



2010

MISSOURI

EMERGENCY SERVICE VEHICLE

CRASHES

**MISSOURI STATE HIGHWAY PATROL
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FOREWORD

The mission of the Missouri Department of Transportation, Office of Highway Safety, Traffic and 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 2010 Missouri Emergency Vehicle Crashes report was produced by the Statistical Analysis Center of the Missouri State Highway Patrol at the request of the Office of Highway Safety.

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, Office of Highway Safety, Traffic and Highway Safety Division at 1-800-800-2358.



Leanna Depue, Highway Safety Director
MoDOT Traffic and Highway Safety Division

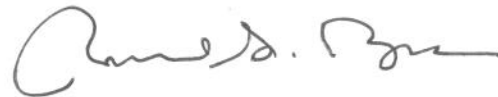
ACKNOWLEDGEMENTS

The Missouri Department of Transportation, Office of Highway Safety, Traffic and 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

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EXECUTIVE SUMMARY

The purpose of this report is to provide the Missouri State Highway Patrol, the Missouri Department of Transportation, Office of Highway Safety, Traffic and 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 2010, Missouri experienced 1,584 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 2010, 1,629 emergency service vehicles were involved in crashes in the State. Four persons were killed and 331 persons were injured in these traffic crashes. Of the 1,629 emergency service vehicles involved, 353 (21.7%) 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 1,629 emergency vehicles involved in 2010 traffic crashes, 1,211 (74.3%) 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 1,629 emergency vehicles involved in 2010 Missouri traffic crashes, 170 (10.4%) 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 353 vehicles making an emergency run when involved in a traffic crash in 2010, 56 (15.9%) were vehicles of this type.

Of the 1,629 emergency service vehicles involved in 2010 Missouri traffic crashes, 180 (11.1%) were ambulances. Ambulances also made up a higher proportion of emergency service vehicles involved in traffic crashes while making emergency runs. Of the 353 emergency service vehicles involved in 2010 Missouri traffic crashes while on emergency runs, 53 (15.0%) 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 2008 - 2010 with emphasis on the most recent year (2010).

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 2010 there were 1,584 traffic crashes involving 1,629 emergency service vehicles in the State of Missouri. Four persons were killed and 331 persons were injured in these traffic crashes. One person was killed or injured every 1.1 days in these types of crashes in 2010.
- Police vehicles comprise the largest number of emergency service vehicles involved in Missouri's traffic crashes. Of the 1,629 emergency service vehicles involved, 1,211 (74.3%) were police vehicles. A total of 353 emergency service vehicles were on emergency runs when the traffic crash occurred. Of these, 214 (60.6%) 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 locations 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 2010 traffic crashes. Of the 1,629 emergency vehicles involved, 180 (11.1%) were ambulances. Like fire vehicles, ambulances were more likely to be involved in a traffic crash when on an emergency run. Of the 353 emergency vehicles on emergency run when the traffic crash occurred, 53 (15.0%) were ambulances.
- Fire vehicles were the third most common type of emergency vehicle involved in Missouri's traffic crashes in 2010. Of the 1,629 emergency vehicles involved in 2010 Missouri traffic crashes, 170 (10.4%) were fire vehicles. Of the 353 emergency vehicles on emergency run at the time of the traffic crash, 56 (15.9%) were fire vehicles.
- Emergency vehicles classified as 'Other' made up a small proportion of those involved in Missouri's 2010 traffic crashes. Of the 1,629 emergency vehicles involved, only 68 (4.2%) were emergency vehicles classified as 'Other'.

2010 MISSOURI TRAFFIC CRASHES

EMERGENCY SERVICE (ES) VEHICLE INVOLVEMENT

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
ES VEHICLE INVOLVED	4	0.5	261	0.7	1,314	1.2	1,579	1.0
NO ES VEHICLE INVOLVED	774	99.5	37,352	99.3	111,648	98.8	149,774	99.0
TOTAL	778	100.0	37,613	100.0	112,962	100.0	151,353	100.0

TABLE 1.0.1

MISSOURI EMERGENCY SERVICE VEHICLE INVOLVED CRASHES

2007 - 2010

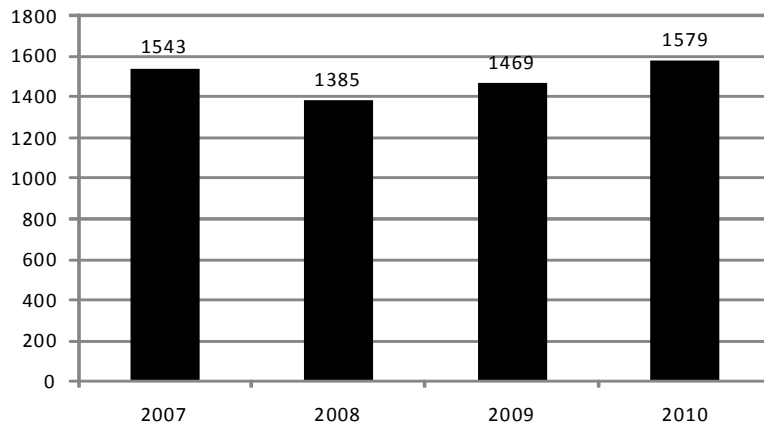


FIGURE 1.0.1

**MISSOURI EMERGENCY SERVICE VEHICLE PERSONAL INJURY
PROBLEM ANALYSIS CLOCK**

2010

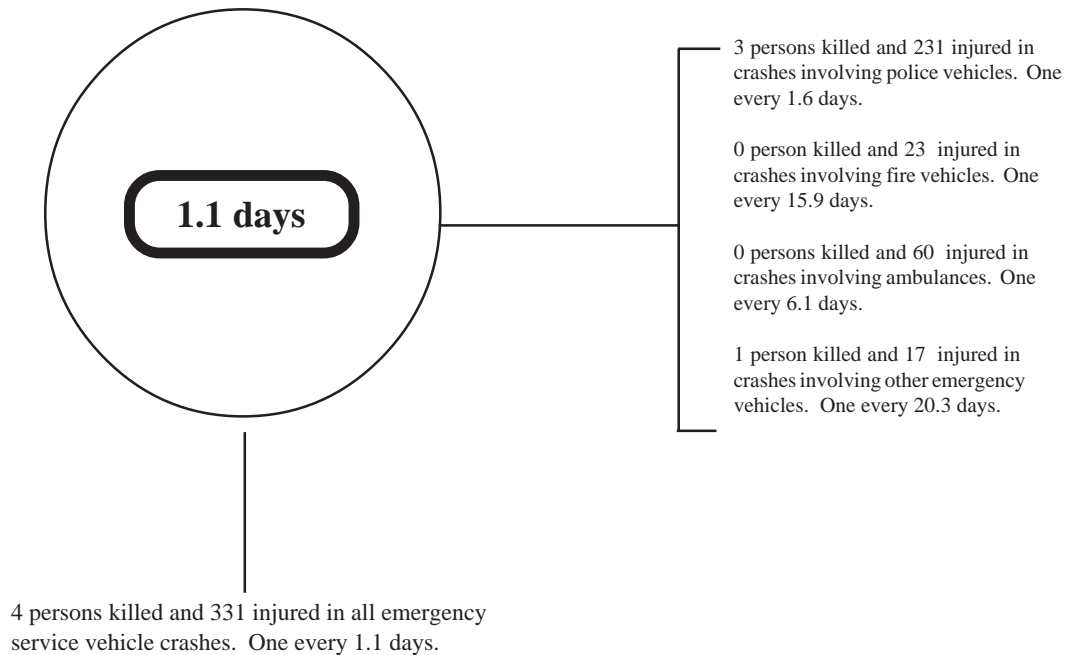


FIGURE 1.0.2

2010 MISSOURI EMERGENCY SERVICE (ES) VEHICLE CRASHES

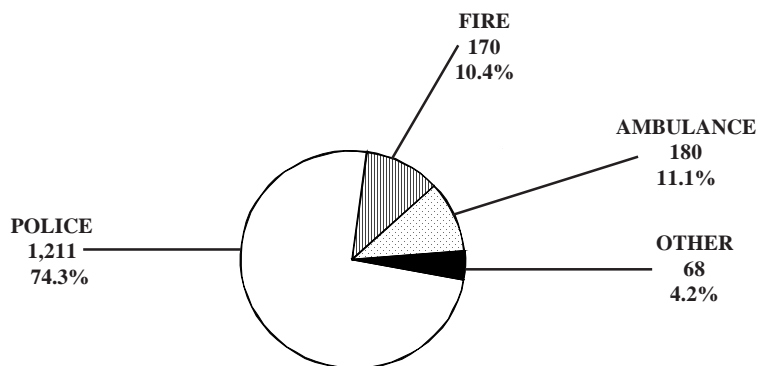
TYPE OF EMERGENCY SERVICE VEHICLE INVOLVED

	FATAL	PERSONAL INJURY	PROPERTY DAMAGE	TOTAL	NUMBER OF ES VEHICLES INVOLVED¹
TOTAL NUMBER OF ES VEHICLE CRASHES	4	264	1,316	1,584	1,629
INVOLVING					
POLICE VEHICLE	3	181	998	1,182	1,211
FIRE VEHICLE	0	23	144	167	170
AMBULANCE	0	47	126	173	180
OTHER ES VEHICLE	1	13	48	62	68

¹The 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 1,584 traffic crashes involving 1,629 emergency service vehicles

TABLE 1.0.2

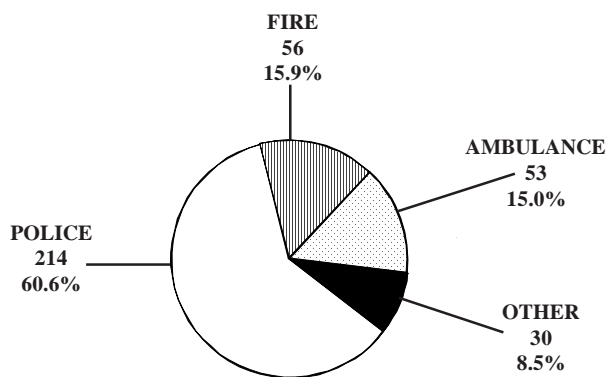
**TYPE OF EMERGENCY SERVICE VEHICLES INVOLVED IN
2010 MISSOURI TRAFFIC CRASHES**



TOTAL = 1,629

FIGURE 1.0.3

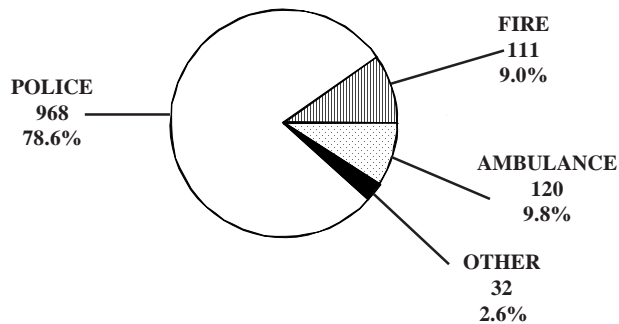
**TYPE OF EMERGENCY SERVICE
VEHICLES INVOLVED IN 2010 MISSOURI
TRAFFIC CRASHES WHILE ON
EMERGENCY RUN**



TOTAL = 353

FIGURE 1.0.4

**TYPE OF EMERGENCY SERVICE
VEHICLES INVOLVED IN 2010 MISSOURI
TRAFFIC CRASHES NOT ON
EMERGENCY RUN**



TOTAL = 1,231

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.

2010 SUMMARY ANALYSIS

- In 2010, there were 1,182 traffic crashes involving one or more police vehicles in the State of Missouri. Three people were killed and 231 were injured in these crashes.
- In 18.1% of the traffic crashes involving police vehicles, the police vehicle was on an emergency run at the time of the incident.
- In 2010, one person was killed or injured in a police vehicle related crash every 1.6 days in the State of Missouri.
- Of all 2010 crashes involving police vehicles, the first harmful event in 48.9% of the cases involved one motor vehicle in transport striking another motor vehicle in transport. In 23.5% of the cases, it involved a motor vehicle striking a fixed object. In 17.3% of the cases, the vehicle struck an animal.
- Of all 2010 crashes involving police vehicles, 53.6% occurred in an urban area of the State and 46.4% occurred in a rural area.
- Of all police vehicle drivers in 2010 traffic crashes, 90.0% were male and 10.0% were female. The average age of the police vehicle driver was 35.8 years.
- There were 1,211 police vehicles in the 1,182 traffic crashes in the State. Of these, 1,046 or 86.8% were automobiles.

**2010 POLICE VEHICLE INVOLVED CRASHES
EMERGENCY RUN STATUS**

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%	TOTAL KILLED	TOTAL NUMBER ¹ INJURED	POLICE VEHICLE DRIVERS/PASSENGERS ²	
											KILLED	INJURED
POLICE VEHICLE ON RUN	1	33.3	44	24.3	169	16.9	214	18.1	1	58	2	119
POLICE VEHICLE NOT ON RUN	2	66.7	137	75.7	829	83.1	968	81.9	2	173	0	36
TOTAL	3	100.0	181	100.0	998	100.0	1,182	100.0	3	231	2	155

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

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

TABLE 2.0.1

2009 and 2010 POLICE VEHICLE INVOLVED CRASH ANALYSIS

	2009	2010	RATE OF CHANGE
FATAL	2	3	+50.0
PERSONAL INJURY	183	181	-1.1
PROPERTY DAMAGE	908	998	+9.9
TOTAL	1,093	1,182	+8.1

TABLE 2.0.2

2010 POLICE VEHICLE INVOLVED CRASHES

CRASH TYPE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
ANIMAL	0	0.0	7	3.9	197	19.7	204	17.3
BICYCLIST	0	0.0	5	2.8	2	0.2	7	0.6
FIXED OBJECT	1	33.3	23	12.7	254	25.5	278	23.5
OTHER OBJECT	0	0.0	0	0.0	38	3.8	38	3.2
PEDESTRIAN	0	0.0	7	3.9	3	0.3	10	0.9
VEHICLE IN TRANSPORT	2	66.7	127	70.2	449	45.0	578	48.9
VEHICLE ON OTHER ROADWAY	0	0.0	0	0.0	0	0.0	0	0.0
PARKED VEHICLE	0	0.0	7	3.9	44	4.4	51	4.3
NON-COLLISION OVERTURN	0	0.0	3	1.7	2	0.2	5	0.4
NON-COLLISION OTHER	0	0.0	2	1.1	9	0.9	11	0.9
TOTAL	3	100.0	181	100.0	998	100.0	1,182	100.0

TABLE 2.0.3

2010 POLICE VEHICLE INVOLVED CRASHES

AREA CLASSIFICATION BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
URBAN	1	33.3	112	61.9	520	52.1	633	53.6
RURAL	2	66.7	69	38.1	478	47.9	549	46.4
TOTAL	3	100.0	181	100.0	998	100.0	1,182	100.0

TABLE 2.0.4

2010 POLICE VEHICLE INVOLVED CRASHES

ROAD CURVATURE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
STRAIGHT	2	66.7	161	89.4	830	83.7	993	84.5
CURVE	1	33.3	19	10.6	162	16.3	182	15.5
UNKNOWN	0	-	1	-	6	-	7	-
TOTAL	3	100.0	181	100.0	998	100.0	1,182	100.0

TABLE 2.0.5

2010 POLICE VEHICLE INVOLVED CRASHES

ROAD INCLINE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
LEVEL	0	0.0	126	70.0	639	64.8	765	65.4
HILL	2	66.7	49	27.2	325	33.0	376	32.2
CREST	1	33.3	5	2.8	22	2.2	28	2.4
UNKNOWN	0	-	1	-	12	-	13	-
TOTAL	3	100.0	181	100.0	998	100.0	1,182	100.0

TABLE 2.0.6

2010 POLICE VEHICLE INVOLVED CRASHES

ROAD CONDITIONS BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
DRY	1	33.3	154	86.5	762	77.1	917	78.4
WET	2	66.7	18	10.1	134	13.6	154	13.2
SNOW	0	0.0	5	2.8	56	5.7	61	5.2
ICE	0	0.0	0	0.0	32	3.2	32	2.7
SLUSH	0	0.0	1	0.6	1	0.1	2	0.2
MUD	0	0.0	0	0.0	4	0.4	4	0.3
STANDING WATER	0	0.0	0	0.0	0	0.0	0	0.0
MOVING WATER	0	0.0	0	0.0	0	0.0	0	0.0
UNKNOWN	0	-	3	-	9	-	12	-
TOTAL	3	100.0	181	100.0	998	100.0	1,182	100.0

TABLE 2.0.7

2010 POLICE VEHICLE INVOLVED CRASHES

HIGHWAY CLASSIFICATION BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
INTERSTATE	0	0.0	10	5.5	75	7.5	85	7.2
U.S. HIGHWAY	1	33.3	18	9.9	101	10.1	120	10.2
STATE NUMBERED	2	66.7	38	21.0	162	16.2	202	17.1
SINGLE STATE LETTERED	0	0.0	8	4.4	80	8.0	88	7.5
DOUBLE STATE LETTERED	0	0.0	8	4.4	27	2.7	35	3.0
OUTER ROAD	0	0.0	0	0.0	15	1.5	15	1.3
COUNTY ROAD	0	0.0	11	6.1	106	10.6	117	9.9
CITY STREET	0	0.0	84	46.4	370	37.1	454	38.4
INTERSTATE LOOP	0	0.0	1	0.6	2	0.2	3	0.3
OTHER ¹	0	0.0	3	1.7	60	6.0	63	5.3
TOTAL	3	100.0	181	100.0	998	100.0	1,182	100.0

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

TABLE 2.0.8

2010 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	6	5.4	35	6.7	41	6.5	0	0.0	4	5.8	40	8.4	44	8.0
U.S. HIGHWAY	0	0.0	5	4.5	31	6.0	36	5.7	1	50.0	13	18.8	70	14.6	84	15.3
STATE NUMBERED	1	100.0	18	16.1	58	11.2	77	12.2	1	50.0	20	29.0	104	21.8	125	22.8
SINGLE STATE LETTERED	0	0.0	1	0.9	14	2.7	15	2.4	0	0.0	7	10.1	66	13.8	73	13.3
DOUBLE STATE LETTERED	0	0.0	3	2.7	5	1.0	8	1.3	0	0.0	5	7.3	22	4.6	27	4.9
OUTER ROAD	0	0.0	0	0.0	7	1.4	7	1.1	0	0.0	0	0.0	8	1.7	8	1.5
COUNTY ROAD	0	0.0	2	1.8	14	2.7	16	2.5	0	0.0	9	13.0	92	19.3	101	18.4
CITY STREET	0	0.0	75	67.0	314	60.4	389	61.5	0	0.0	9	13.0	56	11.7	65	11.8
INTERSTATE LOOP	0	0.0	1	0.9	1	0.2	2	0.3	0	0.0	0	0.0	1	0.2	1	0.2
OTHER ¹	0	0.0	1	0.9	41	7.9	42	6.6	0	0.0	2	2.9	19	4.0	21	3.8
TOTAL	1	100.0	112	100.0	520	100.0	633	100.0	2	100.0	69	100.0	478	100.0	549	100.0

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

TABLE 2.0.9

2010 POLICE VEHICLE INVOLVED CRASHES

MONTH OF YEAR

MONTH	FREQUENCY	PERCENT
JANUARY	78	6.6
FEBRUARY	96	8.1
MARCH	79	6.7
APRIL	86	7.3
MAY	108	9.1
JUNE	98	8.3
JULY	98	8.3
AUGUST	89	7.5
SEPTEMBER	103	8.7
OCTOBER	118	10.0
NOVEMBER	107	9.1
DECEMBER	122	10.3
TOTAL	1,182	100.0

TABLE 2.0.10

2010 POLICE VEHICLE INVOLVED CRASHES

DAY OF WEEK

DAY	FREQUENCY	PERCENT
SUNDAY	140	11.9
MONDAY	147	12.5
TUESDAY	172	14.6
WEDNESDAY	189	16.0
THURSDAY	176	14.9
FRIDAY	189	16.0
SATURDAY	168	14.2
UNKNOWN	1	-
TOTAL	1,182	100.0

TABLE 2.0.11

2010 POLICE VEHICLE INVOLVED CRASHES

HOUR OF DAY

HOUR	FREQUENCY	PERCENT
12:01A - 12:59A	55	4.7
01:00A - 01:59A	46	3.9
02:00A - 02:59A	33	2.8
03:00A - 03:59A	34	2.9
04:00A - 04:59A	20	1.7
05:00A - 05:59A	25	2.1
06:00A - 06:59A	24	2.0
07:00A - 07:59A	43	3.6
08:00A - 08:59A	40	3.4
09:00A - 09:59A	40	3.4
10:00A - 10:59A	56	4.8
11:00A - 11:59A	46	3.9
NOON - 12:59P	59	5.0
01:00P - 01:59P	51	4.3
02:00P - 02:59P	53	4.5
03:00P - 03:59P	61	5.2
04:00P - 04:59P	58	4.9
05:00P - 05:59P	76	6.4
06:00P - 06:59P	53	4.5
07:00P - 07:59P	54	4.6
08:00P - 08:59P	54	4.6
09:00P - 09:59P	59	5.0
10:00P - 10:59P	73	6.2
11:00P - MIDNIGHT	67	5.7
UNKNOWN	2	--
TOTAL	1,182	100.0

TABLE 2.0.12

2010 MISSOURI POLICE VEHICLE CRASHES

TYPE OF CIRCUMSTANCE INVOLVED BY CRASH SEVERITY AND PERSON CLASSIFICATION¹

FATAL AND PERSONAL INJURY POLICE VEHICLE CRASHES = 184				TOTAL POLICE VEHICLE CRASHES = 1,182		
	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	0.0	0.0	0.0	0.6	0.5	1.1
TRAFFIC CONTROL INOPERATIVE / MISSING	0.0	0.0	0.0	0.1	0.0	0.1
IMPROPERLY STOPPED ON ROADWAY	0.0	0.5	0.5	0.1	1.1	1.1
EXCEEDING SPEED LIMIT / TOO FAST FOR CONDITIONS	8.2	9.8	17.4	8.8	4.7	13.2
IMPROPER PASSING	0.5	1.1	1.6	0.3	0.6	0.8
VIOLATION OF STOP SIGN	2.2	6.5	8.7	0.8	1.9	2.6
WRONG SIDE NOT PASSING	0.0	1.6	1.6	0.1	0.3	0.4
FOLLOWING TOO CLOSE	3.3	7.1	10.3	2.9	3.5	6.3
IMPROPER SIGNAL	0.0	0.0	0.0	0.0	0.2	0.2
IMPROPER BACKING	0.0	1.1	1.1	4.6	2.5	7.0
IMPROPER TURN	1.1	2.2	3.3	1.6	1.8	3.4
IMPROPER LANE USAGE / CHANGE	4.3	7.1	11.4	3.0	3.6	6.5
WRONG WAY ONE-WAY STREET	0.5	1.1	1.6	0.1	0.3	0.4
IMPROPER START FROM PARK	0.0	0.0	0.0	0.0	0.2	0.2
IMPROPERLY PARKED	0.0	0.0	0.0	0.1	0.3	0.4
FAILED TO YIELD	9.8	23.9	33.2	4.3	10.3	14.5
DRINKING	1.1	5.4	6.5	0.6	2.5	3.0
DRUGS	0.0	2.2	2.2	0.1	0.9	1.0
PHYSICAL IMPAIRMENT	1.6	1.1	2.7	0.3	0.5	0.8
INATTENTION	16.3	14.7	29.3	18.3	9.8	27.6

¹This 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 2010 Missouri police vehicle crashes, it was found that a police vehicle driver was speeding in 8.2% of the crashes. In 9.8% of the crashes another driver was speeding. In 17.4% of the crashes either a police vehicle driver, another driver, or both drivers were speeding.

TABLE 2.0.13

POLICE VEHICLES INVOLVED IN 2010 MISSOURI CRASHES

TYPE OF VEHICLE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
AUTOMOBILE	3	100.0	157	83.1	886	87.5	1,046	86.8
SPORT UTILITY VEHICLE	0	0.0	12	6.4	64	6.3	76	6.3
VAN	0	0.0	4	2.1	11	1.1	15	1.2
BUS	0	0.0	2	1.1	0	0.0	2	0.2
MOTORCYCLE	0	0.0	3	1.6	4	0.4	7	0.6
BICYCLE	0	0.0	1	0.5	0	0.0	1	0.1
OTHER TRANSPORT	0	0.0	0	0.0	1	0.1	1	0.1
PICK-UP TRUCK	0	0.0	9	4.8	45	4.4	54	4.5
OTHER TRUCK	0	0.0	1	0.5	2	0.2	3	0.3
UNKNOWN	0	-	2	-	4	-	6	-
TOTAL	3	100.0	191	100.0	1,017	100.0	1,211	100.0

TABLE 2.0.14

POLICE VEHICLES INVOLVED IN 2010 MISSOURI CRASHES

DRIVER INVOLVEMENT BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
KNOWN DRIVER INVOLVED	3	100.0	191	100.0	1,013	99.6	1,207	99.7
UNKNOWN DRIVER INVOLVED	0	0.0	0	0.0	4	0.4	4	0.3
TOTAL	3	100.0	191	100.0	1,017	100.0	1,211	100.0

TABLE 2.0.15

DRIVERS OF POLICE VEHICLES INVOLVED IN 2010 MISSOURI CRASHES

SEX OF DRIVER BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
MALE	3	100.0	169	88.5	914	90.2	1,086	90.0
FEMALE	0	0.0	22	11.5	99	9.8	121	10.0
UNKNOWN	0	-	0	-	4	-	4	-
TOTAL	3	100.0	191	100.0	1,017	100.0	1,211	100.0

TABLE 2.0.16

DRIVERS OF POLICE VEHICLES INVOLVED IN 2010 MISSOURI CRASHES

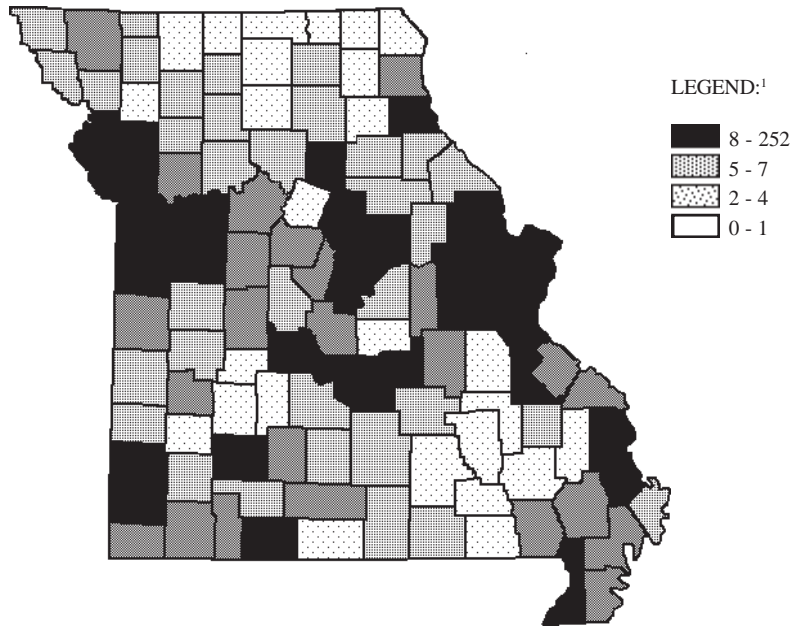
AGE OF DRIVER BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
AVERAGE AGE OF DRIVER	30.0	-	36.3	-	35.7	-	35.8	-
15 - 20 YEARS	0	0.0	3	1.6	13	1.3	16	1.3
21 - 25 YEARS	1	33.3	25	13.2	156	15.5	182	15.2
26 - 30 YEARS	1	33.3	43	22.8	193	19.2	237	19.8
31 - 35 YEARS	0	0.0	31	16.4	201	20.0	232	19.4
36 - 40 YEARS	1	33.3	30	15.9	166	16.5	197	16.5
41 - 45 YEARS	0	0.0	19	10.1	112	11.2	131	11.0
46 - 50 YEARS	0	0.0	12	6.4	64	6.4	76	6.4
51 - 55 YEARS	0	0.0	16	8.5	39	3.9	55	4.6
56 - 60 YEARS	0	0.0	5	2.7	36	3.6	41	3.4
61 - 65 YEARS	0	0.0	2	1.1	15	1.5	17	1.4
66 YEARS AND OVER	0	0.0	3	1.6	9	0.9	12	1.0
UNKNOWN	0	-	2	-	13	-	15	-
TOTAL	3	100.0	191	100.0	1,017	100.0	1,211	100.0

TABLE 2.0.17

2010 POLICE VEHICLE INVOLVED CRASHES

COUNTY QUARTILE ANALYSIS



¹LEGEND CATEGORIES ARE BASED ON QUARTILES OF COUNTIES.

RANK	COUNTY	FREQUENCY	PERCENT	RANK	COUNTY	FREQUENCY	PERCENT
1.0	ST LOUIS	252	21.3	21.0	WARREN	12	1.0
2.0	ST LOUIS CITY	89	7.5	23.5	CALLAWAY	10	0.8
3.0	JACKSON	88	7.4	23.5	PULASKI	10	0.8
4.0	ST CHARLES	54	4.6	25.5	MARION	9	0.8
5.5	BOONE	33	2.8	25.5	SCOTT	9	0.8
5.5	COLE	33	2.8	29.0	DUNKLIN	8	0.7
7.0	GREENE	32	2.7	29.0	JOHNSON	8	0.7
8.0	JASPER	29	2.5	29.0	LINCOLN	8	0.7
9.0	JEFFERSON	27	2.3	29.0	RANDOLPH	8	0.7
10.0	CLAY	25	2.1	29.0	TANEY	8	0.7
11.0	FRANKLIN	21	1.8				First Quartile
12.0	BUCHANAN	19	1.6				
13.5	CASS	16	1.4				Second Quartile
13.5	PHELPS	16	1.4	35.0	BATES	7	0.6
15.5	CAPE GIRARDEAU	15	1.3	35.0	BUTLER	7	0.6
15.5	PLATTE	15	1.3	35.0	CRAWFORD	7	0.6
17.5	LAFAYETTE	14	1.2	35.0	MONITEAU	7	0.6
17.5	ST FRANCOIS	14	1.2	35.0	PEMISCOT	7	0.6
19.0	CLINTON	13	1.1	35.0	RAY	7	0.6
21.0	CAMDEN	12	1.0	35.0	STONE	7	0.6
21.0	NEWTON	12	1.0	41.5	BARRY	6	0.5

RANK	COUNTY	FREQUENCY	PERCENT	RANK	COUNTY	FREQUENCY	PERCENT
41.5	DOUGLAS	6	0.5	73.0	PIKE	3	0.3
41.5	NEW MADRID	6	0.5	84.0	BARTON	2	0.2
41.5	PERRY	6	0.5	84.0	CARROLL	2	0.2
41.5	STODDARD	6	0.5	84.0	CHARITON	2	0.2
41.5	WEBSTER	6	0.5	84.0	GENTRY	2	0.2
50.0	BENTON	5	0.4	84.0	GRUNDY	2	0.2
50.0	CEDAR	5	0.4	84.0	HOLT	2	0.2
50.0	COOPER	5	0.4	84.0	MADISON	2	0.2
50.0	GASCONADE	5	0.4	84.0	OREGON	2	0.2
50.0	LEWIS	5	0.4	84.0	RALLS	2	0.2
50.0	MC DONALD	5	0.4	84.0	ST CLAIR	2	0.2
50.0	MILLER	5	0.4	84.0	WORTH	2	0.2
50.0	NODAWAY	5	0.4				
50.0	PETTIS	5	0.4				
50.0	STE GENEVIEVE	5	0.4				
50.0	SALINE	5	0.4				
				Third Quartile			
				Fourth Quartile			
				99.5	BOLLINGER	1	0.1
				99.5	CARTER	1	0.1
				99.5	CLARK	1	0.1
				99.5	DADE	1	0.1
				99.5	DALLAS	1	0.1
				99.5	DE KALB	1	0.1
				99.5	HICKORY	1	0.1
				99.5	HOWARD	1	0.1
				99.5	IRON	1	0.1
				99.5	MARIES	1	0.1
				99.5	OZARK	1	0.1
				99.5	POLK	1	0.1
				99.5	RIPLEY	1	0.1
				99.5	SCHUYLER	1	0.1
				99.5	SCOTLAND	1	0.1
				99.5	SHANNON	1	0.1
				99.5	SHELBY	1	0.1
				99.5	SULLIVAN	1	0.1
				99.5	WASHINGTON	1	0.1
				99.5	WAYNE	1	0.1
				112.5	HARRISON	0	.
				112.5	KNOX	0	.
				112.5	LINN	0	.
				112.5	MERCER	0	.
				112.5	PUTNAM	0	.
				112.5	REYNOLDS	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.

2010 SUMMARY ANALYSIS

- In 2010, there were 167 traffic crashes involving one or more fire vehicles in the State of Missouri. Zero people were killed and 23 were injured in these crashes.
- In 33.5% of the traffic crashes involving fire vehicles, the fire vehicle was on an emergency run at the time of the incident.
- In 2010, one person was killed or injured in a fire vehicle related crash every 15.9 days in the State of Missouri.
- Of all 2010 crashes involving fire vehicles, the first harmful event in 47.3% of the cases involved one motor vehicle in transport striking another motor vehicle in transport. In 25.8% of the cases, it involved a motor vehicle striking a parked vehicle. In 21.6% of the cases, the vehicle struck a fixed object.
- Of all 2010 crashes involving fire vehicles, 70.7% occurred in an urban area of the State and 29.3% occurred in a rural area.
- Of all fire vehicle drivers in 2010 traffic crashes, 93.5% were male and 6.5% were female. The average age of the fire vehicle driver was 41.2 years.

2010 FIRE VEHICLE INVOLVED CRASHES

EMERGENCY RUN STATUS

	FATAL		PERSONAL INJURY		PROPERTY DAMAGE		TOTAL		TOTAL NUMBER ¹		FIRE VEHICLE DRIVERS/PASSENGERS ²	
		%		%		%		%	KILLED	INJURED	KILLED	INJURED
FIRE VEHICLE ON RUN	0	0.0	12	52.2	44	30.6	56	33.5	0	16	0	4
FIRE VEHICLE NOT ON RUN	0	0.0	11	47.8	100	69.4	111	66.5	0	7	0	15
TOTAL	0	0.0	23	100.0	144	100.0	167	100.0	0	23	0	19

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

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

TABLE 3.0.1

2009 and 2010 FIRE VEHICLE INVOLVED CRASH ANALYSIS

	2009	2010	RATE OF CHANGE
FATAL	3	0	-100.0
PERSONAL INJURY	23	23	=0.0
PROPERTY DAMAGE	152	144	-5.3
TOTAL	178	167	-6.2

TABLE 3.0.2

2010 FIRE VEHICLE INVOLVED CRASHES

CRASH TYPE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
ANIMAL	0	0.0	0	0.0	2	1.4	2	1.2
BICYCLIST	0	0.0	0	0.0	0	0.0	0	0.0
FIXED OBJECT	0	0.0	5	21.7	31	21.5	36	21.6
OTHER OBJECT	0	0.0	0	0.0	1	0.7	1	0.6
PEDESTRIAN	0	0.0	2	8.7	0	0.0	2	1.2
VEHICLE IN TRANSPORT	0	0.0	13	56.5	66	45.8	79	47.3
VEHICLE ON OTHER ROADWAY	0	0.0	0	0.0	0	0.0	0	0.0
PARKED VEHICLE	0	0.0	1	4.4	42	29.2	43	25.8
NON-COLLISION OVERTURN	0	0.0	1	4.4	2	1.4	3	1.8
NON-COLLISION OTHER	0	0.0	1	4.4	0	0.0	1	0.6
TOTAL	0	0.0	23	100.0	144	100.0	167	100.0

TABLE 3.0.3

2010 FIRE VEHICLE INVOLVED CRASHES

AREA CLASSIFICATION BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
URBAN	0	0.0	10	43.5	108	75.0	118	70.7
RURAL	0	0.0	13	56.5	36	25.0	49	29.3
TOTAL	0	0.0	23	100.0	144	100.0	167	100.0

TABLE 3.0.4

2010 FIRE VEHICLE INVOLVED CRASHES

ROAD CURVATURE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
STRAIGHT	0	0.0	19	82.6	114	80.3	133	80.6
CURVE	0	0.0	4	17.4	28	19.7	32	19.4
UNKNOWN	0	-	0	-	2	-	2	-
TOTAL	0	0.0	23	100.0	144	100.0	167	100.0

TABLE 3.0.5

2010 FIRE VEHICLE INVOLVED CRASHES

ROAD INCLINE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
LEVEL	0	0.0	14	60.9	97	69.3	111	68.1
HILL	0	0.0	8	34.8	40	28.6	48	39.5
CREST	0	0.0	1	4.3	3	2.1	4	4.4
UNKNOWN	0	-	0	-	4	-	4	-
TOTAL	3	100.0	23	100.0	144	100.0	167	100.0

TABLE 3.0.6

2010 FIRE VEHICLE INVOLVED CRASHES

ROAD CONDITIONS BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
DRY	0	0.0	13	56.5	112	78.3	125	75.3
WET	0	0.0	9	39.1	14	9.8	23	13.9
SNOW	0	0.0	1	4.4	11	7.7	12	7.2
ICE	0	0.0	0	0.0	5	3.5	5	3.0
STANDING WATER	0	0.0	0	0.0	0	0.0	0	0.0
MOVING WATER	0	0.0	0	0.0	1	0.7	1	0.6
UNKNOWN	0	-	0	-	1	-	1	-
TOTAL	0	0.0	23	100.0	144	100.0	167	100.0

TABLE 3.0.7

2010 FIRE VEHICLE INVOLVED CRASHES

HIGHWAY CLASSIFICATION BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
INTERSTATE	0	0.0	1	4.4	2	1.4	3	1.8
U.S. HIGHWAY	0	0.0	2	8.7	5	3.5	7	4.2
STATE NUMBERED	0	0.0	3	13.0	10	6.9	13	7.8
SINGLE STATE LETTERED	0	0.0	3	13.0	8	5.6	11	6.6
DOUBLE STATE LETTERED	0	0.0	1	4.4	2	1.4	3	1.8
OUTER ROAD	0	0.0	0	0.0	1	0.7	1	0.6
COUNTY ROAD	0	0.0	4	17.4	13	9.0	17	10.2
CITY STREET	0	0.0	9	39.1	97	67.4	106	63.5
OTHER ¹	0	0.0	0	0.0	6	4.2	6	3.6
TOTAL	0	0.0	23	100.0	144	100.0	167	100.0

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

TABLE 3.0.8

2010 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 %	FATAL %	PERSONAL INJURY %	PROPERTY DAMAGE %	TOTAL %		
INTERSTATE	0	0.0	1	10.0	1	0.9	2	1.7	0	0.0	0	0.0	1	2.8
U.S. HIGHWAY	0	0.0	1	10.0	3	2.8	4	3.4	0	0.0	1	7.7	2	5.6
STATE NUMBERED	0	0.0	0	0.0	4	3.7	4	3.4	0	0.0	3	23.1	6	16.7
SINGLE STATE LETTERED	0	0.0	0	0.0	1	0.9	1	0.9	0	0.0	3	23.1	7	19.4
DOUBLE STATE LETTERED	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	7.7	2	5.6
OUTER ROAD	0	0.0	0	0.0	1	0.9	1	0.9	0	0.0	0	0.0	0	0.0
COUNTY ROAD	0	0.0	0	0.0	1	0.9	1	0.9	0	0.0	4	30.8	12	33.3
CITY STREET	0	0.0	8	80.0	92	85.2	100	84.8	0	0.0	1	7.7	5	13.9
OTHER ¹	0	0.0	0	0.0	5	4.6	5	4.2	0	0.0	0	0.0	1	2.8
TOTAL	0	0.0	10	100.0	108	100.0	118	100.0	0	0	13	100.0	36	100.0
													49	100.0

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

TABLE 3.0.9

2010 FIRE VEHICLE INVOLVED CRASHES

MONTH OF YEAR

MONTH	FREQUENCY	PERCENT
JANUARY	14	8.4
FEBRUARY	11	6.6
MARCH	10	6.0
APRIL	16	9.6
MAY	16	9.6
JUNE	17	10.2
JULY	13	7.8
AUGUST	14	8.4
SEPTEMBER	10	6.0
OCTOBER	17	10.2
NOVEMBER	10	6.0
DECEMBER	19	11.4
TOTAL	167	100.0

TABLE 3.0.10

2010 FIRE VEHICLE INVOLVED CRASHES

DAY OF WEEK

DAY	FREQUENCY	PERCENT
SUNDAY	17	10.2
MONDAY	18	10.8
TUESDAY	20	12.0
WEDNESDAY	28	16.8
THURSDAY	32	19.2
FRIDAY	34	20.4
SATURDAY	18	10.8
TOTAL	167	100.0

TABLE 3.0.11

2010 FIRE VEHICLE INVOLVED CRASHES

HOUR OF DAY

HOUR	FREQUENCY	PERCENT
12:01A - 12:59A	0	0.0
01:00A - 01:59A	6	3.6
02:00A - 02:59A	4	2.4
03:00A - 03:59A	3	1.8
04:00A - 04:59A	2	1.2
05:00A - 05:59A	1	0.6
06:00A - 06:59A	3	1.8
07:00A - 07:59A	5	3.0
08:00A - 08:59A	4	2.4
09:00A - 09:59A	3	1.8
10:00A - 10:59A	7	4.2
11:00A - 11:59A	9	5.4
NOON - 12:59P	11	6.6
01:00P - 01:59P	18	10.8
02:00P - 02:59P	7	4.2
03:00P - 03:59P	15	9.0
04:00P - 04:59P	13	7.8
05:00P - 05:59P	12	7.2
06:00P - 06:59P	13	7.8
07:00P - 07:59P	4	2.4
08:00P - 08:59P	4	2.4
09:00P - 09:59P	12	7.2
10:00P - 10:59P	8	4.8
11:00P - MIDNIGHT	3	1.8
TOTAL	167	100.0

TABLE 3.0.12

2010 MISSOURI FIRE VEHICLE CRASHES

TYPE OF CIRCUMSTANCE INVOLVED BY CRASH SEVERITY AND PERSON CLASSIFICATION¹

FATAL AND PERSONAL INJURY FIRE VEHICLE CRASHES = 23				TOTAL FIRE VEHICLE CRASHES = 167		
	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	4.3	0.0	4.3	1.2	0.6	1.8
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	0.0	0.0
EXCEEDING SPEED LIMIT / TOO FAST FOR CONDITIONS	17.4	17.4	34.8	8.4	4.8	13.2
IMPROPER PASSING	0.0	0.0	0.0	0.6	1.2	1.8
VIOLATION OF STOP SIGN	4.3	4.3	8.7	0.6	1.2	1.8
WRONG SIDE NOT PASSING	0.0	0.0	0.0	0.6	0.6	1.2
FOLLOWING TOO CLOSE	0.0	0.0	0.0	2.4	3.6	6.0
IMPROPER SIGNAL	0.0	0.0	0.0	0.0	0.0	0.0
IMPROPER BACKING	0.0	0.0	0.0	3.0	0.0	3.0
IMPROPER TURN	0.0	0.0	0.0	6.6	0.6	7.2
IMPROPER LANE USAGE / CHANGE	8.7	0.0	8.7	3.6	2.4	6.0
WRONG WAY ONE-WAY STREET	0.0	0.0	0.0	0.0	0.6	0.6
IMPROPER START FROM PARK	0.0	0.0	0.0	0.0	0.0	0.0
IMPROPERLY PARKED	0.0	0.0	0.0	0.0	4.2	4.2
FAILED TO YIELD	4.3	17.4	21.7	3.0	9.0	12.0
DRINKING	0.0	0.0	0.0	0.0	0.6	0.6
DRUGS	0.0	0.0	0.0	0.0	0.0	0.0
PHYSICAL IMPAIRMENT	0.0	0.0	0.0	0.0	1.2	1.2
INATTENTION	21.7	8.7	30.4	21.6	4.2	25.7

¹This 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 2010 Missouri fire vehicle crashes, it was found that a fire vehicle driver was speeding in 17.4% of the crashes. In 17.4% of the crashes another driver was speeding. In 34.8% of the crashes either a fire vehicle driver, another driver, or both drivers were speeding.

TABLE 3.0.13

FIRE VEHICLES INVOLVED IN 2010 MISSOURI CRASHES

TYPE OF VEHICLE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
AUTOMOBILE	0	0.0	3	12.5	5	3.5	8	4.7
SPORT UTILITY VEHICLE	0	0.0	2	8.3	16	11.0	18	10.7
VAN	0	0.0	0	0.0	0	0.0	0	0.0
MOTORCYCLE	0	0.0	1	4.2	0	0.0	1	0.6
ALL TERRAIN VEHICLE	0	0.0	0	0.0	0	0.0	0	0.0
OTHER TRANSPORT DEVICE	0	0.0	2	8.3	21	14.5	23	13.6
PICK-UP TRUCK	0	0.0	5	20.8	20	13.8	25	14.8
OTHER TRUCK	0	0.0	11	45.8	83	57.2	94	55.6
UNKNOWN	0	-	0	-	1	-	1	-
TOTAL	0	0.0	24	100.0	146	100.0	170	100.0

TABLE 3.0.14

FIRE VEHICLES INVOLVED IN 2010 MISSOURI CRASHES

DRIVER INVOLVEMENT BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
KNOWN DRIVER INVOLVED	0	0.0	24	100.0	145	99.3	169	99.4
UNKNOWN DRIVER INVOLVED	0	0.0	0	0.0	1	0.7	1	0.6
TOTAL	0	0.0	24	100.0	146	100.0	170	100.0

TABLE 3.0.15

DRIVERS OF FIRE VEHICLES INVOLVED IN 2010 MISSOURI CRASHES

SEX OF DRIVER BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
MALE	0	0.0	23	95.8	135	93.1	158	93.5
FEMALE	0	0.0	1	4.2	10	6.9	11	6.5
UNKNOWN	0	-	0	-	1	-	1	-
TOTAL	0	0.0	24	100.0	146	100.0	170	100.0

TABLE 3.0.16

DRIVERS OF FIRE VEHICLES INVOLVED IN 2010 MISSOURI CRASHES

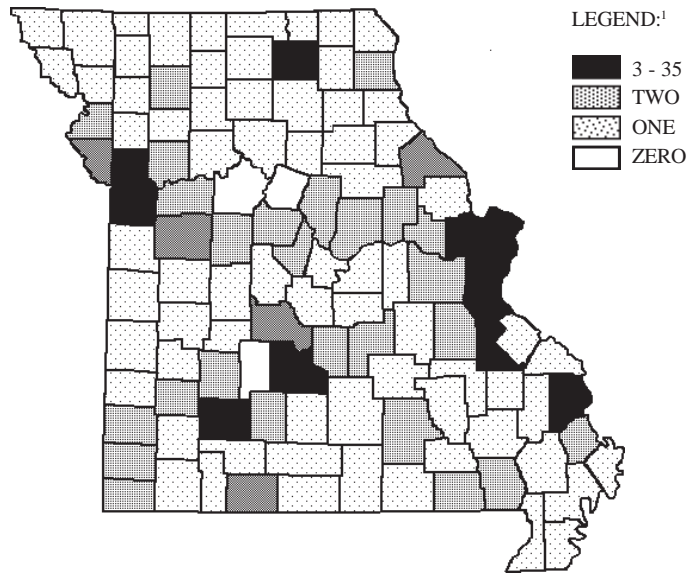
AGE OF DRIVER BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
AVERAGE AGE OF DRIVER	-	-	40.3	-	41.4	-	41.2	-
15 - 20 YEARS	0	0.0	1	4.2	3	2.1	4	2.4
21 - 25 YEARS	0	0.0	0	0.0	10	6.9	10	5.9
26 - 30 YEARS	0	0.0	7	29.2	16	11.0	23	13.6
31 - 35 YEARS	0	0.0	5	20.8	15	10.3	20	11.8
36 - 40 YEARS	0	0.0	1	4.2	27	18.6	28	16.6
41 - 45 YEARS	0	0.0	1	4.2	19	13.1	20	11.8
46 - 50 YEARS	0	0.0	1	4.2	21	14.5	22	13.0
51 - 55 YEARS	0	0.0	5	20.8	19	13.1	24	14.2
56 - 60 YEARS	0	0.0	0	0.0	8	5.5	8	4.7
61 - 65 YEARS	0	0.0	1	4.2	4	2.8	5	3.0
66 YEARS AND OVER	0	0.0	2	8.3	3	2.1	5	3.0
UNKNOWN	0	-	0	-	1	-	1	-
TOTAL	0	0.0	24	100.0	146	100.0	170	100.0

TABLE 3.0.17

2010 FIRE VEHICLE INVOLVED CRASHES

COUNTY QUARTILE ANALYSIS



¹LEGEND CATEGORIES ARE BASED ON QUARTILES OF COUNTIES.

RANK	COUNTY	FREQUENCY	PERCENT	RANK	COUNTY	FREQUENCY	PERCENT
1.0	ST LOUIS CITY	35	21.0	14.0	PLATTE	2	1.2
2.0	ST LOUIS	32	19.2	14.0	TANEY	2	1.2
3.0	JACKSON	25	15.0	-----			
4.0	JEFFERSON	7	4.2	Second Quartile			
6.0	CLAY	6	3.6	-----			
6.0	GREENE	6	3.6	Third Quartile			
6.0	ST CHARLES	6	3.6	29.5	BOONE	1	0.6
8.5	CAPE GIRARDEAU	4	2.4	29.5	BUCHANAN	1	0.6
8.5	LACLEDE	4	2.4	29.5	BUTLER	1	0.6
10.5	ADAIR	3	1.8	29.5	CALLAWAY	1	0.6
10.5	ST FRANCOIS	3	1.8	29.5	COOPER	1	0.6
-----				29.5	DADE	1	0.6
First Quartile				29.5	DAVISS	1	0.6
-----				29.5	FRANKLIN	1	0.6
Second Quartile				29.5	JASPER	1	0.6
14.0	CAMDEN	2	1.2	29.5	LAFAYETTE	1	0.6
14.0	JOHNSON	2	1.2	29.5	LEWIS	1	0.6
14.0	PIKE	2	1.2	29.5	MC DONALD	1	0.6

RANK	COUNTY	FREQUENCY	PERCENT	RANK	COUNTY	FREQUENCY	PERCENT
29.5	MONITEAU	1	0.6	79.0	HENRY	0	0.0
29.5	MONTGOMERY	1	0.6	79.0	HICKORY	0	0.0
29.5	NEWTON	1	0.6	79.0	HOLT	0	0.0
29.5	PETTIS	1	0.6	79.0	HOWARD	0	0.0
29.5	PHELPS	1	0.6	79.0	HOWELL	0	0.0
29.5	POLK	1	0.6	79.0	IRON	0	0.0
29.5	PULASKI	1	0.6	79.0	KNOX	0	0.0
29.5	RAY	1	0.6	79.0	LAWRENCE	0	0.0
29.5	RIPLEY	1	0.6	79.0	LINCOLN	0	0.0
29.5	SCOTT	1	0.6	79.0	LINN	0	0.0
29.5	SHANNON	1	0.6	79.0	LIVINGSTON	0	0.0
29.5	WARREN	1	0.6	79.0	MACON	0	0.0
29.5	WASHINGTON	1	0.6	79.0	MADISON	0	0.0
29.5	WEBSTER	1	0.6	79.0	MARIES	0	0.0
Third Quartile				79.0	MARION	0	0.0
Fourth Quartile				79.0	MERCER	0	0.0
79.0	ANDREW	0	0.0	79.0	MILLER	0	0.0
79.0	ATCHISON	0	0.0	79.0	MISSISSIPPI	0	0.0
79.0	AUDRAIN	0	0.0	79.0	MONROE	0	0.0
79.0	BARRY	0	0.0	79.0	MORGAN	0	0.0
79.0	BARTON	0	0.0	79.0	NEW MADRID	0	0.0
79.0	BATES	0	0.0	79.0	NODAWAY	0	0.0
79.0	BENTON	0	0.0	79.0	OREGON	0	0.0
79.0	BOLLINGER	0	0.0	79.0	OSAGE	0	0.0
79.0	CALDWELL	0	0.0	79.0	OZARK	0	0.0
79.0	CARROLL	0	0.0	79.0	PEMISCOT	0	0.0
79.0	CARTER	0	0.0	79.0	PERRY	0	0.0
79.0	CASS	0	0.0	79.0	PUTNAM	0	0.0
79.0	CEDAR	0	0.0	79.0	RALLS	0	0.0
79.0	CHARITON	0	0.0	79.0	RANDOLPH	0	0.0
79.0	CHRISTIAN	0	0.0	79.0	REYNOLDS	0	0.0
79.0	CLARK	0	0.0	79.0	ST CLAIR	0	0.0
79.0	CLINTON	0	0.0	79.0	STE GENEVIEVE	0	0.0
79.0	COLE	0	0.0	79.0	SALINE	0	0.0
79.0	CRAWFORD	0	0.0	79.0	SCHUYLER	0	0.0
79.0	DALLAS	0	0.0	79.0	SCOTLAND	0	0.0
79.0	DE KALB	0	0.0	79.0	SHELBY	0	0.0
79.0	DENT	0	0.0	79.0	STODDARD	0	0.0
79.0	DOUGLAS	0	0.0	79.0	STONE	0	0.0
79.0	DUNKLIN	0	0.0	79.0	SULLIVAN	0	0.0
79.0	GASCONADE	0	0.0	79.0	TEXAS	0	0.0
79.0	GENTRY	0	0.0	79.0	VERNON	0	0.0
79.0	GRUNDY	0	0.0	79.0	WAYNE	0	0.0
79.0	HARRISON	0	0.0	79.0	WORTH	0	0.0
				79.0	WRIGHT	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.

2010 SUMMARY ANALYSIS

- In 2010, there were 173 traffic crashes involving one or more ambulances in the State of Missouri. Zero people were killed and 60 were injured in these crashes.
- In 30.6% of the traffic crashes involving ambulances, the ambulance was on an emergency run at the time of the incident.
- Of all 2010 crashes involving ambulances, the first harmful event in 68.2% 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 12.7% of the cases, a motor vehicle struck a fixed object.
- Of all 2010 crashes involving ambulances, 72.3% occurred in an urban area of the State and 27.7% occurred in a rural area.
- Of all ambulance drivers involved in 2010 traffic crashes, 69.1% were male and 30.9% were female. The average age of the ambulance driver was 35.6 years.

2010 AMBULANCE INVOLVED CRASHES
EMERGENCY RUN STATUS

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%	TOTAL NUMBER¹ KILLED	TOTAL NUMBER¹ INJURED	AMBULANCE DRIVERS/PASSENGERS² KILLED	AMBULANCE DRIVERS/PASSENGERS² INJURED
AMBULANCE ON RUN	0	0.0	19	40.4	34	27.0	53	30.6	0	23	0	25
AMBULANCE NOT ON RUN	0	0.0	28	59.6	92	73.0	120	69.4	0	37	0	20
TOTAL	0	0.0	47	100.0	126	100.0	173	100.0	0	60	0	45

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

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

TABLE 4.0.1

2009 and 2010 AMBULANCE INVOLVED CRASH ANALYSIS

	2009	2010	RATE OF CHANGE
FATAL	2	0	-100.0
PERSONAL INJURY	45	47	+4.4
PROPERTY DAMAGE	121	126	+4.1
TOTAL	168	173	+3.0

TABLE 4.0.2

2010 AMBULANCE INVOLVED CRASHES

CRASH TYPE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
ANIMAL	0	0.0	1	2.1	14	11.1	15	8.7
BICYCLIST	0	0.0	2	4.3	0	0.0	2	1.2
FIXED OBJECT	0	0.0	6	12.8	16	12.7	22	12.7
OTHER OBJECT	0	0.0	0	0.0	1	0.8	1	0.6
PEDESTRIAN	0	0.0	2	4.3	0	0.0	2	1.2
VEHICLE IN TRANSPORT	0	0.0	34	72.3	84	66.7	118	68.2
PARKED VEHICLE	0	0.0	0	0.0	11	8.7	11	6.4
NON-COLLISION OTHER	0	0.0	2	4.3	0	0.0	2	1.2
TOTAL	0	0.0	47	100.0	126	100.0	173	100.0

TABLE 4.0.3

2010 AMBULANCE INVOLVED CRASHES

AREA CLASSIFICATION BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
URBAN	0	0.0	37	78.7	88	69.8	125	72.3
RURAL	0	0.0	10	21.3	38	30.2	48	27.7
TOTAL	0	0.0	47	100.0	126	100.0	173	100.0

TABLE 4.0.4

2010 AMBULANCE INVOLVED CRASHES

ROAD CURVATURE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
STRAIGHT	0	0.0	42	89.4	112	88.9	154	89.0
CURVE	0	0.0	5	10.6	14	11.1	19	11.0
UNKNOWN	0	-	0	-	0	-	0	-
TOTAL	0	0.0	47	100.0	126	100.0	173	100.0

TABLE 4.0.5

2010 AMBULANCE INVOLVED CRASHES

ROAD INCLINE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
LEVEL	0	0.0	35	74.5	94	75.8	129	75.4
HILL	0	0.0	11	23.4	27	21.8	38	22.2
CREST	0	0.0	1	2.1	3	2.4	4	2.3
UNKNOWN	0	-	0	-	2	-	2	-
TOTAL	0	0.0	47	100.0	126	100.0	173	100.0

TABLE 4.0.6

2010 AMBULANCE INVOLVED CRASHES
ROAD CONDITIONS BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
DRY	0	0.0	33	70.2	99	79.8	132	77.2
WET	0	0.0	10	21.3	15	12.1	25	14.6
SNOW	0	0.0	2	4.3	7	5.7	9	5.3
ICE	0	0.0	1	2.1	2	1.6	3	1.8
SLUSH	0	0.0	1	2.1	1	0.8	2	1.2
UNKNOWN	0	--	0	--	2	--	2	--
TOTAL	0	0.0	47	100.0	126	100.0	173	100.0

TABLE 4.0.7

2010 AMBULANCE INVOLVED CRASHES
HIGHWAY CLASSIFICATION BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
INTERSTATE	0	0.0	3	6.4	12	9.5	15	8.7
U.S. HIGHWAY	0	0.0	5	10.6	11	8.7	16	9.3
STATE NUMBERED	0	0.0	6	12.8	20	15.9	26	15.0
SINGLE STATE LETTERED	0	0.0	2	4.3	7	5.6	9	5.2
DOUBLE STATE LETTERED	0	0.0	0	0.0	2	1.6	2	1.2
OUTER ROAD	0	0.0	0	0.0	1	0.8	1	0.6
COUNTY ROAD	0	0.0	0	0.0	3	2.4	3	1.7
CITY STREET	0	0.0	30	63.8	65	51.6	95	54.9
OTHER ¹	0	0.0	1	2.1	5	4.0	6	3.5
TOTAL	0	0.0	47	100.0	126	100.0	173	100.0

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

TABLE 4.0.8

2010 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	2	5.4	7	8.0	9	7.2	0	0.0	1	10.0	5	13.2	6	12.5
U.S. HIGHWAY	0	0.0	3	8.1	4	4.6	7	5.6	0	0.0	2	20.0	7	18.4	9	18.8
STATE NUMBERED	0	0.0	2	5.4	6	6.8	8	6.4	0	0.0	4	40.0	14	36.8	18	37.5
SINGLE STATE LETTERED	0	0.0	0	0.0	3	3.4	3	2.4	0	0.0	2	20.0	4	10.5	6	12.5
DOUBLE STATE LETTERED	0	0.0	0	0.0	1	1.1	1	0.8	0	0.0	0	0.0	1	2.6	1	2.1
OUTER ROAD	0	0.0	0	0.0	1	1.1	1	0.8	0	0.0	0	0.0	0	0.0	0	0.0
COUNTY ROAD	0	0.0	0	0.0	1	1.1	1	0.8	0	0.0	0	0.0	2	5.3	2	4.2
CITY STREET	0	0.0	29	78.4	61	69.3	90	72.0	0	0.0	1	10.0	4	10.5	5	10.4
OTHER ¹	0	0.0	1	2.7	4	4.6	5	4.0	0	0.0	0	0.0	1	2.6	1	2.1
TOTAL	0	0.0	37	100.0	88	100.0	125	100.0	0	0.0	10	100.0	38	100.0	48	100.0

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

TABLE 4.0.9

2010 AMBULANCE INVOLVED CRASHES

MONTH OF YEAR

MONTH	FREQUENCY	PERCENT
JANUARY	12	6.9
FEBRUARY	14	8.1
MARCH	9	5.2
APRIL	20	11.6
MAY	17	9.8
JUNE	7	4.1
JULY	16	9.3
AUGUST	18	10.4
SEPTEMBER	15	8.7
OCTOBER	12	6.9
NOVEMBER	19	11.0
DECEMBER	14	8.1
TOTAL	173	100.0

TABLE 4.0.10

2010 AMBULANCE INVOLVED CRASHES

DAY OF WEEK

DAY	FREQUENCY	PERCENT
SUNDAY	18	10.4
MONDAY	21	12.1
TUESDAY	30	17.3
WEDNESDAY	16	9.3
THURSDAY	26	15.0
FRIDAY	37	21.4
SATURDAY	25	14.5
TOTAL	173	100.0

TABLE 4.0.11

2010 AMBULANCE INVOLVED CRASHES

HOUR OF DAY

HOUR	FREQUENCY	PERCENT
12:01A - 12:59A	4	2.3
01:00A - 01:59A	7	4.1
02:00A - 02:59A	6	3.5
03:00A - 03:59A	4	2.3
04:00A - 04:59A	1	0.6
05:00A - 05:59A	1	0.6
06:00A - 06:59A	3	1.7
07:00A - 07:59A	4	2.3
08:00A - 08:59A	9	5.2
09:00A - 09:59A	9	5.2
10:00A - 10:59A	9	5.2
11:00A - 11:59A	8	4.6
NOON - 12:59P	10	5.8
01:00P - 01:59P	10	5.8
02:00P - 02:59P	12	6.9
03:00P - 03:59P	13	7.5
04:00P - 04:59P	11	6.4
05:00P - 05:59P	13	7.5
06:00P - 06:59P	12	6.9
07:00P - 07:59P	9	5.2
08:00P - 08:59P	2	1.2
09:00P - 09:59P	7	4.1
10:00P - 10:59P	6	3.5
11:00P - MIDNIGHT	3	1.7
UNKNOWN	0	--
TOTAL	173	100.0

TABLE 4.0.12

2010 MISSOURI AMBULANCE CRASHES

TYPE OF CIRCUMSTANCE INVOLVED BY CRASH SEVERITY AND PERSON CLASSIFICATION¹

	FATAL AND PERSONAL INJURY AMBULANCE CRASHES = 47			TOTAL AMBULANCE CRASHES = 173		
	DRIVER OF AMBULANCE/ VEHICLE	OTHER DRIVER/ VEHICLE/ PEDESTRIAN	TOTAL F & PI	DRIVER OF AMBULANCE/ VEHICLE	OTHER DRIVER/ VEHICLE/ PEDESTRIAN	TOTAL CRASHES
VEHICLE DEFECTS	6.4	2.1	8.5	1.7	2.3	4.0
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	0.0	0.0
EXCEEDING SPEED LIMIT / TOO FAST FOR CONDITIONS	8.5	8.5	17.0	2.3	5.8	8.1
IMPROPER PASSING	0.0	0.0	0.0	1.2	0.6	1.7
VIOLATION OF STOP SIGN	4.3	2.1	6.4	1.2	1.7	2.9
WRONG SIDE NOT PASSING	0.0	0.0	0.0	0.6	1.2	1.7
FOLLOWING TOO CLOSE	4.3	4.3	8.5	4.0	4.0	7.5
IMPROPER SIGNAL	0.0	0.0	0.0	0.0	0.0	0.0
IMPROPER BACKING	0.0	0.0	0.0	4.0	0.6	4.6
IMPROPER TURN	0.0	0.0	0.0	2.3	1.7	3.5
IMPROPER LANE USAGE / CHANGE	4.3	2.1	6.4	4.0	4.0	7.5
WRONG WAY ONE-WAY STREET	0.0	0.0	0.0	0.0	0.0	0.0
IMPROPER START FROM PARK	0.0	2.1	2.1	0.0	0.6	0.6
IMPROPERLY PARKED	0.0	0.0	0.0	0.0	0.0	0.0
FAILED TO YIELD	10.6	14.9	25.5	3.5	12.7	16.2
DRINKING	4.3	2.1	6.4	1.2	1.2	2.3
DRUGS	0.0	0.0	0.0	0.0	0.0	0.0
PHYSICAL IMPAIRMENT	4.3	0.0	4.3	2.9	0.6	3.5
INATTENTION	17.0	17.0	29.8	16.2	12.7	27.2

¹This 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 2010 Missouri ambulance crashes, it was found that an ambulance driver was speeding in 8.5% of the crashes. In 8.5% of the crashes another driver was speeding. In 17.0% of the crashes either an ambulance driver, another driver, or both drivers were speeding.

TABLE 4.0.13

AMBULANCE VEHICLES INVOLVED IN 2010 MISSOURI CRASHES

TYPE OF VEHICLE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
AUTOMOBILE	0	0.0	10	20.0	6	4.7	16	8.9
SPORT UTILITY VEHICLE	0	0.0	3	6.0	2	1.6	5	2.8
VAN	0	0.0	6	12.0	28	21.7	34	19.0
MOTORCYCLE	0	0.0	0	0.0	0	0.0	0	0.0
BUS	0	0.0	0	0.0	1	0.8	1	0.6
MOPED	0	0.0	0	0.0	0	0.0	0	0.0
ATV	0	0.0	1	2.0	0	0.0	1	0.6
BICYCLE	0	0.0	2	4.0	0	0.0	2	1.1
OTHER TRANSPORT DEVICE	0	0.0	7	14.0	35	27.1	42	23.5
PICK-UP TRUCK	0	0.0	4	8.0	4	3.1	8	4.5
OTHER TRUCK	0	0.0	17	34.0	53	41.1	70	39.1
UNKNOWN	0	-	0	-	1	-	1	-
TOTAL	0	0.0	50	100.0	130	100.0	180	100.0

TABLE 4.0.14

AMBULANCES INVOLVED IN 2010 MISSOURI CRASHES

DRIVER INVOLVEMENT BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
KNOWN DRIVER INVOLVED	0	0.0	49	98.0	126	96.9	175	97.2
UNKNOWN DRIVER INVOLVED	0	0.0	1	2.0	4	3.1	5	2.8
TOTAL	0	0.0	50	100.0	130	100.0	180	100.0

TABLE 4.0.15

DRIVERS OF AMBULANCES INVOLVED IN 2010 MISSOURI CRASHES

SEX OF DRIVER BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
MALE	0	0.0	30	61.2	91	72.2	121	69.1
FEMALE	0	0.0	19	38.8	35	27.8	54	30.9
UNKNOWN	0	-	1	-	4	-	5	-
TOTAL	0	0.0	50	100.0	130	100.0	180	100.0

TABLE 4.0.16

DRIVERS OF AMBULANCES INVOLVED IN 2010 MISSOURI CRASHES

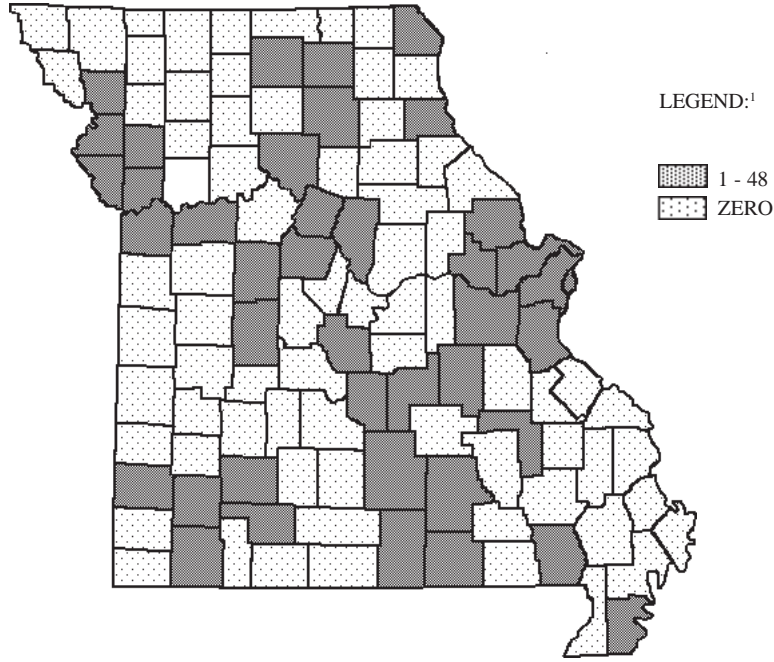
AGE OF DRIVER BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
AVERAGE AGE OF DRIVER	-	-	32.8	-	36.8	-	35.6	-
14 YEARS AND UNDER	0	0.0	0	0.0	0	0.0	0	0.0
15 - 20 YEARS	0	0.0	4	8.2	2	1.6	6	3.5
21 - 25 YEARS	0	0.0	10	20.4	13	10.4	23	13.2
26 - 30 YEARS	0	0.0	13	26.5	38	30.4	51	29.3
31 - 35 YEARS	0	0.0	7	14.3	17	13.6	24	13.8
36 - 40 YEARS	0	0.0	3	6.1	17	13.6	20	11.5
41 - 45 YEARS	0	0.0	3	6.1	9	7.2	12	6.9
46 - 50 YEARS	0	0.0	5	10.2	14	11.2	19	10.9
51 - 55 YEARS	0	0.0	2	4.1	6	4.8	8	4.6
56 - 60 YEARS	0	0.0	2	4.1	6	4.8	8	4.6
61 - 65 YEARS	0	0.0	0	0.0	0	0.0	0	0.0
66 YEARS AND OVER	0	0.0	0	0.0	3	2.4	3	1.7
UNKNOWN	0	-	1	-	5	-	6	-
TOTAL	0	0.0	50	100.0	130	100.0	180	100.0

TABLE 4.0.17

2010 AMBULANCE 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 CITY	48	27.7	30.5	ADAIR	1	0.6
2.0	ST LOUIS	24	13.9	30.5	ANDREW	1	0.6
3.0	JACKSON	19	11.0	30.5	BUCHANAN	1	0.6
4.0	GREENE	12	6.9	30.5	BUTLER	1	0.6
5.0	ST CHARLES	9	5.2	30.5	CHARITON	1	0.6
6.5	BOONE	5	2.9	30.5	CLARK	1	0.6
6.5	JEFFERSON	5	2.9	30.5	CLINTON	1	0.6
10.0	BENTON	3	1.7	30.5	COOPER	1	0.6
10.0	CHRISTIAN	3	1.7	30.5	FRANKLIN	1	0.6
10.0	CLAY	3	1.7	30.5	HOWARD	1	0.6
10.0	PETTIS	3	1.7	30.5	IRON	1	0.6
10.0	PHELPS	3	1.7	30.5	LAFAYETTE	1	0.6
16.0	BARRY	2	1.2	30.5	LAWRENCE	1	0.6
16.0	CRAWFORD	2	1.2	30.5	LINCOLN	1	0.6
16.0	HOWELL	2	1.2	30.5	MARION	1	0.6
16.0	JASPER	2	1.2	30.5	OREGON	1	0.6
16.0	MACON	2	1.2	30.5	PEMISCOT	1	0.6
16.0	MILLER	2	1.2	30.5	PULASKI	1	0.6
16.0	PLATTE	2	1.2				

RANK	COUNTY	FREQUENCY	PERCENT	RANK	COUNTY	FREQUENCY	PERCENT
30.5	SHANNON	1	0.6	78.5	LIVINGSTON	0	0.0
30.5	SULLIVAN	1	0.6	78.5	MC DONALD	0	0.0
30.5	TEXAS	1	0.6	78.5	MADISON	0	0.0
30.5	WARREN	1	0.6	78.5	MARIES	0	0.0

		First Quartile					

		Second Quartile					
78.5	ATCHISON	0	0.0	78.5	MONITEAU	0	0.0
78.5	AUDRAIN	0	0.0	78.5	MONROE	0	0.0
78.5	BARTON	0	0.0	78.5	MONTGOMERY	0	0.0
78.5	BATES	0	0.0	78.5	MORGAN	0	0.0
78.5	BOLLINGER	0	0.0	78.5	NEW MADRID	0	0.0
78.5	CALDWELL	0	0.0	78.5	NEWTON	0	0.0
78.5	CALLAWAY	0	0.0	78.5	NODAWAY	0	0.0
78.5	CAMDEN	0	0.0	78.5	OSAGE	0	0.0
78.5	CAPE GIRARDEAU	0	0.0	78.5	OZARK	0	0.0
78.5	CARROLL	0	0.0	78.5	PERRY	0	0.0
78.5	CARTER	0	0.0	78.5	PIKE	0	0.0
78.5	CASS	0	0.0	78.5	POLK	0	0.0
78.5	CEDAR	0	0.0	78.5	PUTNAM	0	0.0
78.5	COLE	0	0.0	78.5	RALLS	0	0.0
78.5	DADE	0	0.0	78.5	RANDOLPH	0	0.0
78.5	DALLAS	0	0.0	78.5	RAY	0	0.0
78.5	DAVISS	0	0.0	78.5	REYNOLDS	0	0.0
78.5	DE KALB	0	0.0	78.5	RIPLEY	0	0.0
78.5	DENT	0	0.0	78.5	ST CLAIR	0	0.0
78.5	DOUGLAS	0	0.0	78.5	ST FRANCOIS	0	0.0
78.5	DUNKLIN	0	0.0	78.5	STE GENEVIEVE	0	0.0
78.5	GASCONADE	0	0.0	78.5	SALINE	0	0.0
78.5	GENTRY	0	0.0	78.5	SCHUYLER	0	0.0
78.5	GRUNDY	0	0.0	78.5	SCOTLAND	0	0.0
78.5	HARRISON	0	0.0	78.5	SCOTT	0	0.0
78.5	HENRY	0	0.0	78.5	SHELBY	0	0.0
78.5	HICKORY	0	0.0	78.5	STODDARD	0	0.0
78.5	HOLT	0	0.0	78.5	STONE	0	0.0
78.5	JOHNSON	0	0.0	78.5	TANEY	0	0.0
78.5	KNOX	0	0.0	78.5	VERNON	0	0.0
78.5	LACLEDE	0	0.0	78.5	WASHINGTON	0	0.0
78.5	LEWIS	0	0.0	78.5	WAYNE	0	0.0
78.5	LINN	0	0.0	78.5	WEBSTER	0	0.0
				78.5	WORTH	0	0.0
				78.5	WRIGHT	0	0.0

TABLE 4.0.18

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:

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

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.