2008

MISSOURI

EMERGENCY SERVICE VEHICLE

CRASHES

MISSOURI STATE HIGHWAY PATROL
STATISTICAL ANALYSIS CENTER
1510 East Elm
Jefferson City, Missouri 65101
(573) 751-9000

FOREWORD

The mission of the Missouri Department of Transportation, Highway Safety Division is to reduce the number and severity of traffic crashes throughout the state. In order to develop effective traffic safety programs and countermeasures, reliable statistical planning documents are imperative.

For this reason, the 2008 Missouri Emergency Vehicle Crashes report was produced by the Statistical Analysis Center of the Missouri State Highway Patrol at the request of the Highway Safety Division.

The dedication of the individuals who compiled this report is to be commended. Without their diligence and expertise, Missouri officials would be hard-pressed to have this statistical data available in such a usable format.

It is our desire that traffic safety officials and managers of emergency vehicles would carefully review this publication to analyze local crash experience and evaluate their operations to ensure that proper precautions and training measures have been implemented.

If you require more information on traffic safety programs or need additional statistical information, please contact the Missouri Department of Transportation, Highway Safety Division at 1-800-800-2358.

Leanna Depue, Highway Safety Director
MoDOT Highway Safety Division

ACKNOWLEDGEMENTS

The Missouri Department of Transportation, Highway Safety Division requested publication of this report to determine the magnitude, severity, and characteristics of traffic crashes involving emergency service vehicles in the State.

The primary source of information in this report was traffic crash data obtained from the State-wide Traffic Accident Records System (STARS). The Missouri State Highway Patrol, Traffic Records Division, is responsible for coordinating the STARS program as well as encoding all traffic crash data being reported.

Special recognition is given to all Missouri law enforcement agencies and officers who provide traffic crash investigation services on Missouri roadways and report their findings to STARS. Because of their efforts, traffic safety authorities have the capability of conducting analysis on Missouri's emergency service vehicle traffic crash problems.

Finally, the U.S. Department of Transportation, National Highway Traffic Safety Administration, has supported the Statistical Analysis Center's efforts to provide meaningful research services and publications to Missouri traffic safety authorities. Their financial support and technical assistance is appreciated.

Ronald G. Beck, Director
Statistical Analysis Center
Missouri State Highway Patrol

CONTENTS

PAGE

TABLES

PAGE

EMERGENCY SERVICE VEHICLE INVOLVEMENT OVERVIEW

POLICE VEHICLE INVOLVEMENT

FIRE VEHICLE INVOLVEMENT

TABLES

FIGURES

PAGE

EMERGENCY SERVICE VEHICLE INVOLVEMENT OVERVIEW

EXECUTIVE SUMMARY

The purpose of this report is to provide the Missouri State Highway Patrol, the Missouri Department of Transportation, Highway Safety Division, and other State and local authorities with information on the problem of emergency service vehicle traffic crashes in the State of Missouri. In 2008, Missouri experienced 1,385 emergency service vehicle traffic crashes. Crashes of this nature are of special concern to traffic safety authorities because emergency service vehicles and, more importantly, their staff are critical public safety resources whose loss due to traffic crashes adversely affects the public welfare.

The primary source of data used in this study was the Missouri Statewide Traffic Accident Records System (STARS).

In 2008, 1,423 emergency service vehicles were involved in crashes in the State. Four persons were killed and 371 persons were injured in these traffic crashes. Of the 1,423 emergency service vehicles involved, 342 (24.0%) were on an emergency run at the time of the crash. The seriousness of these traffic crashes is compounded by the fact that the incident no doubt delayed or prevented the unit from responding to the original emergency situation.

Police vehicles account for the majority of emergency service vehicles involved in Missouri traffic crashes. Of the 1,423 emergency vehicles involved in 2008 traffic crashes, 1,092 (76.7%) were law enforcement vehicles. This finding is not surprising since there are a significantly greater number of police vehicles in operation compared to ambulances and fire vehicles. In addition, many law enforcement units patrol Missouri roadways throughout their shift, while ambulances and fire vehicles are normally stationed at fixed locations until called to respond to a situation.

Of the 1,423 emergency vehicles involved in 2008 Missouri traffic crashes, 149 (10.5%) were fire vehicles. Although no accurate count is available, the number of fire vehicles in the State is estimated to be larger than the ambulance vehicle population but much less than the police vehicle population. As with ambulances, fire vehicles made up a higher proportion of those vehicles involved in traffic crashes while on emergency runs. Of the 342 vehicles making an emergency run when involved in a traffic crash in 2008, 71 (20.8%) were vehicles of this type.

Of the 1,423 emergency service vehicles involved in 2008 Missouri traffic crashes, 154 (10.8%) were ambulances. Ambulances also made up a higher proportion of emergency service vehicles involved in traffic crashes while making emergency runs. Of the 342 emergency service vehicles involved in 2008 Missouri traffic crashes while on emergency runs, 49 (14.3%) were ambulances.

INTRODUCTION

This report is one in a series which identifies the magnitude, severity, and characteristics of emergency service vehicles involved in traffic crashes occurring in the State of Missouri. It describes Missouri's emergency service vehicle traffic crash experience in 2006 - 2008 with emphasis on the most recent year (2008).

Missouri traffic safety authorities have expressed an interest in studying these types of incidents for a number of reasons. First, in a sizable portion of these incidents, the emergency service vehicles are responding to other emergency situations. In most instances, their involvement in traffic crashes either delays or totally prevents them from providing the emergency care services being requested. The timeliness of providing their services can be a critical factor in preventing further death, serious injury, and/or property damage in emergency situations.

Second, emergency service vehicles and, more importantly, the staff who operate them are critical public safety resources which the community can ill afford to lose as a result of their involvement in traffic crashes. Costs associated with vehicle replacement or repair are high because these types of vehicles are configured for emergency response (i.e., heavy suspension systems, larger engines, improved braking systems, emergency lights, siren, etc.). Even more significant are losses resulting from qualified emergency service staff being killed or injured in these traffic crashes. The loss of technically trained emergency service manpower reduces the community's capabilities to adequately respond to future emergency situations.

Finally, emergency vehicles involved in traffic crashes can result in death and injury to not only emergency vehicle staff but to other parties involved in the traffic crash.

Data used in this study were obtained from the Missouri Statewide Traffic Accident Records System (STARS). This system is maintained by the Missouri State Highway Patrol (MSHP). In accordance with State statute, law enforcement agencies are required to investigate traffic crashes occurring on public roadways if they involve a death or personal injury or property damage over $500.00. They submit their findings manually or electronically on a standard traffic accident report form to the STARS system. This standard traffic accident report form contains two fields designed to identify whether the vehicles involved were emergency service vehicles, the type of emergency service vehicle (police, fire, ambulance, or other), and whether or not it was on an emergency run.

Data from the traffic accident report forms are encoded by MSHP staff in computerized files. These files were made available to the MSHP Statistical Analysis Center (SAC) staff who conducted the analysis.

Not all motor vehicle incidents involving damage to emergency service vehicles or injury to its staff were analyzed in this study due to data non-availability. Data on traffic crashes occurring on private property, such as a private driveway, were not attainable for this analysis. In addition, certain incidents are not classified as traffic crashes. For instance, cases where police establish a roadblock and a pursued person uses their vehicle to intentionally ram the blocking police vehicle are not classified as traffic crashes and are not included in this analysis.

The findings from this study are described in the following four sections. The first section provides an overview of Missouri's emergency services traffic crash problem. The second section describes the findings from an analysis which focuses on police vehicle involvement. The third section describes fire vehicle involvement and the last section covers ambulance involvement.

1.0 EMERGENCY SERVICE VEHICLE INVOLVEMENT OVERVIEW

This section presents a series of data displays which describe Missouri's emergency service vehicle traffic crash activity. Traffic crashes involving emergency service vehicles are defined as any crash in which one or more emergency service vehicles were directly involved in the incident. Emergency service vehicles include those assigned to law enforcement agencies, fire departments, and ambulance service agencies. In addition, vehicles operated by other agencies, such as public utilities and public service corporations, are considered emergency vehicles but only when they are actually performing emergency services.

SUMMARY OF ANALYSIS

- In 2008 there were 1,385 traffic crashes involving 1,423 emergency service vehicles in the State of Missouri. Four persons were killed and 371 persons were injured in these traffic crashes. One person was killed or injured every 23.4 hours in these types of crashes in 2008.

- Police vehicles comprise the largest number of emergency service vehicles involved in Missouri's traffic crashes. Of the 1,423 emergency service vehicles involved, 1,092 (76.7%) were police vehicles. A total of 342 emergency service vehicles were on emergency runs when the traffic crash occurred. Of these, 195 (57.0%) were police vehicles. Law enforcement officers on-duty annual miles of travel are, no doubt, much greater than other types of emergency service providers. A large proportion of law enforcement officers are assigned to patrol Missouri's roadways throughout their normal shift of operations for crime prevention purposes as well as to provide quick response to calls for services. Normally, fire and ambulance service personnel are stationed at fixed loca tions from which they respond to emergency situations. In addition, there are larger numbers of police vehicles working Missouri's roadways than either ambulances or fire vehicles. The fact that law enforcement officers' on-duty miles of travel are substantially greater increases their risk of being involved in traffic crashes.

- Ambulances were the second most frequent emergency vehicle type involved in Missouri's 2008 traffic crashes. Of the 1,423 emergency vehicles involved, 154 (10.8%) were ambulances. Like fire vehicles, ambulances were more likely to be involved in a traffic crash when on an emergency run. Of the 342 emergency vehicles on emergency run when the traffic crash occurred, 14.3% were ambulances.

- Fire vehicles were the third most common type of emergency vehicle involved in Missouri's traffic crashes in 2008. Of the 1,423 emergency vehicles involved in 2008 Missouri traffic crashes, 149 (10.5%) were fire vehicles. Of the 342 emergency vehicles on emergency run at the time of the traffic crash, 71 (20.8%) were fire vehicles.

- Emergency vehicles classified as 'Other' made up a small proportion of those involved in Missouri's 2008 traffic crashes. Of the 1,423 emergency vehicles involved, only 28 (2.0%) were emergency vehicles classified as 'Other'.

2008 MISSOURI TRAFFIC CRASHES

EMERGENCY SERVICE (ES) VEHICLE INVOLVEMENT

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
ES VEHICLE INVOLVED	4	0.5	256	0.7	1,125	1.0	1,385	0.9
NO ES VEHICLE INVOLVED	841	99.5	37,784	99.3	115,839	99.0	154,464	99.1
TOTAL	845	100.0	38,040	100.0	116,964	100.0	155,849	100.0

TABLE 1.0.1

MISSOURI EMERGENCY SERVICE VEHICLE INVOLVED CRASHES

2006 - 2008

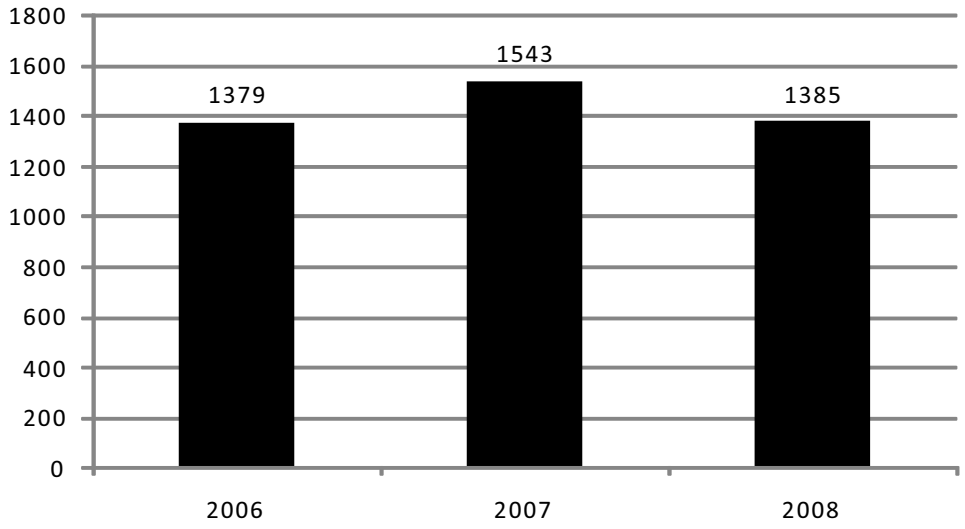


FIGURE 1.0.1

MISSOURI EMERGENCY SERVICE VEHICLE PERSONAL INJURY PROBLEM ANALYSIS CLOCK

2008

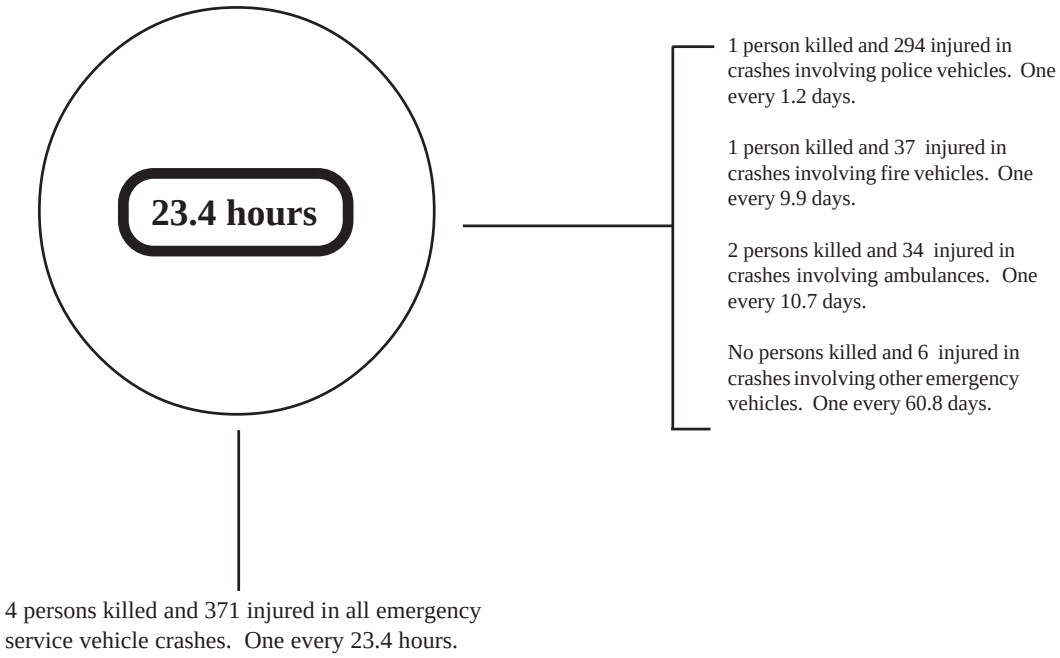


FIGURE 1.0.2

2008 MISSOURI EMERGENCY SERVICE (ES) VEHICLE CRASHES

TYPE OF EMERGENCY SERVICE VEHICLE INVOLVED

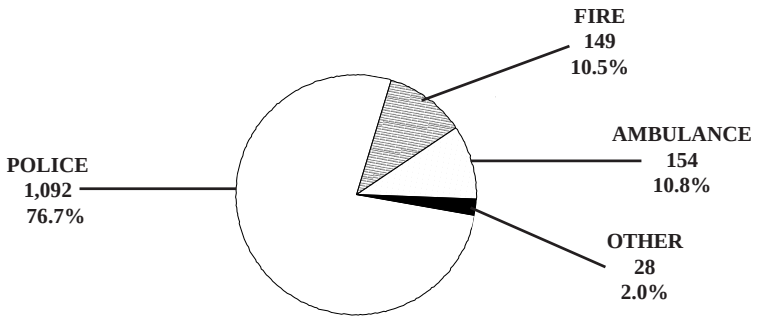
	FATAL	PERSONAL INJURY	PROPERTY DAMAGE	TOTAL	NUMBER OF ES VEHICLES INVOLVED[1]
TOTAL NUMBER OF ES VEHICLE CRASHES	**4**	**256**	**1,125**	**1,385**	**1,423**
INVOLVING					
POLICE VEHICLE	1	215	876	1,092	1,092
FIRE VEHICLE	1	25	123	149	149
AMBULANCE	2	23	129	154	154
OTHER ES VEHICLE	0	4	23	27	28

[1]The number of emergency service vehicles involved does not equal the number of emergency service traffic crashes since there are cases where more than one emergency service vehicle was involved in the same traffic crash. There were 1,385 traffic crashes involving 1,423 emergency service vehicles

TABLE 1.0.2

TYPE OF EMERGENCY SERVICE VEHICLES INVOLVED IN

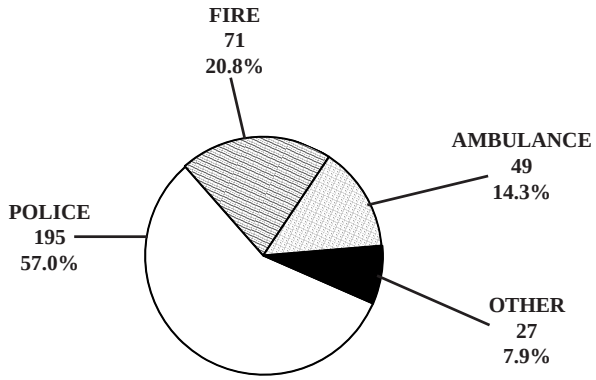
2008 MISSOURI TRAFFIC CRASHES



TOTAL = 1,423

FIGURE 1.0.3

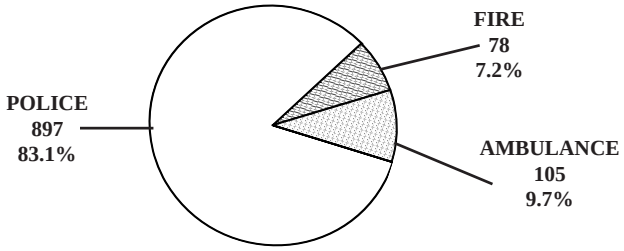
TYPE OF EMERGENCY SERVICE VEHICLES INVOLVED IN 2007 MISSOURI TRAFFIC CRASHES WHILE ON EMERGENCY RUN



TOTAL = 342

FIGURE 1.0.4

TYPE OF EMERGENCY SERVICE VEHICLES INVOLVED IN 2007 MISSOURI TRAFFIC CRASHES NOT ON EMERGENCY RUN



TOTAL = 1,081

FIGURE 1.0.5

2.0 POLICE VEHICLE INVOLVEMENT

This section presents a series of data displays identifying police vehicle involvement in Missouri's traffic crash activity. Police vehicle traffic crashes are defined as any crash in which one or more police vehicles were directly involved in the incident. Data displays also are provided which describe characteristics of the police vehicle drivers involved in these traffic crashes.

2008 SUMMARY ANALYSIS

- In 2008, there were 1,066 traffic crashes involving one or more police vehicles in the State of Missouri. One person was killed and 294 were injured in these crashes.
- In 17.7% of the traffic crashes involving police vehicles, the police vehicle was on an emergency run at the time of the incident.
- In 2008, one person was killed or injured in a police vehicle related crash every 1.2 days in the State of Missouri.
- Of all 2008 crashes involving police vehicles, the first harmful event in 45.6% of the cases involved one motor vehicle in transport striking another motor vehicle in transport. In 25.1% of the cases, it involved a motor vehicle striking a fixed object. In 17.1% of the cases, the vehicle struck an animal.
- Of all 2008 crashes involving police vehicles, 50.6% occurred in a rural area of the State and 49.4% occurred in an urban area.
- Of all police vehicle drivers in 2008 traffic crashes, 90.8% were male and 9.2% were female. The average age of the police vehicle driver was 35.0 years.
- There were 1,092 police vehicles in the 1,066 traffic crashes in the State. Of these, 956 or 87.7% were automobiles.

2008 POLICE VEHICLE INVOLVED CRASHES

EMERGENCY RUN STATUS

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%	TOTAL NUMBER[1] KILLED	TOTAL NUMBER[1] INJURED	POLICE VEHICLE DRIVERS/PASSENGERS[2] KILLED	POLICE VEHICLE DRIVERS/PASSENGERS[2] INJURED
POLICE VEHICLE ON RUN	0	0.0	53	25.7	136	15.8	189	17.7	0	74	0	62
POLICE VEHICLE NOT ON RUN	1	100.0	153	74.3	723	84.2	877	82.3	1	220	1	169
TOTAL	1	100.0	206	100.0	859	100.0	1,066	100.0	1	294	1	231

[1]This statistic indicates the total number of persons killed and injured in a crash where one or more police vehicles were involved.

[2]This statistic indicates the number of police vehicle drivers and passengers killed and injured.

TABLE 2.0.1

2006 and 2008 POLICE VEHICLE INVOLVED CRASH ANALYSIS

	2007	2008	RATE OF CHANGE
FATAL	5	1	-80.0
PERSONAL INJURY	213	206	-3.3
PROPERTY DAMAGE	969	859	-11.4
TOTAL	1,187	1,066	-10.2

TABLE 2.0.2

2008 POLICE VEHICLE INVOLVED CRASHES

CRASH TYPE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
ANIMAL	0	0.0	9	4.4	173	20.1	182	17.1
BICYCLIST	0	0.0	2	1.0	2	0.2	4	0.4
FIXED OBJECT	0	0.0	39	18.9	228	26.5	267	25.1
OTHER OBJECT	1	100.0	1	0.5	38	4.4	40	3.8
PEDESTRIAN	0	0.0	7	3.4	0	0.0	7	0.7
TRAIN	0	0.0	0	0.0	0	0.0	0	0.0
VEHICLE IN TRANSPORT	0	0.0	139	67.5	347	40.4	486	45.6
VEHICLE ON OTHER ROADWAY	0	0.0	1	0.5	1	0.1	2	0.2
PARKED VEHICLE	0	0.0	5	2.4	54	6.3	59	5.5
NON-COLLISION OVERTURN	0	0.0	3	1.5	2	0.2	5	0.5
NON-COLLISION OTHER	0	0.0	0	0.0	14	1.6	14	1.3
TOTAL	1	100.0	206	100.0	859	100.0	1,066	100.0

TABLE 2.0.3

2008 POLICE VEHICLE INVOLVED CRASHES

AREA CLASSIFICATION BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
URBAN	1	100.0	111	53.9	415	48.3	527	49.4
RURAL	0	0.0	95	46.1	444	51.7	539	50.6
TOTAL	1	100.0	206	100.0	859	100.0	1,066	100.0

TABLE 2.0.4

2008 POLICE VEHICLE INVOLVED CRASHES

ROAD CURVATURE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
STRAIGHT	0	0.0	172	83.5	702	82.7	874	82.8
CURVE	1	100.0	34	16.5	147	17.3	182	17.2
UNKNOWN	0	-	0	-	10	-	10	-
TOTAL	1	100.0	206	100.0	859	100.0	1,066	100.0

TABLE 2.0.5

2008 POLICE VEHICLE INVOLVED CRASHES

ROAD INCLINE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
LEVEL	1	100.0	128	62.1	544	64.2	673	63.9
HILL	0	0.0	71	34.5	289	34.1	360	34.2
CREST	0	0.0	7	3.4	14	1.7	21	2.0
UNKNOWN	0	-	0	-	12	-	12	-
TOTAL	1	100.0	206	100.0	859	100.0	1,066	100.0

TABLE 2.0.6

2008 POLICE VEHICLE INVOLVED CRASHES

ROAD CONDITIONS BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
DRY	1	100.0	153	74.3	645	75.8	799	75.5
WET	0	0.0	39	18.9	138	16.2	177	16.7
SNOW	0	0.0	4	1.9	29	3.4	33	3.1
ICE	0	0.0	9	4.4	35	4.1	44	4.2
SLUSH	0	0.0	0	0.0	1	0.1	1	0.1
MUD	0	0.0	0	0.0	2	0.2	2	0.2
MOVING WATER	0	0.0	1	0.5	1	0.1	2	0.2
UNKNOWN	0	-	0	-	8	-	8	-
TOTAL	1	100.0	206	100.0	859	100.0	1,066	100.0

TABLE 2.0.7

2008 POLICE VEHICLE INVOLVED CRASHES

HIGHWAY CLASSIFICATION BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
INTERSTATE	0	0.0	14	6.8	71	8.3	85	8.0
U.S. HIGHWAY	0	0.0	28	13.6	95	11.1	123	11.5
STATE NUMBERED	0	0.0	45	21.8	161	18.7	206	19.3
SINGLE STATE LETTERED	0	0.0	11	5.3	68	7.9	79	7.4
DOUBLE STATE LETTERED	0	0.0	8	3.9	19	2.2	27	2.5
OUTER ROAD	0	0.0	1	0.5	12	1.4	13	1.2
COUNTY ROAD	0	0.0	15	7.3	76	8.9	91	8.5
CITY STREET	1	100.0	74	35.9	311	36.2	386	36.2
INTERSTATE LOOP	0	0.0	0	0.0	1	0.1	1	0.1
OTHER[1]	0	0.0	10	4.9	45	5.2	55	5.2
TOTAL	1	100.0	206	100.0	859	100.0	1,066	100.0

[1] "Other" includes types of roads that are maintained by the State as well as by local jurisdictions.

TABLE 2.0.8

2008 POLICE VEHICLE INVOLVED CRASHES

HIGHWAY CLASSIFICATION BY AREA CLASSIFICATION AND CRASH SEVERITY

	URBAN								RURAL							
	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
INTERSTATE	0	0.0	9	8.1	31	7.5	40	7.6	0	0.0	5	5.3	40	9.0	45	8.4
U.S. HIGHWAY	0	0.0	16	14.4	26	6.3	42	8.0	0	0.0	12	12.6	69	15.5	81	15.0
STATE NUMBERED	0	0.0	17	15.3	52	12.5	69	13.1	0	0.0	28	29.5	109	24.6	137	25.4
SINGLE STATE LETTERED	0	0.0	1	0.9	11	2.7	12	2.3	0	0.0	10	10.5	57	12.8	67	12.4
DOUBLE STATE LETTERED	0	0.0	2	1.8	2	0.5	4	0.8	0	0.0	6	6.3	17	3.8	23	4.3
OUTER ROAD	0	0.0	1	0.9	4	1.0	5	1.0	0	0.0	0	0.0	8	1.8	8	1.5
COUNTY ROAD	0	0.0	1	0.9	8	1.9	9	1.7	0	0.0	14	14.7	68	15.3	82	15.2
CITY STREET	1	100.0	60	54.1	250	60.2	311	59.0	0	0.0	14	14.7	61	13.7	75	13.9
INTERSTATE LOOP	0	0.0	0	0.0	1	0.2	1	0.2	0	0.0	0	0.0	0	0.0	0	0.0
OTHER [1]	0	0.0	4	3.6	30	7.2	34	6.5	0	0.0	6	6.3	15	3.4	21	3.9
TOTAL	1	100.0	111	100.0	415	100.0	527	100.0	0	0.0	95	100.0	444	100.0	539	100.0

[1] "Other" includes types of roads that are maintained by the State as well as by local jurisdictions.

TABLE 2.0.9

2008 POLICE VEHICLE INVOLVED CRASHES

MONTH OF YEAR

MONTH	FREQUENCY	PERCENT
JANUARY	105	9.9
FEBRUARY	92	8.6
MARCH	77	7.2
APRIL	74	6.9
MAY	81	7.6
JUNE	98	9.2
JULY	81	7.6
AUGUST	94	8.8
SEPTEMBER	69	6.5
OCTOBER	99	9.3
NOVEMBER	87	8.2
DECEMBER	109	10.2
TOTAL	1,066	100.0

TABLE 2.0.10

2008 POLICE VEHICLE INVOLVED CRASHES

DAY OF WEEK

DAY	FREQUENCY	PERCENT
SUNDAY	135	12.7
MONDAY	145	13.6
TUESDAY	170	16.0
WEDNESDAY	138	13.0
THURSDAY	162	15.2
FRIDAY	158	14.8
SATURDAY	157	14.7
TOTAL	1,065	100.0

Unknown Data Not Included

TABLE 2.0.11

2008 POLICE VEHICLE INVOLVED CRASHES

HOUR OF DAY

HOUR	FREQUENCY	PERCENT
12:01A - 12:59A	60	5.6
01:00A - 01:59A	66	6.2
02:00A - 02:59A	40	3.8
03:00A - 03:59A	22	2.1
04:00A - 04:59A	23	2.2
05:00A - 05:59A	20	1.9
06:00A - 06:59A	28	2.6
07:00A - 07:59A	37	3.5
08:00A - 08:59A	51	4.8
09:00A - 09:59A	43	4.1
10:00A - 10:59A	36	3.4
11:00A - 11:59A	34	3.2
NOON - 12:59P	31	2.9
01:00P - 01:59P	32	3.0
02:00P - 02:59P	67	6.3
03:00P - 03:59P	49	4.6
04:00P - 04:59P	60	5.6
05:00P - 05:59P	66	6.2
06:00P - 06:59P	45	4.2
07:00P - 07:59P	53	5.0
08:00P - 08:59P	54	5.1
09:00P - 09:59P	48	4.5
10:00P - 10:59P	39	3.7
11:00P - MIDNIGHT	59	5.6
TOTAL	1,063	100.0

Unknown Data Not Included

TABLE 2.0.12

2008 MISSOURI POLICE VEHICLE CRASHES

TYPE OF CIRCUMSTANCE INVOLVED BY CRASH SEVERITY AND PERSON CLASSIFICATION[1]

	FATAL AND PERSONAL INJURY POLICE VEHICLE CRASHES = 207			TOTAL POLICE VEHICLE CRASHES = 1,066		
	DRIVER OF POLICE VEHICLE/ VEHICLE	OTHER DRIVER/ VEHICLE/ PEDESTRIAN	TOTAL F & PI	DRIVER OF POLICE VEHICLE/ VEHICLE	OTHER DRIVER/ VEHICLE/ PEDESTRIAN	TOTAL CRASHES
VEHICLE DEFECTS	2.4	0.5	2.9	1.0	0.8	1.8
TRAFFIC CONTROL INOPERATIVE / MISSING	0.0	0.0	0.0	0.1	0.0	0.1
IMPROPERLY STOPPED ON ROADWAY	0.5	0.5	1.0	0.2	0.4	0.6
EXCEEDING SPEED LIMIT / TOO FAST FOR CONDITIONS	14.5	9.7	24.2	11.3	4.0	15.3
IMPROPER PASSING	1.9	0.0	1.9	1.0	0.6	1.6
VIOLATION OF STOP SIGN	1.4	5.3	6.8	0.8	1.8	2.5
WRONG SIDE NOT PASSING	0.5	1.0	1.4	0.3	0.4	0.7
FOLLOWING TOO CLOSE	2.9	5.8	8.7	2.6	3.3	5.9
IMPROPER SIGNAL	0.0	1.0	1.0	0.0	0.4	0.4
IMPROPER BACKING	0.0	1.0	1.0	4.1	3.1	7.2
IMPROPER TURN	1.4	1.4	2.9	1.6	1.4	3.0
IMPROPER LANE USAGE / CHANGE	1.4	5.8	7.2	2.1	3.2	5.3
WRONG WAY ONE-WAY STREET	0.5	0.0	0.5	0.1	0.1	0.2
IMPROPER START FROM PARK	0.5	0.0	0.5	0.1	0.0	0.1
IMPROPERLY PARKED	0.0	1.0	1.0	0.1	0.7	0.8
FAILED TO YIELD	8.7	15.5	23.7	4.4	8.2	12.4
DRINKING	0.0	3.4	3.4	0.1	3.4	3.5
DRUGS	0.0	1.9	1.9	0.1	0.9	1.0
PHYSICAL IMPAIRMENT	1.4	1.9	3.4	0.4	0.7	1.0
INATTENTION	9.7	15.9	24.6	16.4	8.9	24.9

[1]This table identifies the percentage of crashes involving one or more police vehicles having a specific type of circumstance which contributed to the cause of the crash. This table further defines the percentage of crashes where the contributing circumstance was associated with the driver or his police vehicle as well as those attributed to other persons and vehicles in the crash. For instance, when examining speed involvement in 2008 Missouri police vehicle crashes, it was found that a police vehicle driver was speeding in 11.3% of the crashes. In 4.0% of the crashes another driver was speeding. In 15.3% of the crashes either a police vehicle driver, another driver, or both drivers were speeding.

TABLE 2.0.13

POLICE VEHICLES INVOLVED IN 2008 MISSOURI CRASHES

TYPE OF VEHICLE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
AUTOMOBILE	1	100.0	175	82.2	780	89.0	956	87.7
SPORT UTILITY VEHICLE	0	0.0	11	5.2	38	4.3	47	4.5
VAN	0	0.0	7	3.3	16	1.8	23	2.1
BUS	0	0.0	2	0.9	1	0.1	3	0.3
MOTORCYCLE	0	0.0	10	4.7	0	0.0	10	0.9
OTHER TRANSPORT DEVICE	0	0.0	0	0.0	2	0.2	2	0.2
PICK-UP TRUCK	0	0.0	8	3.8	33	3.8	41	3.8
OTHER TRUCK	0	0.0	0	0.0	6	0.7	6	0.6
UNKNOWN	0	-	2	-	0	-	2	-
TOTAL	1	100.0	215	100.0	876	100.0	1,092	100.0

TABLE 2.0.14

POLICE VEHICLES INVOLVED IN 2008 MISSOURI CRASHES

DRIVER INVOLVEMENT BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
DRIVERLESS	0	0.0	0	0.0	0	0.0	0	0.0
KNOWN DRIVER INVOLVED	1	100.0	215	100.0	875	99.9	1,091	99.9
UNKNOWN DRIVER INVOLVED	0	0.0	0	0.0	1	0.1	1	0.1
TOTAL	1	100.0	215	100.0	876	100.0	1,092	100.0

TABLE 2.0.15

DRIVERS OF POLICE VEHICLES INVOLVED IN 2008 MISSOURI CRASHES

SEX OF DRIVER BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
MALE	1	100.0	202	94.0	788	90.1	991	90.8
FEMALE	0	0.0	13	6.0	87	9.9	100	9.2
UNKNOWN	0	-	0	-	1	-	1	-
TOTAL	1	100.0	215	100.0	876	100.0	1,092	100.0

TABLE 2.0.16

DRIVERS OF POLICE VEHICLES INVOLVED IN 2008 MISSOURI CRASHES

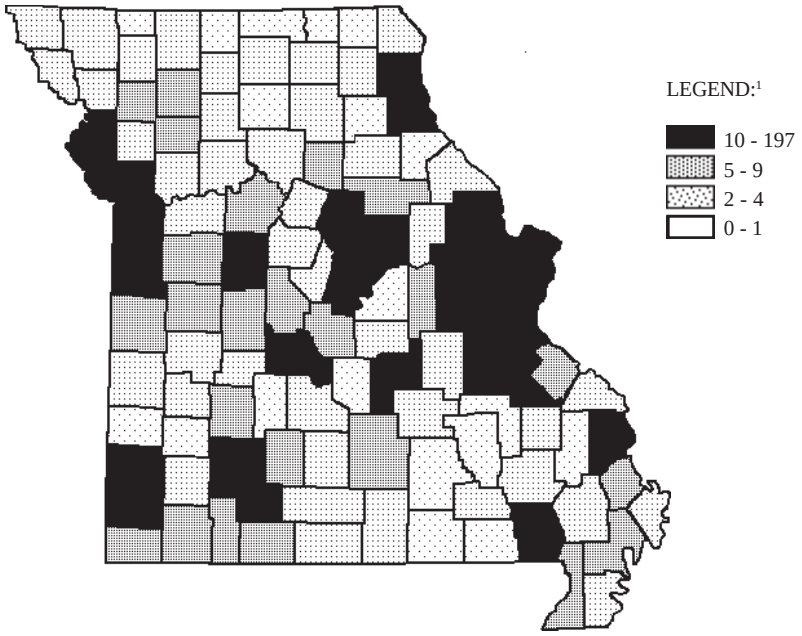
AGE OF DRIVER BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
AVERAGE AGE OF DRIVER	42.0	-	36.4	-	34.7	-	35.0	-
14 YEARS AND UNDER	0	0.0	0	0.0	0	0.0	0	0.0
15 - 20 YEARS	0	0.0	3	1.4	13	1.5	16	1.5
21 - 25 YEARS	0	0.0	27	12.7	152	17.6	179	16.6
26 - 30 YEARS	0	0.0	47	22.2	200	23.2	247	23.0
31 - 35 YEARS	0	0.0	40	18.9	159	18.4	199	18.5
36 - 40 YEARS	0	0.0	35	16.5	140	16.2	175	16.3
41 - 45 YEARS	1	100.0	19	9.0	58	6.7	78	7.3
46 - 50 YEARS	0	0.0	11	5.2	55	6.4	66	6.1
51 - 55 YEARS	0	0.0	14	6.6	39	4.5	53	4.9
56 - 60 YEARS	0	0.0	9	4.3	28	3.2	37	3.4
61 - 65 YEARS	0	0.0	3	1.4	11	1.3	14	1.3
66 YEARS AND OVER	0	0.0	4	1.9	8	0.9	12	1.1
UNKNOWN	0	-	3	-	13	-	16	-
TOTAL	1	100.0	215	100.0	876	100.0	1,092	100.0

TABLE 2.0.17

2008 POLICE VEHICLE INVOLVED CRASHES

COUNTY QUARTILE ANALYSIS



[1] LEGEND CATEGORIES ARE BASED ON QUARTILES OF COUNTIES.

RANK	COUNTY	FREQUENCY	PERCENT	RANK	COUNTY	FREQUENCY	PERCENT
1.0	ST. LOUIS	197	18.5	25.0	BUTLER	10	0.9
2.0	JACKSON	90	8.4	25.0	CALLAWAY	10	0.9
3.0	ST. LOUIS CITY	63	5.9	25.0	CASS	10	0.9
4.0	ST. CHARLES	55	5.2	25.0	CHRISTIAN	10	0.9
5.5	CLAY	28	2.6	25.0	LEWIS	10	0.9
5.5	GREENE	28	2.6	25.0	MARION	10	0.9
7.0	JEFFERSON	27	2.5	25.0	WASHINGTON	10	0.9
9.0	BOONE	21	2.0				First Quartile
9.0	JASPER	21	2.0				
9.0	WARREN	21	2.0				Second Quartile
11.5	CAPE GIRARDEAU	20	1.9	29.5	HENRY	9	0.8
11.5	FRANKLIN	20	1.9	29.5	STONE	9	0.8
13.0	BUCHANAN	19	1.8	33.0	BENTON	8	0.8
14.0	CAMDEN	17	1.6	33.0	DAVIESS	8	0.8
16.0	NEWTON	13	1.2	33.0	RANDOLPH	8	0.8
16.0	PHELPS	13	1.2	33.0	SCOTT	8	0.8
16.0	PLATTE	13	1.2	33.0	TANEY	8	0.8
18.5	COLE	12	1.1	36.5	BARRY	7	0.7
18.5	LINCOLN	12	1.1	36.5	BATES	7	0.7
20.5	PETTIS	11	1.0	39.0	GASCONADE	6	0.6
20.5	ST. FRANCOIS	11	1.0	39.0	MC DONALD	6	0.6

RANK	COUNTY	FREQUENCY	PERCENT
39.0	STE. GENEVIEVE	6	0.6
46.5	AUDRAIN	5	0.5
46.5	CALDWELL	5	0.5
46.5	DE KALB	5	0.5
46.5	DUNKLIN	5	0.5
46.5	JOHNSON	5	0.5
46.5	MILLER	5	0.5
46.5	MORGAN	5	0.5
46.5	NEW MADRID	5	0.5
46.5	POLK	5	0.5
46.5	SALINE	5	0.5
46.5	TEXAS	5	0.5
46.5	WEBSTER	5	0.5
			Second Quartile
			Third Quartile
59.5	ANDREW	4	0.4
59.5	ATCHISON	4	0.4
59.5	CHARITON	4	0.4
59.5	CLINTON	4	0.4
59.5	CRAWFORD	4	0.4
59.5	HOLT	4	0.4
59.5	HOWELL	4	0.4
59.5	LAFAYETTE	4	0.4
59.5	MACON	4	0.4
59.5	MONTGOMERY	4	0.4
59.5	PEMISCOT	4	0.4
59.5	ST. CLAIR	4	0.4
59.5	STODDARD	4	0.4
59.5	WAYNE	4	0.4
72.0	ADAIR	3	0.3
72.0	CLARK	3	0.3
72.0	COOPER	3	0.3
72.0	DOUGLAS	3	0.3
72.0	GENTRY	3	0.3
72.0	GRUNDY	3	0.3
72.0	HOWARD	3	0.3
72.0	LACLEDE	3	0.3
72.0	MONROE	3	0.3
72.0	PERRY	3	0.3
72.0	PIKE	3	0.3
87.0	CARROLL	2	0.2
87.0	CARTER	2	0.2
87.0	CEDAR	2	0.2
87.0	DENT	2	0.2
87.0	HARRISON	2	0.2
87.0	HICKORY	2	0.2
87.0	KNOX	2	0.2
87.0	LAWRENCE	2	0.2
87.0	LIVINGSTON	2	0.2
87.0	MADISON	2	0.2
87.0	MARIES	2	0.2
87.0	MISSISSIPPI	2	0.2
87.0	MONITEAU	2	0.2
87.0	NODAWAY	2	0.2
87.0	OZARK	2	0.2
87.0	RAY	2	0.2
87.0	SULLIVAN	2	0.2
87.0	VERNON	2	0.2
87.0	WRIGHT	2	0.2
			Third Quartile
			Fourth Quartile
100.0	BARTON	1	0.1
100.0	LINN	1	0.1
100.0	OSAGE	1	0.1
100.0	PUTNAM	1	0.1
100.0	RIPLEY	1	0.1
100.0	SHANNON	1	0.1
100.0	SHELBY	1	0.1
109.5	BOLLINGER	0	0.0
109.5	DADE	0	0.0
109.5	DALLAS	0	0.0
109.5	IRON	0	0.0
109.5	MERCER	0	0.0
109.5	OREGON	0	0.0
109.5	PULASKI	0	0.0
109.5	RALLS	0	0.0
109.5	REYNOLDS	0	0.0
109.5	SCHUYLER	0	0.0
109.5	SCOTLAND	0	0.0
109.5	WORTH	0	0.0

TABLE 2.0.18

3.0 FIRE VEHICLE INVOLVEMENT

This section presents a series of data displays which identify fire vehicle involvement in Missouri's traffic crash activity. Fire vehicle traffic crashes are defined as any crash in which one or more fire vehicles were directly involved in the incident. Data displays also are provided which describe characteristics of the fire vehicle drivers involved in these traffic crashes.

2008 SUMMARY ANALYSIS

- In 2008, there were 145 traffic crashes involving one or more fire vehicles in the State of Missouri. One person was killed and 37 were injured in these crashes.

- In 46.9% of the traffic crashes involving fire vehicles, the fire vehicle was on an emergency run at the time of the incident.

- In 2008, one person was killed or injured in a fire vehicle related crash every 9.6 days in the State of Missouri.

- Of all 2008 crashes involving fire vehicles, the first harmful event in 46.2% of the cases involved one motor vehicle in transport striking another motor vehicle in transport. In 24.1% of the cases, it involved a motor vehicle striking a parked vehicle. In 17.9% of the cases, the vehicle struck a fixed object.

- Of all 2008 crashes involving fire vehicles, 69.7% occurred in an urban area of the State and 30.3% occurred in a rural area.

- Of all fire vehicle drivers in 2008 traffic crashes, 98.0% were male and 2.0% were female. The average age of the fire vehicle driver was 40.8 years.

2008 FIRE VEHICLE INVOLVED CRASHES

EMERGENCY RUN STATUS

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%	TOTAL NUMBER[1] KILLED	TOTAL NUMBER[1] INJURED	FIRE VEHICLE DRIVERS/PASSENGERS[2] KILLED	FIRE VEHICLE DRIVERS/PASSENGERS[2] INJURED
FIRE VEHICLE ON RUN	1	100.0	15	62.5	52	43.3	68	46.9	1	26	1	18
FIRE VEHICLE NOT ON RUN	0	0.0	9	37.5	68	56.7	77	53.1	0	11	0	3
TOTAL	1	100.0	24	100.0	120	100.0	145	100.0	1	37	1	21

[1]This statistic indicates the total number of persons killed and injured in a crash where one or more fire vehicles were involved.

[2]This statistic indicates the number of fire vehicle drivers and passengers killed and injured.

TABLE 3.0.1

2007 and 2008 FIRE VEHICLE INVOLVED CRASH ANALYSIS

	2007	2008	RATE OF CHANGE
FATAL	1	1	=0.0
PERSONAL INJURY	25	24	-4.0
PROPERTY DAMAGE	144	120	-16.7
TOTAL	170	145	-14.7

TABLE 3.0.2

2008 FIRE VEHICLE INVOLVED CRASHES

CRASH TYPE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
ANIMAL	0	0.0	0	0.0	5	4.2	5	3.5
FIXED OBJECT	0	0.0	4	16.7	22	18.3	26	17.9
OTHER OBJECT	0	0.0	1	4.2	1	0.8	2	1.4
PEDESTRIAN	0	0.0	1	4.2	0	0.0	1	0.7
VEHICLE IN TRANSPORT	1	100.0	15	62.5	51	42.5	67	46.2
PARKED VEHICLE	0	0.0	0	0.0	35	29.2	35	24.1
NON-COLLISION OVERTURN	0	0.0	3	12.5	2	1.7	5	3.5
NON-COLLISION OTHER	0	0.0	0	0.0	4	3.3	4	2.8
TOTAL	1	100.0	24	100.0	120	100.0	145	100.0

TABLE 3.0.3

2008 FIRE VEHICLE INVOLVED CRASHES

AREA CLASSIFICATION BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
URBAN	0	0.0	14	58.3	87	72.5	101	69.7
RURAL	1	100.0	10	41.7	33	27.5	44	30.3
TOTAL	1	100.0	24	100.0	120	100.0	145	100.0

TABLE 3.0.4

2008 FIRE VEHICLE INVOLVED CRASHES

ROAD CURVATURE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
STRAIGHT	1	100.0	20	83.3	104	88.9	125	88.0
CURVE	0	0.0	4	16.7	13	11.1	17	12.0
UNKNOWN	0	-	0	-	3	-	3	-
TOTAL	1	100.0	24	100.0	120	100.0	145	100.0

TABLE 3.0.5

2008 FIRE VEHICLE INVOLVED CRASHES

ROAD INCLINE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
LEVEL	1	100.0	14	58.3	81	69.2	96	67.6
HILL	0	0.0	7	29.2	32	27.4	39	27.5
CREST	0	0.0	3	12.5	4	3.4	7	4.9
UNKNOWN	0	-	0	-	3	-	3	-
TOTAL	1	100.0	24	100.0	120	100.0	145	100.0

TABLE 3.0.6

2008 FIRE VEHICLE INVOLVED CRASHES

ROAD CONDITIONS BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
DRY	1	100.0	15	62.5	76	64.4	92	64.3
WET	0	0.0	7	29.2	28	23.7	35	24.5
SNOW	0	0.0	1	4.2	7	5.9	8	5.6
ICE	0	0.0	1	4.2	7	5.9	8	5.6
UNKNOWN	0	-	0	-	2	-	2	-
TOTAL	1	100.0	24	100.0	120	100.0	145	100.0

TABLE 3.0.7

2008 FIRE VEHICLE INVOLVED CRASHES

HIGHWAY CLASSIFICATION BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
INTERSTATE	0	0.0	2	8.3	9	7.5	11	7.6
U.S. HIGHWAY	0	0.0	3	12.5	9	7.5	12	8.3
STATE NUMBERED	0	0.0	7	29.2	12	10.0	19	13.1
SINGLE STATE LETTERED	0	0.0	1	4.2	5	4.2	6	4.1
DOUBLE STATE LETTERED	0	0.0	1	4.2	2	1.7	3	2.1
OUTER ROAD	0	0.0	0	0.0	1	0.8	1	0.7
COUNTY ROAD	0	0.0	1	4.2	7	5.8	8	5.5
CITY STREET	0	0.0	9	37.5	70	58.3	79	54.5
OTHER[1]	1	100.0	0	0.0	5	4.2	6	4.1
TOTAL	1	100.0	24	100.0	120	100.0	145	100.0

[1] "Other" includes types of roads that are maintained by the State as well as by local jurisdictions.

TABLE 3.0.8

2008 FIRE VEHICLE INVOLVED CRASHES

HIGHWAY CLASSIFICATION BY AREA CLASSIFICATION AND CRASH SEVERITY

	URBAN								RURAL							
	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
INTERSTATE	0	0.0	2	14.3	6	6.9	8	7.9	0	0.0	0	0.0	3	9.1	3	6.8
U.S. HIGHWAY	0	0.0	2	14.3	4	4.6	6	5.9	0	0.0	1	10.0	5	15.2	6	13.6
STATE NUMBERED	0	0.0	1	7.1	5	5.8	6	5.9	0	0.0	6	60.0	7	21.2	13	29.6
SINGLE STATE LETTERED	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	10.0	5	15.2	6	13.6
DOUBLE STATE LETTERED	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	10.0	2	6.1	3	6.8
OUTER ROAD	0	0.0	0	0.0	1	1.2	1	1.0	0	0.0	0	0.0	0	0.0	0	0.0
COUNTY ROAD	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	10.0	7	21.2	8	18.2
CITY STREET	0	0.0	9	64.3	66	75.9	75	74.3	0	0.0	0	0.0	4	12.1	4	9.1
INTERSTATE LOOP	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
OTHER [1]	0	0.0	0	0.0	5	5.8	5	5.0	1	100.0	0	0.0	0	0.0	1	2.3
TOTAL	0	0.0	14	100.0	87	100.0	101	100.0	1	100.0	10	100.0	33	100.0	44	100.0

[1] "Other" includes types of roads that are maintained by the State as well as by local jurisdictions.

TABLE 3.0.9

2008 FIRE VEHICLE INVOLVED CRASHES

MONTH OF YEAR

MONTH	FREQUENCY	PERCENT
JANUARY	8	5.5
FEBRUARY	11	7.6
MARCH	11	7.6
APRIL	12	8.3
MAY	13	9.0
JUNE	11	7.6
JULY	15	10.3
AUGUST	6	4.1
SEPTEMBER	13	9.0
OCTOBER	11	7.6
NOVEMBER	7	4.8
DECEMBER	27	18.6
TOTAL	145	100.0

TABLE 3.0.10

2008 FIRE VEHICLE INVOLVED CRASHES

DAY OF WEEK

DAY	FREQUENCY	PERCENT
SUNDAY	8	5.5
MONDAY	26	17.9
TUESDAY	20	13.8
WEDNESDAY	24	16.6
THURSDAY	22	15.2
FRIDAY	24	16.6
SATURDAY	21	14.5
TOTAL	145	100.0

TABLE 3.0.11

2008 FIRE VEHICLE INVOLVED CRASHES

HOUR OF DAY

HOUR	FREQUENCY	PERCENT
12:01A - 12:59A	8	5.5
01:00A - 01:59A	3	2.1
02:00A - 02:59A	3	2.1
03:00A - 03:59A	1	0.7
04:00A - 04:59A	1	0.7
05:00A - 05:59A	2	1.4
06:00A - 06:59A	1	0.7
07:00A - 07:59A	4	2.8
08:00A - 08:59A	12	8.3
09:00A - 09:59A	14	9.7
10:00A - 10:59A	8	5.5
11:00A - 11:59A	8	5.5
NOON - 12:59P	9	6.2
01:00P - 01:59P	7	4.8
02:00P - 02:59P	9	6.2
03:00P - 03:59P	6	4.1
04:00P - 04:59P	9	6.2
05:00P - 05:59P	10	6.9
06:00P - 06:59P	7	4.8
07:00P - 07:59P	12	8.3
08:00P - 08:59P	2	1.4
09:00P - 09:59P	4	2.8
10:00P - 10:59P	2	1.4
11:00P - MIDNIGHT	3	2.1
TOTAL	145	100.0

TABLE 3.0.12

2008 MISSOURI FIRE VEHICLE CRASHES

TYPE OF CIRCUMSTANCE INVOLVED BY CRASH SEVERITY AND PERSON CLASSIFICATION[1]

	FATAL AND PERSONAL INJURY FIRE VEHICLE CRASHES = 25			TOTAL FIRE VEHICLE CRASHES = 145		
	DRIVER OF FIRE VEHICLE/ VEHICLE	OTHER DRIVER/ VEHICLE/ PEDESTRIAN	TOTAL F & PI	DRIVER OF FIRE VEHICLE/ VEHICLE	OTHER DRIVER/ VEHICLE/ PEDESTRIAN	TOTAL CRASHES
VEHICLE DEFECTS	4.0	0.0	4.0	2.8	0.7	3.4
TRAFFIC CONTROL INOPERATIVE / MISSING	0.0	0.0	0.0	0.0	0.0	0.0
IMPROPERLY STOPPED ON ROADWAY	0.0	0.0	0.0	0.0	2.1	2.1
EXCEEDING SPEED LIMIT / TOO FAST FOR CONDITIONS	8.0	4.0	12.0	4.8	5.5	10.3
IMPROPER PASSING	0.0	0.0	0.0	0.7	0.7	1.4
VIOLATION OF STOP SIGN	0.0	0.0	0.0	0.0	0.0	0.0
WRONG SIDE NOT PASSING	0.0	4.0	4.0	0.0	0.7	0.7
FOLLOWING TOO CLOSE	0.0	4.0	4.0	0.7	0.7	1.4
IMPROPER SIGNAL	0.0	0.0	0.0	0.0	0.0	0.0
IMPROPER BACKING	0.0	0.0	0.0	2.1	0.7	2.8
IMPROPER TURN	0.0	4.0	4.0	4.1	0.7	4.8
IMPROPER LANE USAGE / CHANGE	4.0	0.0	4.0	6.9	0.0	6.9
WRONG WAY ONE-WAY STREET	0.0	0.0	0.0	0.0	0.0	0.0
IMPROPER START FROM PARK	0.0	0.0	0.0	0.7	0.0	0.7
IMPROPERLY PARKED	0.0	0.0	0.0	0.7	6.2	6.9
FAILED TO YIELD	12.0	20.0	32.0	3.4	12.4	15.9
DRINKING	0.0	4.0	4.0	0.0	0.7	0.7
DRUGS	0.0	0.0	0.0	0.0	0.0	0.0
PHYSICAL IMPAIRMENT	4.0	0.0	4.0	0.7	0.7	1.4
INATTENTION	24.0	16.0	40.0	20.7	7.6	28.3

[1]This table identifies the percentage of crashes involving one or more fire vehicles having a specific type of circumstance which contributed to the cause of the crash. This table further defines the percentage of crashes where the contributing circumstance was associated with the driver or his fire vehicle as well as those attributed to other persons and vehicles in the crash. For instance, when examining speed involvement in 2008 Missouri fire vehicle crashes, it was found that a fire vehicle driver was speeding in 4.8% of the crashes. In 5.5% of the crashes another driver was speeding. In 10.3% of the crashes either a fire vehicle driver, another driver, or both drivers were speeding.

TABLE 3.0.13

FIRE VEHICLES INVOLVED IN 2008 MISSOURI CRASHES

TYPE OF VEHICLE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
AUTOMOBILE	0	0.0	4	16.0	6	4.9	10	6.7
SPORT UTILITY VEHICLE	0	0.0	3	12.0	10	8.1	13	8.7
MOTORCYCLE	0	0.0	1	4.0	0	0.0	1	0.7
OTHER TRANSPORT DEVICE	0	0.0	3	12.0	11	8.9	14	9.4
PICK-UP TRUCK	1	100.0	2	8.0	8	6.5	11	7.4
OTHER TRUCK	0	0.0	12	48.0	88	71.5	100	67.1
UNKNOWN	0	-	0	-	0	-	0	-
TOTAL	1	100.0	25	100.0	123	100.0	149	100.0

TABLE 3.0.14

FIRE VEHICLES INVOLVED IN 2008 MISSOURI CRASHES

DRIVER INVOLVEMENT BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
DRIVERLESS	0	0.0	0	0.0	0	0.0	0	0.0
KNOWN DRIVER INVOLVED	1	100.0	25	100.0	122	99.2	148	99.3
UNKNOWN DRIVER INVOLVED	0	0.0	0	0.0	1	0.8	1	0.7
TOTAL	1	100.0	25	100.0	123	100.0	149	100.0

TABLE 3.0.15

DRIVERS OF FIRE VEHICLES INVOLVED IN 2008 MISSOURI CRASHES

SEX OF DRIVER BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
MALE	1	100.0	25	100.0	119	97.5	145	98.0
FEMALE	0	0.0	0	0.0	3	2.5	3	2.0
UNKNOWN	0	-	0	-	1	-	1	-
TOTAL	1	100.0	25	100.0	123	100.0	149	100.0

TABLE 3.0.16

DRIVERS OF FIRE VEHICLES INVOLVED IN 2008 MISSOURI CRASHES

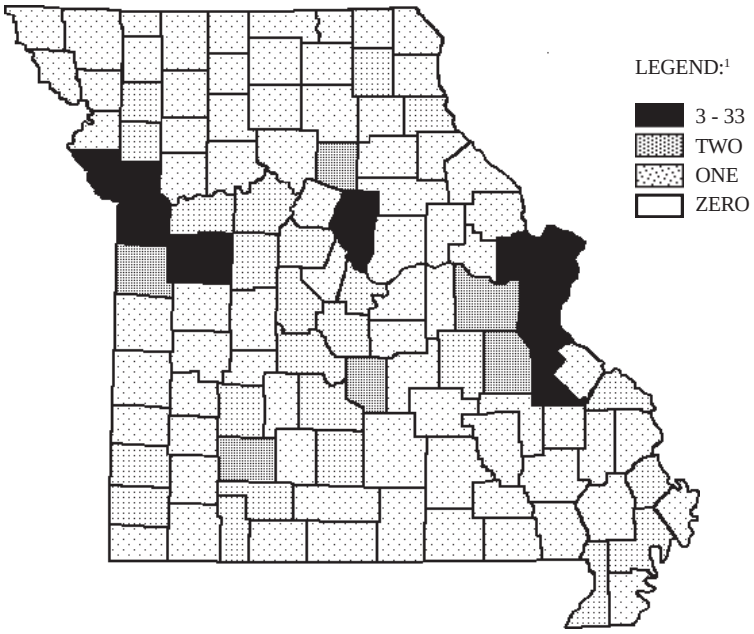
AGE OF DRIVER BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
AVERAGE AGE OF DRIVER	29.0	-	38.2	-	41.4	-	40.8	-
15 - 20 YEARS	0	0.0	2	8.0	1	0.8	3	2.0
21 - 25 YEARS	0	0.0	4	16.0	11	9.1	15	10.2
26 - 30 YEARS	1	100.0	3	12.0	8	6.6	12	8.2
31 - 35 YEARS	0	0.0	3	12.0	23	19.0	26	17.7
36 - 40 YEARS	0	0.0	3	12.0	18	14.9	21	14.3
41 - 45 YEARS	0	0.0	2	8.0	17	14.1	19	12.9
46 - 50 YEARS	0	0.0	3	12.0	17	14.1	20	13.6
51 - 55 YEARS	0	0.0	3	12.0	10	8.3	13	8.8
56 - 60 YEARS	0	0.0	0	0.0	11	9.1	11	7.5
61 - 65 YEARS	0	0.0	1	4.0	2	1.7	3	2.0
66 YEARS AND OVER	0	0.0	1	4.0	3	2.5	4	2.7
UNKNOWN	0	-	0	-	2	-	2	-
TOTAL	1	100.0	25	100.0	123	100.0	149	100.0

TABLE 3.0.17

2008 FIRE VEHICLE INVOLVED CRASHES

COUNTY QUARTILE ANALYSIS



[1] LEGEND CATEGORIES ARE BASED ON QUARTILES OF COUNTIES.

RANK	COUNTY	FREQUENCY	PERCENT
1.0	ST. LOUIS CITY	33	22.8
2.0	ST. LOUIS	32	22.1
3.0	JACKSON	12	8.3
4.5	BOONE	7	4.8
4.5	ST. CHARLES	7	4.8
6.0	CLAY	6	4.1
8.5	JEFFERSON	3	2.1
8.5	JOHNSON	3	2.1
8.5	PLATTE	3	2.1
8.5	ST. FRANCOIS	3	2.1
			First Quartile
			Second Quartile
13.5	CASS	2	1.4
13.5	FRANKLIN	2	1.4
13.5	GREENE	2	1.4
13.5	PULASKI	2	1.4
13.5	RANDOLPH	2	1.4
13.5	WASHINGTON	2	1.4
			Second Quartile
			Third Quartile
28.5	CAMDEN	1	0.7
28.5	CHRISTIAN	1	0.7
28.5	CLINTON	1	0.7
28.5	COLE	1	0.7
28.5	COOPER	1	0.7
28.5	CRAWFORD	1	0.7
28.5	DE KALB	1	0.7
28.5	DUNKLIN	1	0.7
28.5	JASPER	1	0.7
28.5	KNOX	1	0.7

RANK	COUNTY	FREQUENCY	PERCENT	RANK	COUNTY	FREQUENCY	PERCENT
28.5	LACLEDE	1	0.7	78.0	HICKORY	0	0.0
28.5	LAFAYETTE	1	0.7	78.0	HOLT	0	0.0
28.5	MARION	1	0.7	78.0	HOWARD	0	0.0
28.5	MILLER	1	0.7	78.0	HOWELL	0	0.0
28.5	MORGAN	1	0.7	78.0	IRON	0	0.0
28.5	NEW MADRID	1	0.7	78.0	LAWRENCE	0	0.0
28.5	NEWTON	1	0.7	78.0	LEWIS	0	0.0
28.5	PERRY	1	0.7	78.0	LINCOLN	0	0.0
28.5	PETTIS	1	0.7	78.0	LINN	0	0.0
28.5	POLK	1	0.7	78.0	LIVINGSTON	0	0.0
28.5	SALINE	1	0.7	78.0	MC DONALD	0	0.0
28.5	SCOTT	1	0.7	78.0	MACON	0	0.0
28.5	STONE	1	0.7	78.0	MADISON	0	0.0
28.5	WRIGHT	1	0.7	78.0	MARIES	0	0.0
			Third Quartile	78.0	MERCER	0	0.0
				78.0	MISSISSIPPI	0	0.0
			Fourth Quartile	78.0	MONITEAU	0	0.0
78.0	ADAIR	0	0.0	78.0	MONROE	0	0.0
78.0	ANDREW	0	0.0	78.0	MONTGOMERY	0	0.0
78.0	ATCHISON	0	0.0	78.0	NODAWAY	0	0.0
78.0	AUDRAIN	0	0.0	78.0	OREGON	0	0.0
78.0	BARRY	0	0.0	78.0	OSAGE	0	0.0
78.0	BARTON	0	0.0	78.0	OZARK	0	0.0
78.0	BATES	0	0.0	78.0	PEMISCOT	0	0.0
78.0	BENTON	0	0.0	78.0	PHELPS	0	0.0
78.0	BOLLINGER	0	0.0	78.0	PIKE	0	0.0
78.0	BUCHANAN	0	0.0	78.0	PUTNAM	0	0.0
78.0	BUTLER	0	0.0	78.0	RALLS	0	0.0
78.0	CALDWELL	0	0.0	78.0	RAY	0	0.0
78.0	CALLAWAY	0	0.0	78.0	REYNOLDS	0	0.0
78.0	CAPE GIRARDEAU	0	0.0	78.0	RIPLEY	0	0.0
78.0	CARROLL	0	0.0	78.0	ST. CLAIR	0	0.0
78.0	CARTER	0	0.0	78.0	STE. GENEVIEVE	0	0.0
78.0	CEDAR	0	0.0	78.0	SCHUYLER	0	0.0
78.0	CHARITON	0	0.0	78.0	SCOTLAND	0	0.0
78.0	CLARK	0	0.0	78.0	SHANNON	0	0.0
78.0	DADE	0	0.0	78.0	SHELBY	0	0.0
78.0	DALLAS	0	0.0	78.0	STODDARD	0	0.0
78.0	DAVIESS	0	0.0	78.0	SULLIVAN	0	0.0
78.0	DENT	0	0.0	78.0	TANEY	0	0.0
78.0	DOUGLAS	0	0.0	78.0	TEXAS	0	0.0
78.0	GASCONADE	0	0.0	78.0	VERNON	0	0.0
78.0	GENTRY	0	0.0	78.0	WARREN	0	0.0
78.0	GRUNDY	0	0.0	78.0	WAYNE	0	0.0
78.0	HARRISON	0	0.0	78.0	WEBSTER	0	0.0
78.0	HENRY	0	0.0	78.0	WORTH	0	0.0

TABLE 3.0.18

4.0 AMBULANCE INVOLVEMENT

This section presents a series of data displays which identify ambulance involvement in Missouri's traffic crash activity. Ambulance traffic crashes are defined as any crash in which one or more ambulances were directly involved in the incident. Data displays also are provided which describe characteristics of the ambulance drivers involved in these traffic crashes.

2008 SUMMARY ANALYSIS

- In 2008, there were 149 traffic crashes involving one or more ambulances in the State of Missouri. Two people were killed and 34 were injured in these crashes.
- In 32.9% of the traffic crashes involving ambulances, the ambulance was on an emergency run at the time of the incident.
- In 2008, one person was killed or injured in an ambulance related crash every 10.7 days in the State of Missouri.
- Of all 2008 crashes involving ambulances, the first harmful event in 68.5% of the cases involved one motor vehicle in transport striking another motor vehicle in transport. In 8.7% of the cases a motor vehicle struck an animal, and in 8.1% of the cases, a motor vehicle struck a fixed object.
- Of all 2008 crashes involving ambulances, 63.8% occurred in an urban area of the State and 36.2% occurred in a rural area.
- Of all ambulance drivers involved in 2008 traffic crashes, 78.1% were male and 21.9% were female. The average age of the ambulance driver was 34.6 years.

2008 AMBULANCE INVOLVED CRASHES

EMERGENCY RUN STATUS

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%	TOTAL NUMBER[1] KILLED	TOTAL NUMBER[1] INJURED	AMBULANCE DRIVERS/PASSENGERS[2] KILLED	AMBULANCE DRIVERS/PASSENGERS[2] INJURED
AMBULANCE ON RUN	1	50.0	9	40.9	39	31.2	49	32.9	1	12	1	6
AMBULANCE NOT ON RUN	1	50.0	13	59.1	86	68.8	100	67.1	1	22	0	12
TOTAL	2	100.0	22	100.0	125	100.0	149	100.0	2	34	1	18

[1]This statistic indicates the total number of persons killed and injured in a crash where one or more ambulances were involved.

[2]This statistic indicates the number of ambulance drivers and passengers killed and injured.

TABLE 4.0.1

2007 and 2008 AMBULANCE INVOLVED CRASH ANALYSIS

	2007	2008	RATE OF CHANGE
FATAL	2	2	=0.0
PERSONAL INJURY	27	22	-18.5
PROPERTY DAMAGE	126	125	-0.8
TOTAL	155	149	-3.9

TABLE 4.0.2

2008 AMBULANCE INVOLVED CRASHES

CRASH TYPE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
ANIMAL	0	0.0	1	4.6	12	9.6	13	8.7
FIXED OBJECT	0	0.0	2	9.1	10	8.0	12	8.1
OTHER OBJECT	0	0.0	0	0.0	4	3.2	4	2.7
VEHICLE IN TRANSPORT	2	100.0	17	77.3	83	66.4	102	68.5
PARKED VEHICLE	0	0.0	0	0.0	15	12.0	15	10.1
NON-COLLISION OVERTURN	0	0.0	2	9.1	1	0.8	3	2.0
TOTAL	2	100.0	22	100.0	125	100.0	149	100.0

TABLE 4.0.3

2008 AMBULANCE INVOLVED CRASHES

AREA CLASSIFICATION BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
URBAN	2	100.0	16	72.7	77	61.6	95	63.8
RURAL	0	0.0	6	27.3	48	38.4	54	36.2
TOTAL	2	100.0	22	100.0	125	100.0	149	100.0

TABLE 4.0.4

2008 AMBULANCE INVOLVED CRASHES

ROAD CURVATURE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
STRAIGHT	1	50.0	20	90.9	114	91.9	135	91.2
CURVE	1	50.0	2	9.1	10	8.1	13	8.8
UNKNOWN	0	-	0	-	1	-	1	-
TOTAL	2	100.0	22	100.0	125	100.0	149	100.0

TABLE 4.0.5

2008 AMBULANCE INVOLVED CRASHES

ROAD INCLINE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
LEVEL	1	50.0	16	72.7	93	76.2	110	75.3
HILL	0	0.0	6	27.3	27	22.1	33	22.6
CREST	1	50.0	0	0.0	2	1.7	3	2.1
UNKNOWN	0	-	0	-	3	-	3	-
TOTAL	2	100.0	22	100.0	125	100.0	149	100.0

TABLE 4.0.6

2008 AMBULANCE INVOLVED CRASHES

ROAD CONDITIONS BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
DRY	2	100.0	16	72.7	95	76.6	113	76.4
WET	0	0.0	3	13.6	14	11.3	17	11.5
SNOW	0	0.0	2	9.1	7	5.7	9	6.1
ICE	0	0.0	1	4.6	8	6.5	9	6.1
UNKNOWN	0	-	0	-	1	-	1	-
TOTAL	2	100.0	22	100.0	125	100.0	149	100.0

TABLE 4.0.7

2008 AMBULANCE INVOLVED CRASHES

HIGHWAY CLASSIFICATION BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
INTERSTATE	0	0.0	4	18.2	12	9.6	16	10.7
U.S. HIGHWAY	0	0.0	4	18.2	13	10.4	17	11.4
STATE NUMBERED	0	0.0	2	9.1	29	23.2	31	20.8
SINGLE STATE LETTERED	0	0.0	1	4.6	7	5.6	8	5.4
DOUBLE STATE LETTERED	0	0.0	0	0.0	3	2.4	3	2.0
OUTER ROAD	0	0.0	0	0.0	2	1.6	2	1.3
COUNTY ROAD	0	0.0	1	4.6	3	2.4	4	2.7
CITY STREET	2	100.0	9	40.9	51	40.8	62	41.6
OTHER[1]	0	0.0	1	4.6	5	4.0	6	4.0
TOTAL	2	100.0	22	100.0	125	100.0	149	100.0

[1] "Other" includes types of roads that are maintained by the State as well as by local jurisdictions.

TABLE 4.0.8

2008 AMBULANCE INVOLVED CRASHES

HIGHWAY CLASSIFICATION BY AREA CLASSIFICATION AND CRASH SEVERITY

	URBAN								RURAL							
	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
INTERSTATE	0	0.0	3	18.8	6	7.8	9	9.5	0	0.0	1	16.7	6	12.5	7	13.0
U.S. HIGHWAY	0	0.0	2	12.5	3	3.9	5	5.3	0	0.0	2	33.3	10	20.8	12	22.2
STATE NUMBERED	0	0.0	0	0.0	14	18.2	14	14.7	0	0.0	2	33.3	15	31.3	17	31.5
SINGLE STATE LETTERED	0	0.0	1	6.3	1	1.3	2	2.1	0	0.0	0	0.0	6	12.5	6	11.1
DOUBLE STATE LETTERED	0	0.0	0	0.0	2	2.6	2	2.1	0	0.0	0	0.0	1	2.1	1	1.9
OUTER ROAD	0	0.0	0	0.0	1	1.3	1	1.1	0	0.0	0	0.0	1	2.1	1	1.9
COUNTY ROAD	0	0.0	1	6.3	0	0.0	1	1.1	0	0.0	0	0.0	3	6.3	3	5.7
CITY STREET	2	100.0	8	50.0	49	63.6	59	62.1	0	0.0	1	16.7	2	4.2	3	5.6
OTHER [1]	0	0.0	1	6.3	1	1.3	2	2.1	0	0.0	0	0.0	4	8.3	4	7.4
TOTAL	2	100.0	16	100.0	77	100.0	95	100.0	0	100.0	6	100.0	48	100.0	54	100.0

[1] "Other" includes types of roads that are maintained by the State as well as by local jurisdictions.

TABLE 4.0.9

2008 AMBULANCE INVOLVED CRASHES

MONTH OF YEAR

MONTH	FREQUENCY	PERCENT
JANUARY	10	6.7
FEBRUARY	12	8.1
MARCH	12	8.1
APRIL	18	12.1
MAY	10	6.7
JUNE	14	9.4
JULY	10	6.7
AUGUST	11	7.4
SEPTEMBER	9	6.0
OCTOBER	14	9.4
NOVEMBER	12	8.1
DECEMBER	17	11.4
TOTAL	149	100.0

TABLE 4.0.10

2008 AMBULANCE INVOLVED CRASHES

DAY OF WEEK

DAY	FREQUENCY	PERCENT
SUNDAY	13	8.7
MONDAY	14	9.4
TUESDAY	24	16.1
WEDNESDAY	26	17.5
THURSDAY	29	19.5
FRIDAY	27	18.1
SATURDAY	16	10.7
TOTAL	149	100.0

TABLE 4.0.11

2008 AMBULANCE INVOLVED CRASHES

HOUR OF DAY

HOUR	FREQUENCY	PERCENT
12:01A - 12:59A	3	2.0
01:00A - 01:59A	6	4.0
02:00A - 02:59A	4	2.7
03:00A - 03:59A	1	0.7
04:00A - 04:59A	1	0.7
05:00A - 05:59A	3	2.0
06:00A - 06:59A	4	2.7
07:00A - 07:59A	5	3.4
08:00A - 08:59A	10	6.7
09:00A - 09:59A	4	2.7
10:00A - 10:59A	7	4.7
11:00A - 11:59A	14	9.4
NOON - 12:59P	7	4.7
01:00P - 01:59P	9	6.0
02:00P - 02:59P	11	7.4
03:00P - 03:59P	7	4.7
04:00P - 04:59P	8	5.4
05:00P - 05:59P	11	7.4
06:00P - 06:59P	9	6.0
07:00P - 07:59P	9	6.0
08:00P - 08:59P	1	0.7
09:00P - 09:59P	8	5.4
10:00P - 10:59P	3	2.0
11:00P - MIDNIGHT	4	2.7
TOTAL	149	100.0

TABLE 4.0.12

2008 MISSOURI AMBULANCE CRASHES

TYPE OF CIRCUMSTANCE INVOLVED BY CRASH SEVERITY AND PERSON CLASSIFICATION[1]

	FATAL AND PERSONAL INJURY AMBULANCE CRASHES = 24			TOTAL AMBULANCE CRASHES = 149		
	DRIVER OF AMBULANCE/ VEHICLE	OTHER DRIVER/ VEHICLE/ PEDESTRIAN	TOTAL F & PI	DRIVER OF AMBULANCE/ VEHICLE	OTHER DRIVER/ VEHICLE/ PEDESTRIAN	TOTAL CRASHES
VEHICLE DEFECTS	0.0	0.0	0.0	0.7	0.7	1.3
TRAFFIC CONTROL INOPERATIVE / MISSING	0.0	0.0	0.0	0.0	0.0	0.0
IMPROPERLY STOPPED ON ROADWAY	0.0	0.0	0.0	1.3	1.3	2.7
EXCEEDING SPEED LIMIT / TOO FAST FOR CONDITIONS	12.5	12.5	25.0	5.4	6.0	11.4
IMPROPER PASSING	0.0	0.0	0.0	0.7	0.7	1.3
VIOLATION OF STOP SIGN	8.3	0.0	8.3	1.3	2.7	4.0
WRONG SIDE NOT PASSING	0.0	0.0	0.0	0.7	2.0	2.0
FOLLOWING TOO CLOSE	16.7	4.2	20.8	4.0	6.0	10.1
IMPROPER SIGNAL	0.0	0.0	0.0	0.0	0.0	0.0
IMPROPER BACKING	0.0	0.0	0.0	2.0	0.7	2.7
IMPROPER TURN	0.0	0.0	0.0	2.0	0.7	2.7
IMPROPER LANE USAGE / CHANGE	8.3	4.2	12.5	6.0	8.1	10.7
WRONG WAY ONE-WAY STREET	0.0	0.0	0.0	0.0	0.0	0.0
IMPROPER START FROM PARK	0.0	0.0	0.0	0.0	0.0	0.0
IMPROPERLY PARKED	0.0	0.0	0.0	0.7	2.7	3.4
FAILED TO YIELD	4.2	25.0	29.2	0.7	16.1	16.8
DRINKING	0.0	4.2	4.2	0.0	2.7	2.7
DRUGS	0.0	0.0	0.0	0.7	0.0	0.7
PHYSICAL IMPAIRMENT	0.0	0.0	0.0	0.0	0.0	0.0
INATTENTION	8.3	12.5	20.8	14.8	14.8	28.2

[1]This table identifies the percentage of crashes involving one or more ambulances having a specific type of circumstance which contributed to the cause of the crash. This table further defines the percentage of crashes where the contributing circumstance was associated with the driver or his ambulance as well as those attributed to other persons and vehicles in the crash. For instance, when examining speed involvement in 2008 Missouri ambulance crashes, it was found that an ambulance driver was speeding in 5.4% of the crashes. In 6.0% of the crashes another driver was speeding. In 11.4% of the crashes either an ambulance driver, another driver, or both drivers were speeding.

TABLE 4.0.13

AMBULANCES INVOLVED IN 2008 MISSOURI CRASHES

DRIVER INVOLVEMENT BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
DRIVERLESS	0	0.0	0	0.0	0	0.0	0	0.0
KNOWN DRIVER INVOLVED	2	100.0	23	100.0	126	97.7	151	98.0
UNKNOWN DRIVER INVOLVED	0	0.0	0	0.0	3	2.3	3	2.0
TOTAL	2	100.0	23	100.0	129	100.0	154	100.0

TABLE 4.0.14

DRIVERS OF AMBULANCES INVOLVED IN 2008 MISSOURI CRASHES

SEX OF DRIVER BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
MALE	2	100.0	14	60.9	102	81.0	118	78.1
FEMALE	0	0.0	9	39.1	24	19.0	33	21.9
UNKNOWN	0	-	0	-	3	-	3	-
TOTAL	2	100.0	23	100.0	129	100.0	154	100.0

TABLE 4.0.15

DRIVERS OF AMBULANCES INVOLVED IN 2008 MISSOURI CRASHES

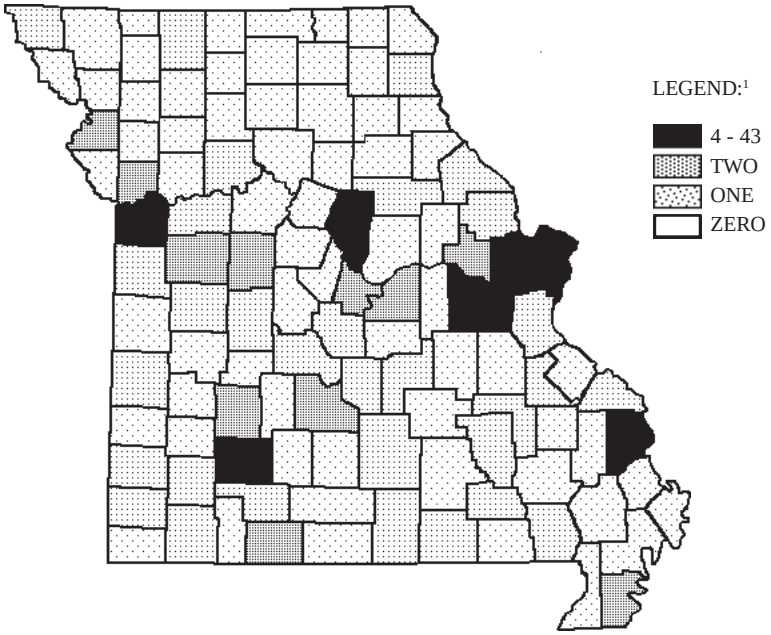
AGE OF DRIVER BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
AVERAGE AGE OF DRIVER	33.5	-	33.8	-	34.8	-	34.6	-
14 YEARS AND UNDER	0	0.0	0	0.0	0	0.0	0	0.0
15 - 20 YEARS	0	0.0	1	4.4	2	1.6	3	2.0
21 - 25 YEARS	1	50.0	5	21.7	26	20.6	32	21.2
26 - 30 YEARS	0	0.0	4	17.4	22	17.5	26	17.2
31 - 35 YEARS	0	0.0	4	17.4	21	16.7	25	16.6
36 - 40 YEARS	0	0.0	4	17.4	16	12.7	20	13.3
41 - 45 YEARS	1	50.0	4	17.4	20	15.9	25	16.6
46 - 50 YEARS	0	0.0	0	0.0	8	6.4	8	5.3
51 - 55 YEARS	0	0.0	0	0.0	8	6.4	8	5.3
56 - 60 YEARS	0	0.0	0	0.0	1	0.8	1	0.7
61 - 65 YEARS	0	0.0	0	0.0	1	0.8	1	0.7
66 YEARS AND OVER	0	0.0	1	4.4	1	0.8	2	1.3
UNKNOWN	0	-	0	-	3	-	3	-
TOTAL	2	100.0	23	100.0	129	100.0	154	100.0

TABLE 4.0.16

2008 AMBULANCE INVOLVED CRASHES

COUNTY QUARTILE ANALYSIS



[1] LEGEND CATEGORIES ARE BASED ON QUARTILES OF COUNTIES.

RANK	COUNTY	FREQUENCY	PERCENT
1.0	ST. LOUIS	43	28.9
2.0	ST. LOUIS CITY	20	13.4
3.0	JACKSON	11	7.4
4.5	BOONE	5	3.4
4.5	FRANKLIN	5	3.4
7.0	CAPE GIRARDEAU	4	2.7
7.0	GREENE	4	2.7
7.0	ST. CHARLES	4	2.7
			First Quartile
			Second Quartile
14.0	BUCHANAN	2	1.3
14.0	CLAY	2	1.3
14.0	COLE	2	1.3
14.0	JOHNSON	2	1.3
14.0	LACLEDE	2	1.3
14.0	OSAGE	2	1.3
14.0	PEMISCOT	2	1.3
14.0	PETTIS	2	1.3
14.0	POLK	2	1.3
14.0	TANEY	2	1.3
14.0	WARREN	2	1.3
			Second Quartile
			Third Quartile
35.0	ATCHISON	1	0.7
35.0	AUDRAIN	1	0.7
35.0	BARRY	1	0.7
35.0	BENTON	1	0.7
35.0	BUTLER	1	0.7
35.0	CAMDEN	1	0.7
35.0	CARROLL	1	0.7
35.0	CARTER	1	0.7
35.0	CASS	1	0.7
35.0	CHRISTIAN	1	0.7
35.0	HARRISON	1	0.7
35.0	HENRY	1	0.7
35.0	HOWELL	1	0.7

RANK	COUNTY	FREQUENCY	PERCENT	RANK	COUNTY	FREQUENCY	PERCENT
35.0	IRON	1	0.7	83.0	GRUNDY	0	0.0
35.0	JASPER	1	0.7	83.0	HICKORY	0	0.0
35.0	JEFFERSON	1	0.7	83.0	HOLT	0	0.0
35.0	LAFAYETTE	1	0.7	83.0	HOWARD	0	0.0
35.0	LAWRENCE	1	0.7	83.0	KNOX	0	0.0
35.0	LEWIS	1	0.7	83.0	LINN	0	0.0
35.0	LINCOLN	1	0.7	83.0	LIVINGSTON	0	0.0
35.0	MILLER	1	0.7	83.0	MC DONALD	0	0.0
35.0	NEWTON	1	0.7	83.0	MACON	0	0.0
35.0	OREGON	1	0.7	83.0	MADISON	0	0.0
35.0	PERRY	1	0.7	83.0	MARIES	0	0.0
35.0	PHELPS	1	0.7	83.0	MARION	0	0.0
35.0	PIKE	1	0.7	83.0	MERCER	0	0.0
35.0	PULASKI	1	0.7	83.0	MISSISSIPPI	0	0.0
35.0	REYNOLDS	1	0.7	83.0	MONITEAU	0	0.0
35.0	ST. FRANCOIS	1	0.7	83.0	MONROE	0	0.0
35.0	TEXAS	1	0.7	83.0	MONTGOMERY	0	0.0
35.0	VERNON	1	0.7	83.0	MORGAN	0	0.0
			Third Quartile	83.0	NEW MADRID	0	0.0
				83.0	NODAWAY	0	0.0
			Fourth Quartile	83.0	OZARK	0	0.0
83.0	ADAIR	0	0.0	83.0	PLATTE	0	0.0
83.0	ANDREW	0	0.0	83.0	PUTNAM	0	0.0
83.0	BARTON	0	0.0	83.0	RALLS	0	0.0
83.0	BATES	0	0.0	83.0	RANDOLPH	0	0.0
83.0	BOLLINGER	0	0.0	83.0	RAY	0	0.0
83.0	CALDWELL	0	0.0	83.0	RIPLEY	0	0.0
83.0	CALLAWAY	0	0.0	83.0	ST. CLAIR	0	0.0
83.0	CEDAR	0	0.0	83.0	STE. GENEVIEVE	0	0.0
83.0	CHARITON	0	0.0	83.0	SALINE	0	0.0
83.0	CLARK	0	0.0	83.0	SCHUYLER	0	0.0
83.0	CLINTON	0	0.0	83.0	SCOTLAND	0	0.0
83.0	COOPER	0	0.0	83.0	SCOTT	0	0.0
83.0	CRAWFORD	0	0.0	83.0	SHANNON	0	0.0
83.0	DADE	0	0.0	83.0	SHELBY	0	0.0
83.0	DALLAS	0	0.0	83.0	STODDARD	0	0.0
83.0	DAVIESS	0	0.0	83.0	STONE	0	0.0
83.0	DE KALB	0	0.0	83.0	SULLIVAN	0	0.0
83.0	DENT	0	0.0	83.0	WASHINGTON	0	0.0
83.0	DOUGLAS	0	0.0	83.0	WAYNE	0	0.0
83.0	DUNKLIN	0	0.0	83.0	WEBSTER	0	0.0
83.0	GASCONADE	0	0.0	83.0	WORTH	0	0.0
83.0	GENTRY	0	0.0	83.0	WRIGHT	0	0.0

TABLE 4.0.14

GLOSSARY

AMBULANCE INVOLVED TRAFFIC CRASH: Any crash in which one or more ambulances were directly involved in the incident.

EMERGENCY SERVICE VEHICLE INVOLVED TRAFFIC CRASH: Any crash in which one or more emergency service vehicles (i.e., police, fire, ambulance, and 'other' emergency service vehicle) were directly involved in the incident.

FATAL TRAFFIC CRASH: A crash in which one or more persons were killed as a result of the crash and their death(s) occurred within 30 days of the incident.

FIRE VEHICLE INVOLVED TRAFFIC CRASH: Any crash in which one or more fire vehicles were directly involved in the incident.

PERSONAL INJURY TRAFFIC CRASH: Any crash in which no person was killed but one or more persons were injured in the incident.

POLICE VEHICLE INVOLVED TRAFFIC CRASH: Any crash in which one or more police vehicles were directly involved in the incident.

PROPERTY DAMAGE TRAFFIC CRASH: Any crash in which no person was killed or injured but property was damaged in the incident.

QUARTILE: The value that marks the boundary between two consecutive intervals in a frequency distribution of four intervals with each containing one quarter of the total population.

RATE OF CHANGE: The formula is:

$$\frac{\text{Value in Current Period - Value in Base Period}}{\text{Value in Base Period}} \times 100$$

RURAL AREA: Any community of less than 5,000 population or an unincorporated area of the State.

URBAN AREA: Any community in the State having a population of 5,000 or more.