1.6%
Did Not Use Crosswalk	4	2	3.1%
Drove in Opposing Traffic Lane	3	2	3.1%
Other Violation	9	5	7.8%
Unknown Violation	2	1	1.6%
Total	64	28	43.8%

TABLE 11: ALCOHOL - FIVE YEAR TREND

Year	Total No. of Fatalities	Alcohol/Drugs Involved	Percent of All Fatal Crashes
2001	31	11	35.5%
2002	23	9	39.1%
2003	31	9	29.0%
2004	27	6	22.2%
2005	67	28	41.8%
Average	35.8	12.6	35.2%

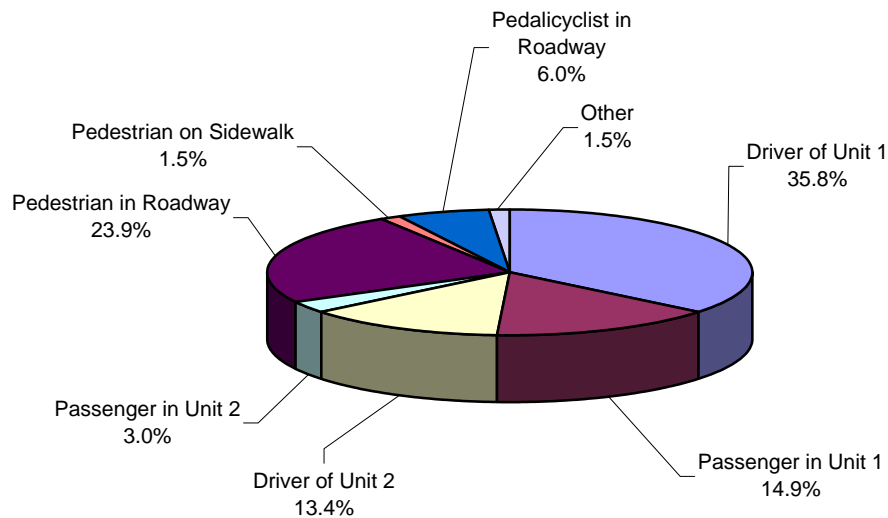
LOCATION OF VICTIM

The driver of the unit most at fault, Unit 1, had the highest frequency of fatalities among the 67 fatalities. This is partially attributable to 39.1% of the fatal crashes being angle crashes which exposed the driver of Unit 1 to Unit 2 penetration of the driver's side and single vehicle crashes.

TABLE 12: LOCATION OF VICTIM

Location	Number	Percentage of All Fatal Crashes
Driver of Unit 1	24	35.8%
Passenger in Unit 1	10	14.9%
Driver of Unit 2	9	13.4%
Passenger in Unit 2	2	3.0%
Pedestrian in Roadway	16	23.9%
Pedestrian on Sidewalk	1	1.5%
Pedalcyclist in Roadway	4	6.0%
Other	1	1.5%
Total	67	100.0%

CHART 15: LOCATION OF VICTIM



MONTH - FIVE YEAR HISTORY

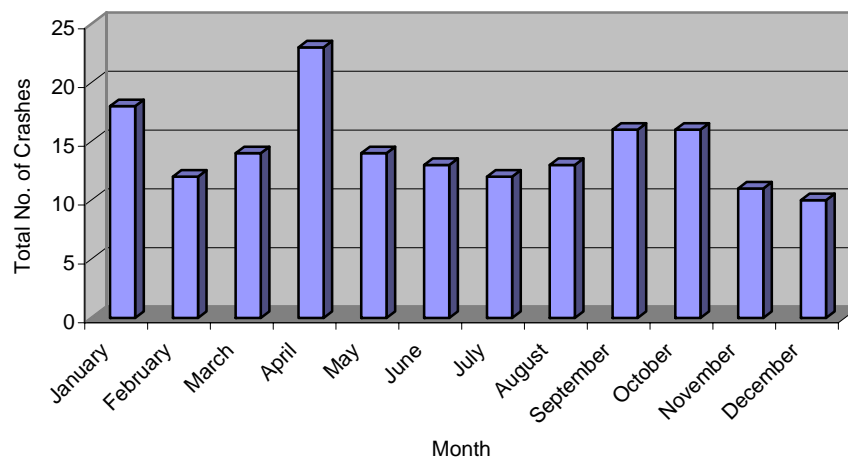
For the second year in a row, January had the highest number of crashes. Seven were motor vehicle, one was a motorcycle and one was a pedestrian. April continues to have the highest number of fatal crashes for the most recent five years.

TABLE 13: MONTH - FIVE YEAR HISTORY

Year Month	2001	2002	2003	2004	2005	Total	% of Total Fatal Crashes
January	1	1	2	⑤	⑨	18	10.5%
February	2	2	1	2	5	12	7.0%
March	4	3	3	0	4	14	8.1%
April	⑤	⑤	⑦	1	5	23	13.4%
May	⑤	2	1	2	4	14	8.1%
June	2	1	2	1	7	13	7.6%
July	2	0	2	2	6	12	7.0%
August	1	0	3	4	5	13	7.6%
September	3	2	2	3	6	16	9.3%
October	3	3	1	2	7	16	9.3%
November	1	1	3	1	5	11	6.4%
December	2	2	3	2	1	10	5.8%
Total	31	22	30	25	64	172	100.0%

○ = Month with highest frequency of fatal crashes.

CHART 16: MONTH - FIVE YEAR HISTORY



DAY - FIVE YEAR HISTORY

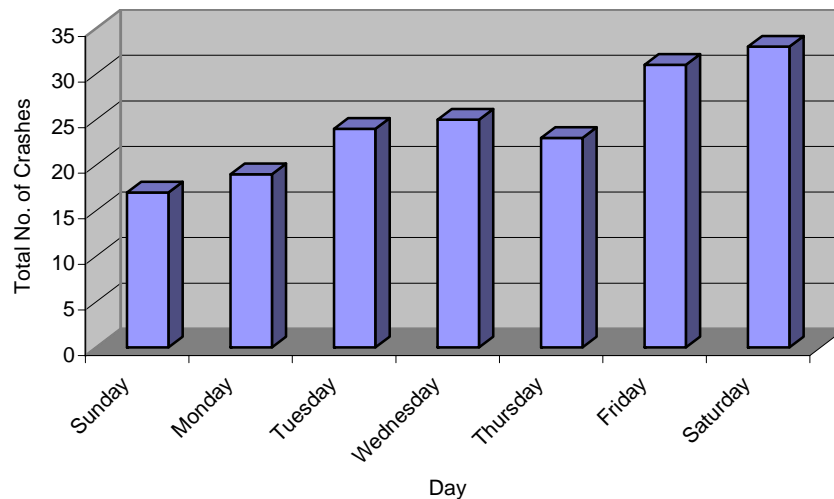
Nationally, the period 6:01 PM Friday until 6:00 AM Sunday has historically had the highest fatal crash frequency with 28.6% of all fatal crashes occurring during this period. As can be seen below, Mesa's fatalities occurred more frequently during the workweek prior to 2003, but now are starting to mirror the national trend with 35.9% of all fatal crashes occurring during the above timeframe.

TABLE 14: DAY - FIVE YEAR HISTORY

Year Day	2001	2002	2003	2004	2005	Total	% of Total Fatal Crashes
Sunday	4	4	3	1	5	17	9.9%
Monday	3	4	2	2	8	19	11.0%
Tuesday	5	⑥	5	4	4	24	14.0%
Wednesday	5	0	⑥	3	11	25	14.5%
Thursday	⑦	2	4	3	7	23	13.4%
Friday	2	4	4	⑥	⑮	31	18.0%
Saturday	5	2	6	⑥	14	33	19.2%
Total	31	22	30	25	64	172	100.0%

○ = Day with highest frequency of fatal crashes.

CHART 17: DAY - FIVE YEAR HISTORY



TIME - FIVE YEAR HISTORY

TIME OF DAY. The number of cars and trucks on Mesa’s streets at any given time of the day has a direct correlation to the likelihood of being involved in a fatal traffic crash. Until 2004, weekday evening “rush hours” had experienced the highest frequency of fatal crashes. During the past five years, 25.6% of all fatalities have occurred within the three hour block from 4:01 PM - 7:00 PM.

TABLE 15: TIME - FIVE YEAR HISTORY

Year Hour	2001	2002	2003	2004	2005	Total	% of Total Fatal Crashes
0001-0100	2	0	2	0	3	7	4.1%
0101-0200	2	2	0	0	2	6	3.5%
0201-0300	0	1	0	0	3	4	2.3%
0301-0400	0	1	0	1	2	4	2.3%
0401-0500	0	0	0	1	0	1	0.6%
0501-0600	1	0	0	2	1	4	2.3%
0601-0700	0	0	1	1	2	4	2.3%
0701-0800	1	2	2	0	2	7	4.1%
0801-0900	0	0	1	1	2	4	2.3%
0901-1000	1	2	0	0	1	4	2.3%
1001-1100	2	0	0	1	1	4	2.3%
1101-1200	2	1	2	0	0	5	2.9%
1201-1300	0	1	1	2	2	6	3.5%
1301-1400	1	1	2	2	4	10	5.8%
1401-1500	2	0	2	1	3	8	4.7%
1501-1600	2	1	2	1	3	9	5.2%
1601-1700	1	2	④	0	6	13	7.6%
1701-1800	④	④	1	1	3	13	7.6%
1801-1900	3	1	1	⑤	⑧	18	10.5%
1901-2000	3	0	3	3	2	11	6.4%
2001-2100	0	2	2	1	5	10	5.8%
2101-2200	1	0	2	1	4	8	4.7%
2201-2300	3	1	1	0	3	8	4.7%
2301-2400	0	0	1	1	2	4	2.3%
Total	31	22	30	25	64	172	100.0%

○ = Hour with highest frequency of fatal crashes.

CHART 18: DAY - FIVE YEAR HISTORY

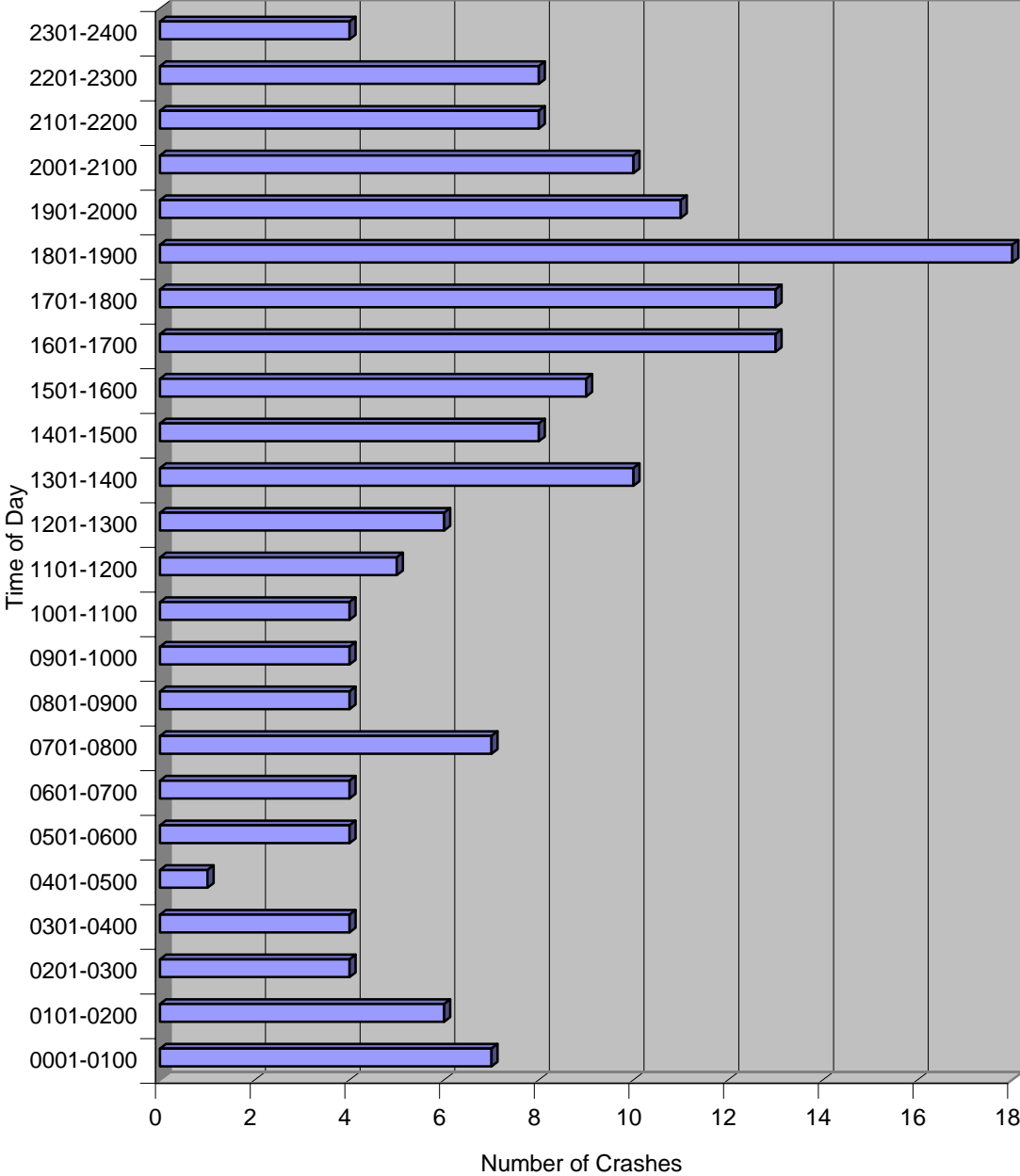


TABLE 16: TIME OF THE DAY vs MANNER OF COLLISION

In 2005, 26.6% of all fatal crashes occurred between the hours of 4:01 PM and 7:00 PM. An additional, 17.2% occurred between 7:01 PM and 10:00 PM. Of these 28 crashes, 32.1% involved alcohol or drugs as a contributing factor.

Manner Hour	Angle	Left Turn	Single Vehicle	Head- On	Rear End	Side- swipe	Other	Pedes- trian	Pedal- cyclist	Total	% of Total Fatal Crashes
0001-0100			②					①		3	4.7%
0101-0200					①		①			2	3.1%
0201-0300	①			①				①		3	4.7%
0301-0400	①		①							2	3.1%
0401-0500										0	0.0%
0501-0600			1							1	1.6%
0601-0700		①						1		2	3.1%
0701-0800	①			1						2	3.1%
0801-0900		1						1		2	3.1%
0901-1000	1									1	1.6%
1001-1100								1		1	1.6%
1101-1200										0	0.0%
1201-1300		1	1							2	3.1%
1301-1400	2		1						①	4	6.3%
1401-1500	1	1						①		3	4.7%
1501-1600		2				1				3	4.7%
1601-1700		1	1				1	3		6	9.4%
1701-1800	2	1								3	4.7%
1801-1900				①	①		1	③+	2	8	12.5%
1901-2000			②*							2	3.1%
2001-2100		1	③*					1		5	7.8%
2101-2200	1		①					②		4	6.3%
2201-2300	①			1				①		3	4.7%
2301-2400			1						①	2	3.1%
Total	11	9	14	4	2	1	3	16	4	64	100.0%

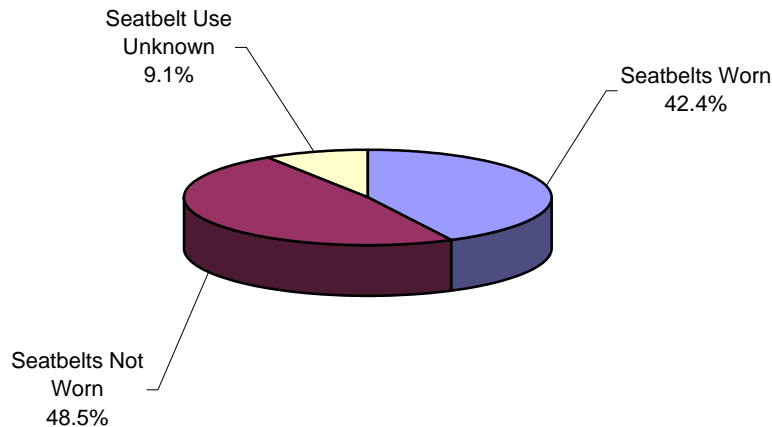
① = Fatal crash possibly involving alcohol or drugs.

* Only one of the crashes involved alcohol or drugs. + Two of the crashes involved drugs or alcohol.

SAFETY DEVICE USAGE

VICTIM RESTRAINT USAGE. There were 31 fatal crashes (33 fatalities) where the victims could have utilized restraint. The remaining victims were either on motorcycles, ATVs, pedal-cycles or were pedestrians. Of these 33 fatalities, 14 were utilizing restraint, 16 were not and three were not determined. In two of the three not determined crashes, the air bags deployed.

CHART 19: VICTIM RESTRAINT USAGE.



MOTORCYCLE HELMET USAGE. There were 10 motorcycle crashes and three ATV crashes where helmets could have been worn. In only two of the 13 fatal crashes were helmets worn.

PEDALCYCLE HELMET USAGE. There were four fatal pedalcycle crashes. Two of the victims were wearing helmets.

OTHER HELMET USAGE. There was one pedestrian crash where the pedestrian was riding a “go-ped.” This victim was not wearing a helmet.

FATAL CRASH SUMMARY

Report Number	Date	Time	Day	Location	Sex/ Age	Seat Belt	Alcohol/ Drugs	Comments
20050010992	1/1/2005	19:18	Sat	University & Ashland	M/42	No	Yes	Single vehicle. U1 left roadway colliding with utility pole. Air bag had been removed.
20050010317	1/1/2005	2:10	Sat	Extension & Southern	M/21	No	Yes	Angle. U1 ran red light. Victim was unrestrained in bed of U1.
20050150816	1/15/2005	21:54	Sat	Power & McDowell	M/47	n/a	No	Angle. U1 LT from driveway colliding with U2 in #2 lane.
20050210066	1/21/2005	1:49	Fri	University & Longmore	M/21	No	Yes	Single Vehicle. U1 left roadway colliding with several objects. Victim - passenger.
20050240359	1/24/2005	13:17	Mon	Val Vista & Caballero	M/83	n/r	No	Angle. U1 LT from driveway colliding with U2 in #1 lane.
20050260801	1/26/2005	18:42	Wed	McKellips & Center	M/46	n/a	Yes	Pedestrian. U1 (Ped) crossing arterial midblock. U2 traveling in #3 lane.
20050280874	1/28/2005	19:59	Fri	University & Date	M/17	n/a	No	Angle. U1 FTY at stop sign. U2 in #2 lane.
20050290107	1/29/2005	3:06	Sat	Lehi & Lazona	M/25 M/30	No No	Yes	Single vehicle. U1 lost control and rolled. Victims passengers.
20050290702	1/29/2005	19:55	Sat	Baseline & Meridian	M/64	n/r	Unk	Single Vehicle. U1 left roadway colliding with street light.
20050350103	2/4/2005	6:10	Fri	Higley & McDowell	F/55	Yes	Yes	Left Turn. U1 LT on red. U2 ran red in #2 lane.
20050420841	2/11/2005	20:18	Fri	Country Club & 6th St	M/18	n/a	Unk	Single Vehicle. U1 (MC) lost control while braking.
20050420846	2/11/2005	20:36	Fri	Stapley & University	M/6	Yes	No	Left Turn. U1 LT on green. U2 in # 1 lane.
20050560205	2/25/2005	8:12	Fri	University & Power	F/79	Yes	No	Left Turn. U1 LT on yellow. U2 in #2 lane.
20050570061	2/26/2005	1:04	Sat	Broadway & Val Vista	M/56	No	Yes	Rear End. U1 colliding with U2 stopped for red in #2 lane.
20050660376	3/7/2005	12:02	Mon	Main & Lindsay	F/70	Yes	No	Left Turn. U1 LT on green. U2 in #1 lane.
20050671124	3/8/2005	23:45	Tue	Iron & Revere	M/20	n/a	Unk	Single Vehicle. U1 (MC) left roadway colliding with wall.
05-42309	3/10/2005	:24	Thu	Broadway & 90th St	M/23	No	Yes	Single Vehicle. U1 left roadway colliding with wall in construction zone.
20050840655	3/25/2005	16:49	Fri	Gable & Doran	F/37	n/a	Unk	Single Vehicle. U2 jumped on hood of U1 and fell off.
20050970592	4/7/2005	14:41	Thu	University & 22nd Pl	M/94	n/r	No	Angle. U1 LT from driveway colliding with U2 in #1 lane.
20051010552	4/11/2005	15:00	Mon	Lindsay & Huber	M/15	n/a	Yes	Pedestrian. U2 (Ped) on sidewalk when U1 left roadway colliding with U2.

FATAL CRASH SUMMARY (Continued)

Report Number	Date	Time	Day	Location	Sex/ Age	Seat Belt	Alcohol/ Drugs	Comments
20051070194	4/17/2005	5:40	Sun	McDowell & Lindsay	M/27 M/21	No No	Unk	Single Vehicle. U1 left roadway colliding with tree.
20051170564	4/27/2005	15:19	Wed	Broadway & Val Vista	F/27	Yes	No	Left Turn. U1 LT on yellow. U2 in unk lane.
20051180784	4/28/2005	18:07	Thu	Baseline & SR 202 On-Ramp	M/83	Yes	Yes	Head On. U1 moved left of center colliding with U2 & U3.
20051280409	5/8/2005	12:37	Sun	McDowell & Higley	M/77	Yes	No	Single Vehicle. U1 collided with bridge pillar. Note indicated suicide.
20051290701	5/9/2005	17:04	Mon	Southern & Country Club	M/47	n/a	No	Pedalcycle. U1(Bike) attempted to ride around U2 departing drive.
20051330964	5/13/2005	21:52	Fri	Ivy & Papillon	M/24	n/a	Yes	Single Vehicle. U1 (ATV) lost control colliding with wall.
20051460786	5/25/2005	18:09	Wed	Southern & Mesa	M/60	Yes	Yes	Rear End. U1 colliding with U2 stopped for red in #1 lane. U2 pushed into U3 & U4 in LT lane.
20051520820	6/1/2005	18:08	Wed	1st St & Mesa	M/35	No	No	Other Manner. U1 backing and victim jumped from U1.
20051550035	6/4/2005	:47	Sat	Dobson & 8th St	M/36	Yes	Yes	Single Vehicle. U1 departed roadway colliding with light pole.
20051610871	6/10/2005	22:17	Fri	Mesa & Broadway	M/53	Yes	No	Head On. U1 moved left of center colliding with U2 & U3.
20051660214	6/15/2005	7:56	Wed	Ellsworth & Warner	M/52	Yes	No	Head On. U1 moved left of center colliding with U2.
20051710665	6/20/2005	18:09	Mon	Stapley & Inverness	M/66	n/a	No	Pedestrian. U1 LT colliding with U2 (Ped) in x-walk on arterial.
20051790608	6/28/2005	16:55	Tue	23rd Pl & Fox	F/1	n/a	No	Pedestrian. U2 (Ped) ran into residential street in front of U1.
20051800805	6/29/2005	21:27	Wed	Country Club & Hampton	M/45	n/a	Yes	Pedestrian. U1 (Ped) ran into arterial x-walk against light colliding with U2 in #3 lane.
20051830070	7/2/2005	:56	Sat	Stapley & Broadway	M/38	n/a	Yes	Pedestrian. U1 (Ped) ran across arterial midblock colliding with U2 in #2 lane.
20051870876	7/6/2005	21:40	Wed	Main & 38th St	F/54	n/a	Yes	Pedestrian. U1 LT colliding with U2 (Ped) in x-walk on arterial.
20051870179	7/6/2005	8:05	Wed	Country Club & Juanita	M/81	n/a	No	Pedestrian. U1 (Ped) crossing arterial midblock. U2 traveling in #3 lane.
20051980465	7/17/2005	16:32	Sun	Lindsay & Inca	F/18	Yes	No	Other Manner. U1 attempted to make LT or U-turn in front of U2.
20052000313	7/19/2005	10:28	Tue	82nd St & Southern	M/86	n/a	No	Pedestrian. U1 backed out of driveway colliding with U2 (Ped) in roadway.
20052120114	7/31/2005	2:23	Sun	Dobson & Southern	M/25	No	Yes	Head On. U1 moved left of center colliding with U2.

FATAL CRASH SUMMARY (Continued)

Report Number	Date	Time	Day	Location	Sex/ Age	Seat Belt	Alcohol/ Drugs	Comments
20052170415	8/5/2005	13:14	Fri	Higley & Hampton	M/37	No	No	Angle. U1 ran red light. Victim was unrestrained in bed of U2.
20052180478	8/6/2005	16:02	Sat	Power & Hampton	M/18	n/a	Unk	Pedestrian. U1 (Ped) crossing arterial midblock. U2 traveling in #2 lane.
20052200499	8/8/2005	15:06	Mon	Val Vista & Inverness	M/23	No	No	Sideswipe Same. U1 lost control colliding with U2.
20052300713	8/18/2005	17:59	Thu	McKellips & Stapley	M/29	n/a	No	Left Turn. U1 (MC) ran red colliding with LTing U2.
20052300919	8/18/2005	21:14	Thu	Greenfield & Main	F/81 F/76	n/a n/a	No	Pedestrian. U1 & U2 (Peds) crossing arterial midblock. U3 in #3 lane.
20052520475	9/9/2005	14:12	Fri	Southern & Stapley	F/4 mo.	No	No	Left Turn. U1 LT on yellow. U2 in #2 lane.
20052270054	9/14/2005	2:29	Wed	Alma School & Keats	M/35	n/a	Yes	Pedestrian. U1 (Ped) crossing arterial midblock on go-ped. U2 traveling in #2 lane.
20052580146	9/15/2005	6:45	Thu	8th St & Alma School	F/16	n/a	No	Pedestrian. U1 RT colliding with U2 (Ped) in x-walk.
20052590698	9/16/2005	17:32	Fri	Main & Roosevelt	M/53	n/a	No	Angle. U1 LT from drive colliding with U2 (MC) in #1 lane.
20052660646	9/23/2005	17:39	Fri	Baseline & Longmore	M/14	n/a	No	Pedalcycle. U1 ran red light colliding with U2 (Bike) in x-walk.
20052670206	9/24/2005	7:04	Sat	Val Vista & US 60 Off-Ramp	M/51	Yes	Yes	Angle. U1 ran red colliding with U2 - U4.
20052760858	10/3/2005	20:50	Mon	Gable & Solomon	M/25	n/a	Yes	Single Vehicle. U1 (ATV) ran stop sign colliding with wall.
20052800259	10/7/2005	9:05	Fri	Mesa & 1st St	M/69	No	No	Angle. U1 ran red colliding with U2.
20052810942	10/8/2005	22:27	Sat	Balsam & Baywood	M/26	n/a	Yes	Pedestrian. U2 (Ped) struck driver of U1 through window. U1 accelerated dragging U2 under U1.
20052910603	10/18/2005	16:01	Tue	Baseline & Gilbert	M/23	n/a	Unk	Single Vehicle. U1 (ATV) lost control colliding with pavement.
20052921087	10/19/2005	23:38	Wed	Baseline & Rogers	M/47	n/a	Yes	Pedalcycle. U1 (Bike) crossing arterial in unmarked x-walk colliding with U2 in #2 lane.
20052990855	10/26/2005	18:47	Wed	Broadway & 72nd St	M/68	n/a	Yes	Pedestrian. U1 (Ped) crossing arterial midblock colliding with U2 in #2 lane.
20053020477	10/29/2005	13:01	Sat	Milagro & Monte	M/24	n/a	No	Single Vehicle. U1 (MC) hit speed hump, lost control colliding with tree.
20053180686	11/14/2005	16:46	Mon	Main & Sossaman	M/46	n/a	No	Left Turn. U1 (MC) LT on red arrow colliding with U2 in #3 lane.

FATAL CRASH SUMMARY (Continued)

Report Number	Date	Time	Day	Location	Sex/ Age	Seat Belt	Alcohol/ Drugs	Comments
20053210969	11/17/2005	20:30	Thu	Signal Butte & Baseline	M/33	n/a	No	Single Vehicle. U1 (MC) lost control striking fence.
20053230554	11/19/2005	15:48	Sat	Broadway & Val Vista	M/54	Yes	No	Left Turn. U1 LT on green colliding with U2 in #2 lane.
20053230149	11/19/2005	3:38	Sat	Alma School & Guadalupe	F/28	No	Yes	Angle. U1 ran red colliding with U2 in #2 lane.
20053310403	11/27/2005	13:58	Sun	Brown & Lindsay	F/44	n/a	Yes	Pedalcycle. U1 (Bike) crossing arterial midblock colliding with U2 in #1 lane.
20053640980	12/30/2005	22:14	Fri	Extension & Naranja	M/22	n/a	Yes	Angle. U1 (MC) lost control crashing with U2.