Missouri
Statistical
Analysis Center

2011

MISSOURI

EMERGENCY SERVICE VEHICLE

CRASHES

MISSOURI STATE HIGHWAY PATROL
STATISTICAL ANALYSIS CENTER
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FOREWORD

The mission of the Missouri Department of Transportation, 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 2011 Missouri Emergency Vehicle Crashes report was produced by the Statistical Analysis Center of the Missouri State Highway Patrol at the request of the Traffic and 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, Traffic and Highway Safety Division at 1-800-800-2358.

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

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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, 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 2011, Missouri experienced 1,412 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 2011, 1,455 emergency service vehicles were involved in crashes in the State. Five persons were killed and 227 persons were injured in these traffic crashes. Of the 1,455 emergency service vehicles involved, 326 (22.4%) 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 1,455 emergency vehicles involved in 2011 traffic crashes, 1,104 (75.9%) 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 1,455 emergency vehicles involved in 2011 Missouri traffic crashes, 157 (10.8%) 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 326 vehicles making an emergency run when involved in a traffic crash in 2011, 68 (20.9%) were vehicles of this type.

Of the 1,455 emergency service vehicles involved in 2011 Missouri traffic crashes, 151(10.4%) were ambulances. Ambulances also made up a higher proportion of emergency service vehicles involved in traffic crashes while making emergency runs. Of the 326 emergency service vehicles involved in 2011 Missouri traffic crashes while on emergency runs, 50 (15.3%) 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 2009 - 2011 with emphasis on the most recent year (2011).

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 2011 there were 1,412 traffic crashes involving 1,455 emergency service vehicles in the State of Missouri. Five persons were killed and 287 persons were injured in these traffic crashes. One person was killed or injured every 1.3 days in these types of crashes in 2011.

- Police vehicles comprise the largest number of emergency service vehicles involved in Missouri's traffic crashes. Of the 1,455 emergency service vehicles involved, 1,104 (75.9%) were police vehicles. A total of 326 emergency service vehicles were on emergency runs when the traffic crash occurred. Of these,186 (57.1%) 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.

- Fire vehicles were the second most common type of emergency vehicle involved in Missouri's traffic crashes in 2011. Of the 1,455 emergency vehicles involved in 2011 Missouri traffic crashes, 157 (10.8%) were fire vehicles. Of the 326 emergency vehicles on emergency run at the time of the traffic crash, 68 (20.9%) were fire vehicles.

- Ambulances were the third most frequent emergency vehicle type involved in Missouri's 2011 traffic crashes. Of the 1,455 emergency vehicles involved, 151 (10.4%) were ambulances. Like fire vehicles, ambulances were more likely to be involved in a traffic crash when on an emergency run. Of the 326 emergency vehicles on emergency run when the traffic crash occurred, 50 (15.3%) were ambulances.

- Emergency vehicles classified as 'Other' made up a small proportion of those involved in Missouri's 2011 traffic crashes. Of the 1,455 emergency vehicles involved, only 43 (2.9%) were emergency vehicles classified as 'Other'.

2011 MISSOURI TRAFFIC CRASHES

EMERGENCY SERVICE (ES) VEHICLE INVOLVEMENT

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
ES VEHICLE INVOLVED	5	0.7	224	0.6	1,180	1.1	1,409	1.0
NO ES VEHICLE INVOLVED	711	99.3	35,217	99.4	105,629	98.9	141,557	99.0
TOTAL	716	100.0	35,441	100.0	106,809	100.0	142,966	100.0

TABLE 1.0.1

MISSOURI EMERGENCY SERVICE VEHICLE INVOLVED CRASHES

2009 - 2011

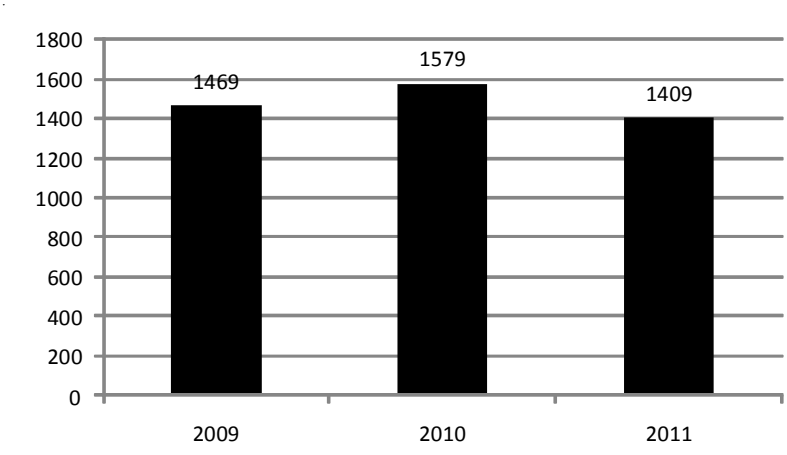


FIGURE 1.0.1

MISSOURI EMERGENCY SERVICE VEHICLE PERSONAL INJURY PROBLEM ANALYSIS CLOCK

2011

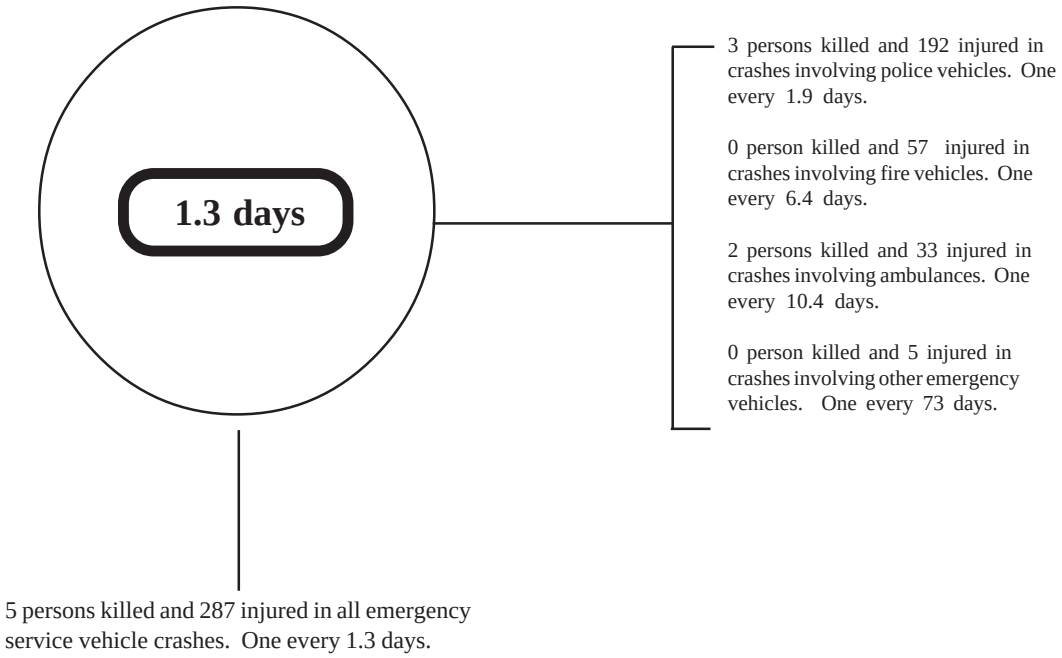


FIGURE 1.0.2

2011 MISSOURI EMERGENCY SERVICE (ES) VEHICLE CRASHES

TYPE OF EMERGENCY SERVICE VEHICLE INVOLVED

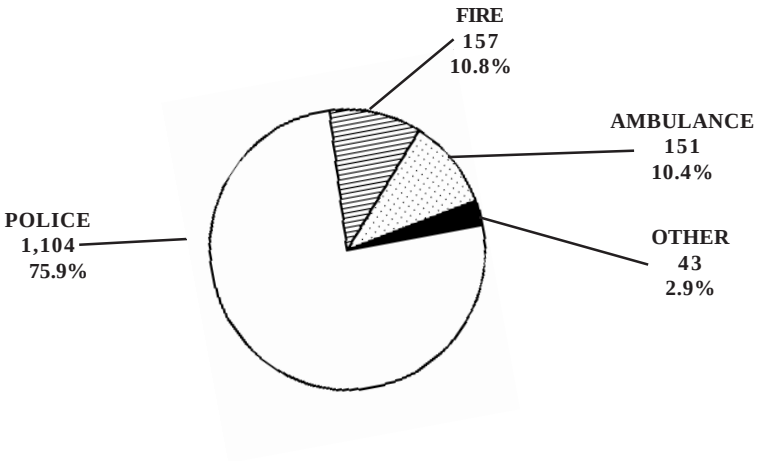
	FATAL	PERSONAL INJURY	PROPERTY DAMAGE	TOTAL	NUMBER OF ES VEHICLES INVOLVED[1]
TOTAL NUMBER OF ES VEHICLE CRASHES	**5**	**225**	**1,182**	**1,412**	**1,455**
INVOLVING					
POLICE VEHICLE	3	164	903	1,070	1,104
FIRE VEHICLE	0	33	120	153	157
AMBULANCE	2	19	128	149	151
OTHER ES VEHICLE	0	9	31	40	43

[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 1,412 traffic crashes involving 1,455 emergency service vehicles

TABLE 1.0.2

TYPE OF EMERGENCY SERVICE VEHICLES INVOLVED IN

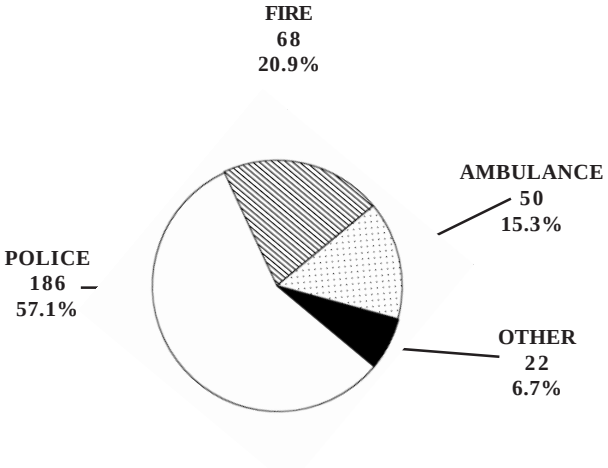
2011 MISSOURI TRAFFIC CRASHES



TOTAL = 1,455

FIGURE 1.0.3

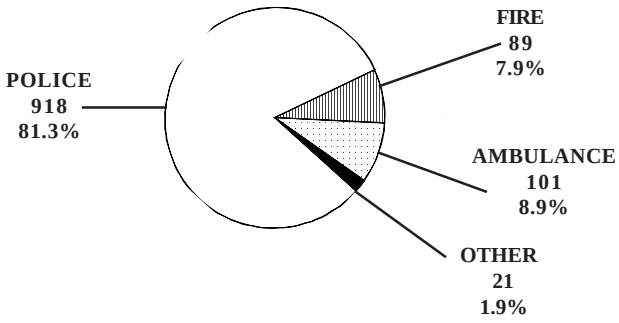
TYPE OF EMERGENCY SERVICE VEHICLES INVOLVED IN 2011 MISSOURI TRAFFIC CRASHES WHILE ON EMERGENCY RUN



TOTAL = 326

FIGURE 1.0.4

TYPE OF EMERGENCY SERVICE VEHICLES INVOLVED IN 2011 MISSOURI TRAFFIC CRASHES NOT ON EMERGENCY RUN



TOTAL = 1,129

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.

2011 SUMMARY ANALYSIS

- In 2011, there were 1,070 traffic crashes involving one or more police vehicles in the State of Missouri. Three people were killed and 192 were injured in these crashes.
- In 17.0% of the traffic crashes involving police vehicles, the police vehicle was on an emergency run at the time of the incident.
- In 2011, one person was killed or injured in a police vehicle related crash every 1.9 days in the State of Missouri.
- Of all 2011 crashes involving police vehicles, the first harmful event in 50.7% of the cases involved one motor vehicle in transport striking another motor vehicle in transport. In 22.7% of the cases, it involved a motor vehicle striking a fixed object. In 17.0% of the cases, the vehicle struck an animal.
- Of all 2011 crashes involving police vehicles, 54.1% occurred in an urban area of the State and 45.9% occurred in a rural area.
- Of all police vehicle drivers in 2011 traffic crashes, 90.9% were male and 9.1% were female. The average age of the police vehicle driver was 36.7 years.
- There were 1,104 police vehicles in the 1,070 traffic crashes in the State. Of these, 914 or 82.9% were automobiles.

2011 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	47	28.7	135	15.0	182	17.0	0	68	1	95
POLICE VEHICLE NOT ON RUN	3	100.0	117	71.3	768	85.0	888	83.0	3	124	0	43
TOTAL	3	100.0	164	100.0	903	100.0	1,070	100.0	3	192	1	139

[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

2010 and 2011 POLICE VEHICLE INVOLVED CRASH ANALYSIS

	2010	2011	RATE OF CHANGE
FATAL	3	3	0.0
PERSONAL INJURY	181	164	-9.4
PROPERTY DAMAGE	999	903	-9.6
TOTAL	1,183	1,070	-9.5

TABLE 2.0.2

2011 POLICE VEHICLE INVOLVED CRASHES

CRASH TYPE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
ANIMAL	0	0.0	9	5.5	173	19.2	182	17.0
BICYCLIST	0	0.0	3	1.8	2	0.2	5	0.5
FIXED OBJECT	1	33.3	20	12.2	222	24.6	243	22.7
OTHER OBJECT	0	0.0	2	1.2	38	4.2	40	3.7
PEDESTRIAN	0	0.0	3	1.8	2	0.2	5	0.5
VEHICLE IN TRANSPORT	2	66.7	122	74.4	419	46.4	543	50.7
VEHICLE ON OTHER ROADWAY	0	0.0	0	0.0	0	0.0	0	0.0
PARKED VEHICLE	0	0.0	3	1.9	41	4.5	44	4.1
NON-COLLISION OVERTURN	0	0.0	2	1.2	1	0.1	3	0.3
NON-COLLISION OTHER	0	0.0	0	0.0	5	0.6	5	0.5
TOTAL	3	100.0	164	100.0	903	100.0	1,070	100.0

TABLE 2.0.3

2011 POLICE VEHICLE INVOLVED CRASHES

AREA CLASSIFICATION BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
URBAN	0	0.0	106	64.6	473	52.4	579	54.1
RURAL	3	100.0	58	35.4	430	47.6	491	45.9
TOTAL	3	100.0	164	100.0	903	100.0	1,070	100.0

TABLE 2.0.4

2011 POLICE VEHICLE INVOLVED CRASHES

ROAD CURVATURE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
STRAIGHT	2	66.7	139	84.8	767	85.4	908	85.3
CURVE	1	33.3	25	15.2	131	14.6	157	14.7
UNKNOWN	0	-	0	-	5	-	5	-
TOTAL	3	100.0	164	100.0	903	100.0	1,070	100.0

TABLE 2.0.5

2011 POLICE VEHICLE INVOLVED CRASHES

ROAD INCLINE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
LEVEL	1	33.3	112	69.1	578	65.2	691	65.7
HILL	2	66.7	47	29.0	282	31.8	331	31.5
CREST	0	0.0	3	1.9	26	3.0	29	2.8
UNKNOWN	0	-	2	-	17	-	19	-
TOTAL	3	100.0	164	100.0	903	100.0	1,070	100.0

TABLE 2.0.6

2011 POLICE VEHICLE INVOLVED CRASHES

ROAD CONDITIONS BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
DRY	0	0.0	133	81.1	696	77.5	829	77.8
WET	2	66.7	23	14.0	124	13.8	149	14.0
SNOW	1	33.3	7	4.3	55	6.1	63	5.9
ICE	0	0.0	1	0.6	17	1.9	18	1.7
SLUSH	0	0.0	0	0.0	3	0.3	3	0.3
MUD	0	0.0	0	0.0	3	0.3	3	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	-	0	-	5	-	5	-
TOTAL	3	100.0	164	100.0	903	100.0	1,070	100.0

TABLE 2.0.7

2011 POLICE VEHICLE INVOLVED CRASHES

HIGHWAY CLASSIFICATION BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
INTERSTATE	0	0.0	14	8.6	105	11.6	119	11.1
U.S. HIGHWAY	2	66.7	20	12.2	98	10.9	120	11.2
STATE NUMBERED	1	33.3	31	18.9	147	16.3	179	16.7
SINGLE STATE LETTERED	0	0.0	10	6.1	59	6.5	69	6.5
DOUBLE STATE LETTERED	0	0.0	4	2.4	25	2.8	29	2.7
OUTER ROAD	0	0.0	2	1.2	6	0.7	8	0.8
COUNTY ROAD	0	0.0	11	6.7	81	9.0	92	8.6
CITY STREET	0	0.0	66	40.2	339	37.6	405	37.9
INTERSTATE LOOP	0	0.0	0	0.0	1	0.1	1	0.1
OTHER[1]	0	0.0	6	3.7	42	4.5	48	4.4
TOTAL	3	100.0	164	100.0	903	100.0	1,070	100.0

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

TABLE 2.0.8

2011 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	11	10.4	61	12.9	72	12.5	0	0.0	3	5.2	44	10.2	47	9.6
U.S. HIGHWAY	0	0.0	10	9.4	35	7.4	45	7.8	2	66.7	10	17.2	63	14.7	75	15.3
STATE NUMBERED	0	0.0	14	13.2	44	9.3	58	10.0	1	33.3	17	29.3	103	24.0	121	24.6
SINGLE STATE LETTERED	0	0.0	2	1.9	10	2.1	12	2.1	0	0.0	8	13.8	49	11.4	57	11.6
DOUBLE STATE LETTERED	0	0.0	2	1.9	5	1.1	7	1.2	0	0.0	2	3.5	20	4.7	22	4.5
OUTER ROAD	0	0.0	2	1.9	2	0.4	4	0.7	0	0.0	0	0.0	4	0.9	4	0.8
COUNTY ROAD	0	0.0	2	1.9	11	2.3	13	2.3	0	0.0	9	15.5	70	16.3	79	16.1
CITY STREET	0	0.0	61	57.6	281	59.5	342	59.2	0	0.0	5	8.6	58	13.5	63	12.8
INTERSTATE LOOP	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.2	1	0.2
OTHER [1]	0	0.0	2	1.9	24	4.9	25	4.3	0	0.0	4	6.9	18	4.2	22	4.5
TOTAL	0	0.0	106	100.0	473	100.0	579	100.0	3	100.0	58	100.0	430	100.0	491	100.0

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

TABLE 2.0.9

2011 POLICE VEHICLE INVOLVED CRASHES

MONTH OF YEAR

MONTH	FREQUENCY	PERCENT
JANUARY	100	9.4
FEBRUARY	97	9.0
MARCH	76	7.1
APRIL	67	6.3
MAY	85	7.9
JUNE	91	8.5
JULY	88	8.2
AUGUST	96	9.0
SEPTEMBER	80	7.5
OCTOBER	100	9.3
NOVEMBER	95	8.9
DECEMBER	95	8.9
TOTAL	1,070	100.0

TABLE 2.0.10

2011 POLICE VEHICLE INVOLVED CRASHES

DAY OF WEEK

DAY	FREQUENCY	PERCENT
SUNDAY	111	10.4
MONDAY	147	13.7
TUESDAY	158	14.7
WEDNESDAY	159	14.9
THURSDAY	169	15.8
FRIDAY	167	15.6
SATURDAY	159	14.9
UNKNOWN	0	-
TOTAL	1,070	100.0

TABLE 2.0.11

2011 POLICE VEHICLE INVOLVED CRASHES

HOUR OF DAY

HOUR	FREQUENCY	PERCENT
12:01A - 12:59A	48	4.5
01:00A - 01:59A	51	4.8
02:00A - 02:59A	45	4.2
03:00A - 03:59A	29	2.7
04:00A - 04:59A	21	2.0
05:00A - 05:59A	17	1.6
06:00A - 06:59A	29	2.7
07:00A - 07:59A	33	3.1
08:00A - 08:59A	60	5.6
09:00A - 09:59A	26	2.4
10:00A - 10:59A	36	3.4
11:00A - 11:59A	29	2.7
NOON - 12:59P	64	6.0
01:00P - 01:59P	54	5.1
02:00P - 02:59P	47	4.4
03:00P - 03:59P	54	5.1
04:00P - 04:59P	67	6.3
05:00P - 05:59P	47	4.4
06:00P - 06:59P	50	4.7
07:00P - 07:59P	49	4.6
08:00P - 08:59P	56	5.2
09:00P - 09:59P	47	4.4
10:00P - 10:59P	50	4.7
11:00P - MIDNIGHT	58	5.4
UNKNOWN	3	--
TOTAL	1,070	100.0

TABLE 2.0.12

2011 MISSOURI POLICE VEHICLE CRASHES

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

	FATAL AND PERSONAL INJURY POLICE VEHICLE CRASHES = 167			TOTAL POLICE VEHICLE CRASHES = 1,070		
	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	1.2	0.6	1.8	0.7	1.2	2.0
TRAFFIC CONTROL INOPERATIVE / MISSING	0.0	0.0	0.0	0.1	0.0	0.1
IMPROPERLY STOPPED ON ROADWAY	0.0	2.4	2.4	0.2	0.7	0.8
EXCEEDING SPEED LIMIT / TOO FAST FOR CONDITIONS	13.2	6.6	19.8	9.0	4.4	13.4
IMPROPER PASSING	1.2	0.6	1.8	0.6	0.6	1.1
VIOLATION OF STOP SIGN	2.4	4.8	7.2	1.2	1.2	2.4
WRONG SIDE NOT PASSING	0.0	2.4	2.4	0.6	1.1	1.7
FOLLOWING TOO CLOSE	5.4	3.0	8.4	3.4	3.2	6.5
IMPROPER SIGNAL	0.0	1.2	1.2	0.0	0.3	0.3
IMPROPER BACKING	1.8	0.6	2.4	4.3	3.3	7.6
IMPROPER TURN	2.4	3.0	5.4	2.2	1.8	4.0
IMPROPER LANE USAGE / CHANGE	3.6	3.0	6.6	2.3	3.4	5.6
WRONG WAY ONE-WAY STREET	0.6	0.6	1.2	0.1	0.5	0.6
IMPROPER START FROM PARK	0.0	1.2	1.2	0.3	0.2	0.5
IMPROPERLY PARKED	0.0	0.0	0.0	0.2	0.0	0.2
FAILED TO YIELD	4.8	31.1	34.1	3.1	11.1	13.7
DRINKING	0.6	3.6	4.2	0.7	2.5	3.2
DRUGS	0.0	1.2	1.2	0.1	0.8	0.9
PHYSICAL IMPAIRMENT	1.2	1.8	3.0	0.3	0.5	0.7
INATTENTION	12.0	15.0	26.3	17.9	9.8	27.4

[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 2011 Missouri police vehicle crashes, it was found that a police vehicle driver was speeding in 13.2% of the crashes. In 6.6% of the crashes another driver was speeding. In 19.8% of the crashes either a police vehicle driver, another driver, or both drivers were speeding.

TABLE 2.0.13

POLICE VEHICLES INVOLVED IN 2011 MISSOURI CRASHES

TYPE OF VEHICLE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
AUTOMOBILE	3	100.0	141	83.4	770	82.8	914	82.9
SPORT UTILITY VEHICLE	0	0.0	9	5.3	85	9.1	94	8.5
VAN	0	0.0	2	1.2	10	1.1	12	1.1
BUS	0	0.0	0	0.0	1	0.1	1	0.1
MOTORCYCLE	0	0.0	7	4.1	1	0.1	8	0.7
BICYCLE	0	0.0	0	0.0	0	0.0	0	0.0
ATV	0	0.0	0	0.0	1	0.1	1	0.1
OTHER TRANSPORT	0	0.0	0	0.0	1	0.1	1	0.1
PICK-UP TRUCK	0	0.0	10	5.9	54	5.8	64	5.8
OTHER TRUCK	0	0.0	0	0.0	7	0.8	7	0.6
UNKNOWN	0	-	0	-	2	-	2	-
TOTAL	3	100.0	169	100.0	932	100.0	1,104	100.0

TABLE 2.0.14

POLICE VEHICLES INVOLVED IN 2011 MISSOURI CRASHES

DRIVER INVOLVEMENT BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
KNOWN DRIVER INVOLVED	3	100.0	169	100.0	927	99.5	1,099	99.6
UNKNOWN DRIVER INVOLVED	0	0.0	0	0.0	5	0.5	5	0.4
TOTAL	3	100.0	169	100.0	932	100.0	1,104	100.0

TABLE 2.0.15

DRIVERS OF POLICE VEHICLES INVOLVED IN 2011 MISSOURI CRASHES

SEX OF DRIVER BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
MALE	3	100.0	153	90.5	843	90.9	999	90.9
FEMALE	0	0.0	16	9.5	84	9.1	100	9.1
UNKNOWN	0	-	0	-	5	-	5	-
TOTAL	3	100.0	169	100.0	932	100.0	1,104	100.0

TABLE 2.0.16

DRIVERS OF POLICE VEHICLES INVOLVED IN 2011 MISSOURI CRASHES

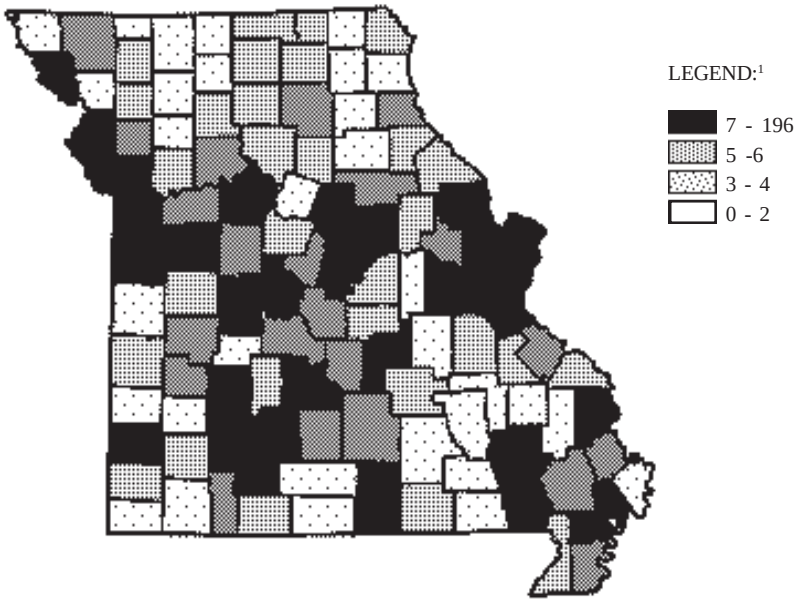
AGE OF DRIVER BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
AVERAGE AGE OF DRIVER	46.0	-	36.6	-	36.7	-	36.7	-
15 - 20 YEARS	0	0.0	3	1.8	13	1.4	16	1.5
21 - 25 YEARS	0	0.0	25	15.1	121	13.2	146	13.4
26 - 30 YEARS	1	33.3	28	16.9	181	19.7	210	19.3
31 - 35 YEARS	0	0.0	27	16.3	158	17.2	185	17.0
36 - 40 YEARS	0	0.0	32	19.3	148	16.1	180	16.6
41 - 45 YEARS	1	33.3	23	13.9	124	13.5	148	13.6
46 - 50 YEARS	0	0.0	9	5.4	61	6.6	70	6.4
51 - 55 YEARS	0	0.0	6	3.6	50	5.5	56	5.2
56 - 60 YEARS	0	0.0	8	4.8	35	3.8	43	4.0
61 - 65 YEARS	0	0.0	2	1.2	16	1.7	18	1.7
66 YEARS AND OVER	1	33.3	3	1.8	11	1.2	15	1.4
UNKNOWN	0	-	3	-	14	-	17	-
TOTAL	3	100.0	169	100.0	932	100.0	1,104	100.0

TABLE 2.0.17

2011 POLICE VEHICLE INVOLVED CRASHES

COUNTY QUARTILE ANALYSIS



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

RANK	COUNTY	FREQUENCY	PERCENT
1.0	ST LOUIS	196	18.3
2.0	JACKSON	83	7.8
3.0	ST LOUIS CITY	69	6.4
4.0	ST CHARLES	64	6.0
5.0	GREENE	36	3.4
6.0	JEFFERSON	33	3.1
7.0	JASPER	28	2.6
8.0	CLAY	26	2.4
9.0	BOONE	25	2.3
10.0	FRANKLIN	22	2.1
11.0	PLATTE	20	1.9
12.5	CAPE GIRARDEAU	17	1.6
12.5	COLE	17	1.6
14.0	CASS	16	1.5
15.5	CALLAWAY	15	1.4
15.5	PHELPS	15	1.4
17.0	BUCHANAN	13	1.2
19.5	BENTON	10	0.9
19.5	BUTLER	10	0.9
19.5	LINCOLN	10	0.9
19.5	WEBSTER	10	0.9
23.5	CHRISTIAN	9	0.8
23.5	JOHNSON	9	0.8
23.5	MORGAN	9	0.8
23.5	WAYNE	9	0.8
26.0	HOWELL	8	0.7
29.0	HOLT	7	0.7
29.0	LACLEDE	7	0.7
29.0	NEW MADRID	7	0.7
29.0	POLK	7	0.7
29.0	SALINE	7	0.7
			First Quartile
			Second Quartile
35.5	AUDRAIN	6	0.6
35.5	CAMDEN	6	0.6
35.5	LAFAYETTE	6	0.6
35.5	MILLER	6	0.6
35.5	PEMISCOT	6	0.6
35.5	PETTIS	6	0.6
35.5	PULASKI	6	0.6
35.5	ST CLAIR	6	0.6

RANK	COUNTY	FREQUENCY	PERCENT
46.5	CARROLL	5	0.5
46.5	CEDAR	5	0.5
46.5	CLINTON	5	0.5
46.5	MACON	5	0.5
46.5	MARION	5	0.5
46.5	MONITEAU	5	0.5
46.5	NODAWAY	5	0.5
46.5	STE GENEVIEVE	5	0.5
46.5	SCOTT	5	0.5
46.5	STODDARD	5	0.5
46.5	STONE	5	0.5
46.5	TEXAS	5	0.5
46.5	WARREN	5	0.5
46.5	WRIGHT	5	0.5
			Second Quartile
59.5	ADAIR	4	0.4
59.5	DALLAS	4	0.4
59.5	DENT	4	0.4
59.5	HENRY	4	0.4
59.5	LIVINGSTON	4	0.4
59.5	MARIES	4	0.4
59.5	NEWTON	4	0.4
59.5	PERRY	4	0.4
59.5	PIKE	4	0.4
59.5	ST FRANCOIS	4	0.4
59.5	SULLIVAN	4	0.4
59.5	WASHINGTON	4	0.4
74.5	CHARITON	3	0.3
74.5	CLARK	3	0.3
74.5	COOPER	3	0.3
74.5	DE KALB	3	0.3
74.5	DUNKLIN	3	0.3
74.5	GENTRY	3	0.3
74.5	LAWRENCE	3	0.3
74.5	LINN	3	0.3
74.5	MONTGOMERY	3	0.3
74.5	OREGON	3	0.3
74.5	OSAGE	3	0.3
74.5	PUTNAM	3	0.3
74.5	RALLS	3	0.3
74.5	RANDOLPH	3	0.3
74.5	RAY	3	0.3
74.5	SCHUYLER	3	0.3
74.5	TANEY	3	0.3
74.5	VERNON	3	0.3
			Third Quartile
90.0	ANDREW	2	0.2
90.0	BARRY	2	0.2
90.0	BARTON	2	0.2
90.0	BATES	2	0.2
90.0	CRAWFORD	2	0.2
90.0	DOUGLAS	2	0.2
90.0	GASCONADE	2	0.2
90.0	GRUNDY	2	0.2
90.0	HOWARD	2	0.2
90.0	LEWIS	2	0.2
90.0	MC DONALD	2	0.2
90.0	MONROE	2	0.2
90.0	RIPLEY	2	0.2
101.5	ATCHISON	1	0.1
101.5	CALDWELL	1	0.1
101.5	CARTER	1	0.1
101.5	DADE	1	0.1
101.5	HARRISON	1	0.1
101.5	HICKORY	1	0.1
101.5	MISSISSIPPI	1	0.1
101.5	OZARK	1	0.1
101.5	SCOTLAND	1	0.1
101.5	SHELBY	1	0.1
111.0	BOLLINGER	0	0.0
111.0	DAVIESS	0	0.0
111.0	IRON	0	0.0
111.0	KNOX	0	0.0
111.0	MADISON	0	0.0
111.0	MERCER	0	0.0
111.0	REYNOLDS	0	0.0
111.0	SHANNON	0	0.0
111.0	WORTH	0	0.0
			Fourth Quartile

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.

2011 SUMMARY ANALYSIS

- In 2011, there were 153 traffic crashes involving one or more fire vehicles in the State of Missouri. Zero people were killed and 57 were injured in these crashes.

- In 42.5% of the traffic crashes involving fire vehicles, the fire vehicle was on an emergency run at the time of the incident.

- In 2011, one person was killed or injured in a fire vehicle related crash every 6.4 days in the State of Missouri.

- Of all 2011 crashes involving fire vehicles, the first harmful event in 56.9% of the cases involved one motor vehicle in transport striking another motor vehicle in transport. In 16.3% of the cases, it involved a motor vehicle striking a parked vehicle. In 19.6% of the cases, the vehicle struck a fixed object.

- Of all 2011 crashes involving fire vehicles, 57.5% occurred in an urban area of the State and 42.5% occurred in a rural area.

- Of all fire vehicle drivers in 2011 traffic crashes, 96.8% were male and 3.2% were female. The average age of the fire vehicle driver was 40.2 years.

2011 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	0	0.0	23	69.7	42	35.0	65	42.5	0	49	0	8
FIRE VEHICLE NOT ON RUN	0	0.0	10	30.3	78	65.0	88	57.5	0	8	0	25
TOTAL	0	0.0	33	100.0	120	100.0	153	100.0	0	57	0	33

[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

2010 and 2011 FIRE VEHICLE INVOLVED CRASH ANALYSIS

	2010	2011	RATE OF CHANGE
FATAL	0	0	0.0
PERSONAL INJURY	23	33	+43.5
PROPERTY DAMAGE	144	120	-16.7
TOTAL	167	153	-8.4

TABLE 3.0.2

2011 FIRE VEHICLE INVOLVED CRASHES

CRASH TYPE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
ANIMAL	0	0.0	0	0.0	2	1.7	2	1.3
BICYCLIST	0	0.0	0	0.0	0	0.0	0	0.0
FIXED OBJECT	0	0.0	7	21.2	23	19.1	30	19.6
OTHER OBJECT	0	0.0	0	0.0	2	1.7	2	1.3
PEDESTRIAN	0	0.0	0	0.0	0	0.0	0	0.0
VEHICLE IN TRANSPORT	0	0.0	20	60.6	67	55.8	87	56.9
VEHICLE ON OTHER ROADWAY	0	0.0	0	0.0	0	0.0	0	0.0
PARKED VEHICLE	0	0.0	1	3.0	24	20.0	25	16.3
NON-COLLISION OVERTURN	0	0.0	4	12.2	2	1.7	6	3.9
NON-COLLISION OTHER	0	0.0	1	3.0	0	0.0	1	0.7
TOTAL	0	0.0	33	100.0	120	100.0	153	100.0

TABLE 3.0.3

2011 FIRE VEHICLE INVOLVED CRASHES

AREA CLASSIFICATION BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
URBAN	0	0.0	11	33.3	77	64.2	88	57.5
RURAL	0	0.0	22	66.7	43	35.8	65	42.5
TOTAL	0	0.0	33	100.0	120	100.0	153	100.0

TABLE 3.0.4

2011 FIRE VEHICLE INVOLVED CRASHES

ROAD CURVATURE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
STRAIGHT	0	0.0	25	75.8	103	86.6	128	84.2
CURVE	0	0.0	8	24.2	16	13.4	24	15.8
UNKNOWN	0	-	0	-	1	-	1	-
TOTAL	0	0.0	33	100.0	120	100.0	153	100.0

TABLE 3.0.5

2011 FIRE VEHICLE INVOLVED CRASHES

ROAD INCLINE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
LEVEL	0	0.0	20	60.6	74	62.7	94	62.3
HILL	0	0.0	12	36.4	44	37.3	56	37.1
CREST	0	0.0	1	3.0	0	0.0	1	0.6
UNKNOWN	0	-	0	-	2	-	2	-
TOTAL	0	0.0	33	100.0	120	100.0	153	100.0

TABLE 3.0.6

2011 FIRE VEHICLE INVOLVED CRASHES

ROAD CONDITIONS BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
DRY	0	0.0	24	72.7	83	69.2	107	69.9
WET	0	0.0	5	15.2	19	15.8	24	15.7
SNOW	0	0.0	1	3.0	15	12.5	16	10.5
ICE	0	0.0	3	9.1	3	2.5	6	3.9
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	-	0	-	0	-	0	-
TOTAL	0	0.0	33	100.0	120	100.0	153	100.0

TABLE 3.0.7

2011 FIRE VEHICLE INVOLVED CRASHES

HIGHWAY CLASSIFICATION BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
INTERSTATE	0	0.0	2	6.1	7	5.8	9	5.9
U.S. HIGHWAY	0	0.0	5	15.1	8	6.7	13	8.5
STATE NUMBERED	0	0.0	7	21.2	17	14.2	24	15.7
SINGLE STATE LETTERED	0	0.0	6	18.2	8	6.7	14	9.1
DOUBLE STATE LETTERED	0	0.0	2	6.1	4	3.3	6	4.0
OUTER ROAD	0	0.0	0	0.0	0	0.0	0	0.0
COUNTY ROAD	0	0.0	4	12.1	10	8.3	14	9.1
CITY STREET	0	0.0	6	18.2	65	54.2	71	46.4
OTHER[1]	0	0.0	1	3.0	1	0.8	2	1.3
TOTAL	0	0.0	33	100.0	120	100.0	153	100.0

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

TABLE 3.0.8

2011 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	1	9.1	6	7.8	7	8.0	0	0.0	1	4.6	1	2.3	2	3.1
U.S. HIGHWAY	0	0.0	3	27.3	3	3.9	6	6.8	0	0.0	2	9.1	5	11.7	7	10.8
STATE NUMBERED	0	0.0	2	18.2	8	10.4	10	11.4	0	0.0	5	22.7	9	20.9	14	21.5
SINGLE STATE LETTERED	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	6	27.3	8	18.6	14	21.5
DOUBLE STATE LETTERED	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	9.1	4	9.3	6	9.2
OUTER ROAD	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
COUNTY ROAD	0	0.0	0	0.0	1	1.3	1	1.1	0	0.0	4	18.2	9	20.9	13	20.0
CITY STREET	0	0.0	5	45.4	59	76.6	64	72.7	0	0.0	1	4.5	6	14.0	7	10.8
OTHER [1]	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	4.5	1	2.3	2	3.1
TOTAL	0	0.0	11	100.0	77	100.0	88	100.0	0	0.0	22	100.0	43	100.0	65	100.0

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

TABLE 3.0.9

2011 FIRE VEHICLE INVOLVED CRASHES

MONTH OF YEAR

MONTH	FREQUENCY	PERCENT
JANUARY	16	10.5
FEBRUARY	26	17.0
MARCH	12	7.8
APRIL	16	10.5
MAY	9	5.9
JUNE	16	10.5
JULY	8	5.2
AUGUST	10	6.5
SEPTEMBER	10	6.5
OCTOBER	9	5.9
NOVEMBER	12	7.8
DECEMBER	9	5.9
TOTAL	153	100.0

TABLE 3.0.10

2011 FIRE VEHICLE INVOLVED CRASHES

DAY OF WEEK

DAY	FREQUENCY	PERCENT
SUNDAY	11	7.2
MONDAY	25	16.3
TUESDAY	25	16.3
WEDNESDAY	22	14.4
THURSDAY	26	17.0
FRIDAY	21	13.7
SATURDAY	23	15.0
TOTAL	153	100.0

TABLE 3.0.11

2011 FIRE VEHICLE INVOLVED CRASHES

HOUR OF DAY

HOUR	FREQUENCY	PERCENT
12:01A - 12:59A	3	2.0
01:00A - 01:59A	3	2.0
02:00A - 02:59A	0	0.0
03:00A - 03:59A	2	1.3
04:00A - 04:59A	2	1.3
05:00A - 05:59A	3	2.0
06:00A - 06:59A	5	3.3
07:00A - 07:59A	6	4.0
08:00A - 08:59A	16	10.5
09:00A - 09:59A	9	5.9
10:00A - 10:59A	8	5.2
11:00A - 11:59A	9	5.9
NOON - 12:59P	14	9.2
01:00P - 01:59P	11	7.2
02:00P - 02:59P	14	9.2
03:00P - 03:59P	15	9.9
04:00P - 04:59P	10	6.6
05:00P - 05:59P	6	3.9
06:00P - 06:59P	5	3.3
07:00P - 07:59P	2	1.3
08:00P - 08:59P	5	3.3
09:00P - 09:59P	3	2.0
10:00P - 10:59P	0	0.0
11:00P - MIDNIGHT	1	0.7
UNKNOWN	1	--
TOTAL	153	100.0

TABLE 3.0.12

2011 MISSOURI FIRE VEHICLE CRASHES

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

	FATAL AND PERSONAL INJURY FIRE VEHICLE CRASHES = 33			TOTAL FIRE VEHICLE CRASHES = 153		
	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	0.0	0.0	0.0	1.3	0.7	2.0
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	24.2	9.1	30.3	13.1	6.5	19.0
IMPROPER PASSING	0.0	0.0	0.0	1.3	0.0	1.3
VIOLATION OF STOP SIGN	0.0	3.0	3.0	0.0	0.7	0.7
WRONG SIDE NOT PASSING	3.0	3.0	3.0	0.7	2.0	2.0
FOLLOWING TOO CLOSE	0.0	3.0	3.0	0.7	3.3	3.9
IMPROPER SIGNAL	0.0	0.0	0.0	0.0	0.0	0.0
IMPROPER BACKING	0.0	0.0	0.0	2.6	0.7	3.3
IMPROPER TURN	0.0	0.0	0.0	7.8	0.0	7.8
IMPROPER LANE USAGE / CHANGE	3.0	0.0	3.0	4.6	2.6	7.2
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	0.0	2.6	2.6
FAILED TO YIELD	12.1	27.3	36.4	2.6	16.3	18.3
DRINKING	0.0	0.0	0.0	0.0	0.7	0.7
DRUGS	0.0	0.0	0.0	0.0	0.0	0.0
PHYSICAL IMPAIRMENT	3.0	0.0	3.0	2.0	0.0	2.0
INATTENTION	15.2	9.1	21.2	15.7	7.2	21.6

[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 2011 Missouri fire vehicle crashes, it was found that a fire vehicle driver was speeding in 24.2% of the crashes. In 9.1% of the crashes another driver was speeding. In 30.3% of the crashes either a fire vehicle driver, another driver, or both drivers were speeding.

TABLE 3.0.13

FIRE VEHICLES INVOLVED IN 2011 MISSOURI CRASHES

TYPE OF VEHICLE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
AUTOMOBILE	0	0.0	1	2.8	4	3.4	5	3.2
SPORT UTILITY VEHICLE	0	0.0	7	19.4	7	5.9	14	9.0
VAN	0	0.0	1	2.8	0	0.0	1	0.7
MOTORCYCLE	0	0.0	0	0.0	0	0.0	0	0.0
ALL TERRAIN VEHICLE	0	0.0	0	0.0	0	0.0	0	0.0
OTHER TRANSPORT DEVICE	0	0.0	1	2.8	11	9.2	12	7.7
PICK-UP TRUCK	0	0.0	2	5.6	10	8.4	12	7.7
OTHER TRUCK	0	0.0	24	66.7	87	73.1	111	71.6
UNKNOWN	0	-	1	-	1	-	2	-
TOTAL	0	0.0	37	100.0	120	100.0	157	100.0

TABLE 3.0.14

FIRE VEHICLES INVOLVED IN 2011 MISSOURI CRASHES

DRIVER INVOLVEMENT BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
KNOWN DRIVER INVOLVED	0	0.0	37	100.0	118	98.3	155	98.7
UNKNOWN DRIVER INVOLVED	0	0.0	0	0.0	2	1.7	2	1.3
TOTAL	0	0.0	37	100.0	120	100.0	157	100.0

TABLE 3.0.15

DRIVERS OF FIRE VEHICLES INVOLVED IN 2011 MISSOURI CRASHES

SEX OF DRIVER BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
MALE	0	0.0	35	94.6	115	97.5	150	96.8
FEMALE	0	0.0	2	5.4	3	2.5	5	3.2
UNKNOWN	0	-	0	-	2	-	2	-
TOTAL	0	0.0	37	100.0	120	100.0	157	100.0

TABLE 3.0.16

DRIVERS OF FIRE VEHICLES INVOLVED IN 2011 MISSOURI CRASHES

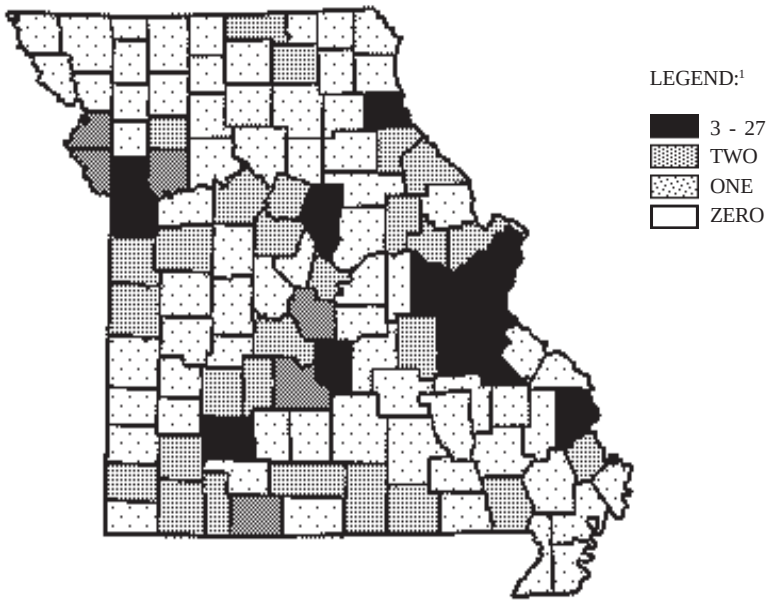
AGE OF DRIVER BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
AVERAGE AGE OF DRIVER	-	-	44.8	-	38.8	-	40.2	-
15 - 20 YEARS	0	0.0	0	0.0	3	2.6	3	2.0
21 - 25 YEARS	0	0.0	3	8.3	15	12.9	18	11.8
26 - 30 YEARS	0	0.0	3	8.3	12	10.3	15	9.9
31 - 35 YEARS	0	0.0	4	11.1	18	15.5	22	14.5
36 - 40 YEARS	0	0.0	5	13.9	18	15.5	23	15.1
41 - 45 YEARS	0	0.0	4	11.1	16	13.8	20	13.2
46 - 50 YEARS	0	0.0	4	11.1	18	15.5	22	14.5
51 - 55 YEARS	0	0.0	5	13.9	7	6.0	12	7.9
56 - 60 YEARS	0	0.0	4	11.1	5	4.3	9	5.9
61 - 65 YEARS	0	0.0	1	2.8	2	1.7	3	2.0
66 YEARS AND OVER	0	0.0	3	8.3	2	1.7	5	3.3
UNKNOWN	0	-	1	-	4	-	5	-
TOTAL	0	0.0	37	100.0	120	100.0	157	100.0

TABLE 3.0.17

2011 FIRE VEHICLE INVOLVED CRASHES

COUNTY QUARTILE ANALYSIS



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

RANK	COUNTY	FREQUENCY	PERCENT
1.5	JACKSON	27	17.6
1.5	ST LOUIS CITY	27	17.6
3.0	ST LOUIS	15	9.8
4.0	GREENE	8	5.2
6.5	BOONE	5	3.3
6.5	CLAY	5	3.3
6.5	JEFFERSON	5	3.3
6.5	PULASKI	5	3.3
9.0	MARION	4	2.6
11.5	CAPE GIRARDEAU	3	2.0
11.5	FRANKLIN	3	2.0
11.5	ST FRANCOIS	3	2.0
11.5	WASHINGTON	3	2.0
			First Quartile
16.5	BUCHANAN	2	1.3
16.5	LACLEDE	2	1.3
16.5	MILLER	2	1.3
16.5	PLATTE	2	1.3
16.5	RAY	2	1.3
16.5	TANEY	2	1.3
			Second Quartile
33.5	ADAIR	1	0.7
33.5	BARRY	1	0.7
33.5	BATES	1	0.7
33.5	BUTLER	1	0.7
33.5	CALDWELL	1	0.7
33.5	CAMDEN	1	0.7
33.5	CASS	1	0.7
33.5	COLE	1	0.7
33.5	COOPER	1	0.7
33.5	CRAWFORD	1	0.7
33.5	DALLAS	1	0.7
33.5	DOUGLAS	1	0.7
33.5	HOWARD	1	0.7
33.5	HOWELL	1	0.7
33.5	JOHNSON	1	0.7
			Third Quartile

RANK	COUNTY	FREQUENCY	PERCENT
33.5	LAWRENCE	1	0.7
33.5	MONTGOMERY	1	0.7
33.5	NEWTON	1	0.7
33.5	OREGON	1	0.7
33.5	PIKE	1	0.7
33.5	POLK	1	0.7
33.5	PUTNAM	1	0.7
33.5	RALLS	1	0.7
33.5	ST CHARLES	1	0.7
33.5	SALINE	1	0.7
33.5	SCOTT	1	0.7
33.5	STONE	1	0.7
33.5	WARREN	1	0.7
			Third Quartile
			Fourth Quartile
81.5	ANDREW	0	0.0
81.5	ATCHISON	0	0.0
81.5	AUDRAIN	0	0.0
81.5	BARTON	0	0.0
81.5	BENTON	0	0.0
81.5	BOLLINGER	0	0.0
81.5	CALLAWAY	0	0.0
81.5	CARROLL	0	0.0
81.5	CARTER	0	0.0
81.5	CEDAR	0	0.0
81.5	CHARITON	0	0.0
81.5	CHRISTIAN	0	0.0
81.5	CLARK	0	0.0
81.5	CLINTON	0	0.0
81.5	DADE	0	0.0
81.5	DAVIESS	0	0.0
81.5	DE KALB	0	0.0
81.5	DENT	0	0.0
81.5	DUNKLIN	0	0.0
81.5	GASCONADE	0	0.0
81.5	GENTRY	0	0.0
81.5	GRUNDY	0	0.0
81.5	HARRISON	0	0.0
81.5	HENRY	0	0.0
81.5	HICKORY	0	0.0
81.5	HOLT	0	0.0
81.5	IRON	0	0.0
81.5	JASPER	0	0.0
81.5	KNOX	0	0.0
81.5	LAFAYETTE	0	0.0
81.5	LEWIS	0	0.0
81.5	LINCOLN	0	0.0
81.5	LINN	0	0.0
81.5	LIVINGSTON	0	0.0
81.5	MC DONALD	0	0.0
81.5	MACON	0	0.0
81.5	MADISON	0	0.0
81.5	MARIES	0	0.0
81.5	MERCER	0	0.0
81.5	MISSISSIPPI	0	0.0
81.5	MONITEAU	0	0.0
81.5	MONROE	0	0.0
81.5	MORGAN	0	0.0
81.5	NEW MADRID	0	0.0
81.5	NODAWAY	0	0.0
81.5	OSAGE	0	0.0
81.5	OZARK	0	0.0
81.5	PEMISCOT	0	0.0
81.5	PERRY	0	0.0
81.5	PETTIS	0	0.0
81.5	PHELPS	0	0.0
81.5	RANDOLPH	0	0.0
81.5	REYNOLDS	0	0.0
81.5	RIPLEY	0	0.0
81.5	ST CLAIR	0	0.0
81.5	STE GENEVIEVE	0	0.0
81.5	SCHUYLER	0	0.0
81.5	SCOTLAND	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.

2011 SUMMARY ANALYSIS

- In 2011, there were 149 traffic crashes involving one or more ambulances in the State of Missouri. Two people were killed and 33 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.

- Of all 2011 crashes involving ambulances, the first harmful event in 63.1% of the cases involved one motor vehicle in transport striking another motor vehicle in transport. In 10.1% of the cases a motor vehicle struck an animal, and in 7.4% of the cases, a motor vehicle struck a fixed object.

- Of all 2011 crashes involving ambulances, 66.4% occurred in an urban area of the State and 33.6% occurred in a rural area.

- Of all ambulance drivers involved in 2011 traffic crashes, 73.3% were male and 26.7% were female. The average age of the ambulance driver was 34.7 years.

2011 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	5	26.3	43	33.6	49	32.9	1	11	0	16
AMBULANCE NOT ON RUN	1	50.0	14	73.7	85	66.4	100	67.1	1	22	1	8
TOTAL	2	100.0	19	100.0	128	100.0	149	100.0	2	33	1	24

[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

2010 and 2011 AMBULANCE INVOLVED CRASH ANALYSIS

	2010	2011	RATE OF CHANGE
FATAL	0	2	+200.0
PERSONAL INJURY	47	19	-59.6
PROPERTY DAMAGE	126	128	+1.6
TOTAL	173	149	-13.9

TABLE 4.0.2

2011 AMBULANCE INVOLVED CRASHES

CRASH TYPE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
ANIMAL	0	0.0	0	0.0	15	11.7	15	10.1
BICYCLIST	0	0.0	1	5.3	0	0.0	1	0.7
FIXED OBJECT	0	0.0	1	5.3	10	7.8	11	7.4
OTHER OBJECT	0	0.0	0	0.0	1	0.8	1	0.7
PEDESTRIAN	0	0.0	0	0.0	0	0.0	0	0.0
VEHICLE IN TRANSPORT	2	100.0	15	79.0	77	60.2	94	63.1
PARKED VEHICLE	0	0.0	0	0.0	24	18.8	24	16.1
NON - COLLISION OVERTURN	0	0.0	1	5.3	0	0.0	1	0.7
NON-COLLISION OTHER	0	0.0	1	5.3	1	0.8	2	1.3
TOTAL	2	100.0	19	100.0	128	100.0	149	100.0

TABLE 4.0.3

2011 AMBULANCE INVOLVED CRASHES

AREA CLASSIFICATION BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
URBAN	0	0.0	13	68.4	86	67.2	99	66.4
RURAL	2	100.0	6	31.6	42	32.8	50	33.6
TOTAL	2	100.0	19	100.0	128	100.0	149	100.0

TABLE 4.0.4

2011 AMBULANCE INVOLVED CRASHES

ROAD CURVATURE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
STRAIGHT	1	50.0	17	89.5	118	92.2	136	91.3
CURVE	1	50.0	2	10.5	10	7.8	13	8.7
UNKNOWN	0	-	0	-	0	-	0	-
TOTAL	2	100.0	19	100.0	128	100.0	149	100.0

TABLE 4.0.5

2011 AMBULANCE INVOLVED CRASHES

ROAD INCLINE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
LEVEL	0	0.0	11	57.9	102	79.7	113	75.8
HILL	2	100.0	6	31.6	24	18.7	32	21.5
CREST	0	0.0	2	10.5	2	1.6	4	2.7
UNKNOWN	0	-	0	-	0	-	0	-
TOTAL	0	0.0	19	100.0	128	100.0	149	100.0

TABLE 4.0.6

2011 AMBULANCE INVOLVED CRASHES

ROAD CONDITIONS BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
DRY	1	50.0	11	57.9	97	75.8	109	73.2
WET	1	50.0	5	26.3	19	14.8	25	16.8
SNOW	0	0.0	2	10.5	9	7.0	11	7.4
ICE	0	0.0	0	0.0	2	1.6	2	1.3
MUD	0	0.0	0	0.0	1	0.8	1	0.7
STANDING WATER	0	0.0	1	5.3	0	0.0	1	0.7
SLUSH	0	0.0	0	0.0	0	0.0	0	0.0
UNKNOWN	0	--	0	--	0	--	0	--
TOTAL	2	100.0	19	100.0	128	100.0	149	100.0

TABLE 4.0.7

2011 AMBULANCE INVOLVED CRASHES

HIGHWAY CLASSIFICATION BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
INTERSTATE	0	0.0	3	15.8	12	9.4	15	10.1
U.S. HIGHWAY	1	50.0	1	5.3	16	12.5	18	12.1
STATE NUMBERED	1	50.0	4	21.0	15	11.7	20	13.4
SINGLE STATE LETTERED	0	0.0	1	5.3	7	5.5	8	5.4
DOUBLE STATE LETTERED	0	0.0	0	0.0	2	1.6	2	1.3
OUTER ROAD	0	0.0	1	5.3	0	0.0	1	0.7
COUNTY ROAD	0	0.0	0	0.0	4	3.1	4	2.7
CITY STREET	0	0.0	8	42.1	65	50.8	73	49.0
INTERSTATE LOOP	0	0.0	0	0.0	1	0.8	1	0.7
OTHER[1]	0	0.0	1	5.3	6	4.7	7	4.7
TOTAL	2	100.0	19	100.0	128	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

2011 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	23.1	7	8.1	10	10.1	0	0.0	0	0.0	5	11.9	5	10.0
U.S. HIGHWAY	0	0.0	0	0.0	6	7.0	6	6.1	1	50.0	1	16.7	10	23.8	12	24.0
STATE NUMBERED	0	0.0	1	7.7	3	3.5	4	4.0	1	50.0	3	50.0	12	28.6	16	32.0
SINGLE STATE LETTERED	0	0.0	1	7.7	1	1.2	2	2.0	0	0.0	0	0.0	6	14.3	6	12.0
DOUBLE STATE LETTERED	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	4.8	2	4.0
OUTER ROAD	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	16.7	0	0.0	1	2.0
COUNTY ROAD	0	0.0	0	0.0	1	1.2	1	1.0	0	0.0	0	0.0	3	7.1	3	6.0
CITY STREET	0	0.0	8	61.5	63	73.3	71	71.7	0	0.0	0	0.0	2	4.8	2	4.0
INTERSTATE LOOP	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	2.4	1	2.0
OTHER [1]	0	0.0	0	0.0	5	5.8	5	5.1	0	0.0	1	16.7	1	2.4	2	4.0
TOTAL	0	0.0	13	100.0	86	100.0	99	100.0	2	100.0	6	100.0	42	100.0	50	100.0

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

TABLE 4.0.9

2011 AMBULANCE INVOLVED CRASHES

MONTH OF YEAR

MONTH	FREQUENCY	PERCENT
JANUARY	17	11.4
FEBRUARY	16	10.7
MARCH	12	8.1
APRIL	12	8.1
MAY	10	6.7
JUNE	12	8.1
JULY	11	7.4
AUGUST	15	10.0
SEPTEMBER	7	4.7
OCTOBER	13	8.7
NOVEMBER	14	9.4
DECEMBER	10	6.7
TOTAL	149	100.0

TABLE 4.0.10

2011 AMBULANCE INVOLVED CRASHES

DAY OF WEEK

DAY	FREQUENCY	PERCENT
SUNDAY	13	8.7
MONDAY	23	15.4
TUESDAY	19	12.8
WEDNESDAY	24	16.1
THURSDAY	23	15.4
FRIDAY	26	17.5
SATURDAY	21	14.1
TOTAL	149	100.0

TABLE 4.0.11

2011 AMBULANCE INVOLVED CRASHES

HOUR OF DAY

HOUR	FREQUENCY	PERCENT
12:01A - 12:59A	4	2.7
01:00A - 01:59A	6	4.0
02:00A - 02:59A	4	2.7
03:00A - 03:59A	3	2.0
04:00A - 04:59A	0	0.0
05:00A - 05:59A	4	2.7
06:00A - 06:59A	5	3.3
07:00A - 07:59A	5	3.3
08:00A - 08:59A	2	1.3
09:00A - 09:59A	8	5.4
10:00A - 10:59A	7	4.7
11:00A - 11:59A	8	5.4
NOON - 12:59P	13	8.7
01:00P - 01:59P	10	6.7
02:00P - 02:59P	11	7.4
03:00P - 03:59P	8	5.4
04:00P - 04:59P	11	7.4
05:00P - 05:59P	11	7.4
06:00P - 06:59P	1	0.7
07:00P - 07:59P	7	4.7
08:00P - 08:59P	8	5.4
09:00P - 09:59P	2	1.3
10:00P - 10:59P	4	2.7
11:00P - MIDNIGHT	7	4.7
UNKNOWN	0	--
TOTAL	149	100.0

TABLE 4.0.12

2011 MISSOURI AMBULANCE CRASHES

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

	FATAL AND PERSONAL INJURY AMBULANCE CRASHES = 21			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	1.3	1.3	2.7
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	14.3	19.0	28.6	5.4	4.7	9.4
IMPROPER PASSING	0.0	4.8	4.8	0.7	2.7	3.4
VIOLATION OF STOP SIGN	4.8	4.8	9.5	0.7	1.3	2.0
WRONG SIDE NOT PASSING	0.0	4.8	4.8	0.7	0.7	1.3
FOLLOWING TOO CLOSE	4.8	0.0	4.8	2.0	2.7	4.7
IMPROPER SIGNAL	0.0	0.0	0.0	0.0	0.0	0.0
IMPROPER BACKING	0.0	0.0	0.0	2.7	1.3	4.0
IMPROPER TURN	0.0	0.0	0.0	0.7	1.3	2.0
IMPROPER LANE USAGE / CHANGE	0.0	9.5	9.5	4.7	8.1	11.4
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	0.0	5.4	5.4
FAILED TO YIELD	0.0	14.3	14.3	2.7	10.1	12.8
DRINKING	0.0	14.3	14.3	0.0	2.0	2.0
DRUGS	0.0	0.0	0.0	0.0	0.7	0.7
PHYSICAL IMPAIRMENT	0.0	0.0	0.0	0.0	0.7	0.7
INATTENTION	9.5	28.6	38.1	14.1	13.4	27.5

[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 2011 Missouri ambulance crashes, it was found that an ambulance driver was speeding in 14.3% of the crashes. In 19.0% of the crashes another driver was speeding. In 28.6% of the crashes either an ambulance driver, another driver, or both drivers were speeding.

TABLE 4.0.13

AMBULANCE VEHICLES INVOLVED IN 2011 MISSOURI CRASHES

TYPE OF VEHICLE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
AUTOMOBILE	0	0.0	1	5.0	4	3.2	5	3.4
SPORT UTILITY VEHICLE	0	0.0	2	10.0	4	3.2	6	4.0
VAN	0	0.0	3	15.0	36	28.4	39	26.2
MOTORCYCLE	0	0.0	1	5.0	0	0.0	1	0.7
BUS	0	0.0	1	5.0	0	0.0	1	0.7
MOPED	0	0.0	0	0.0	0	0.0	0	0.0
ATV	0	0.0	0	0.0	0	0.0	0	0.0
BICYCLE	0	0.0	0	0.0	0	0.0	0	0.0
OTHER TRANSPORT DEVICE	0	0.0	4	20.0	20	15.8	24	16.1
PICK-UP TRUCK	0	0.0	0	0.0	1	0.8	1	0.7
OTHER TRUCK	2	100.0	8	40.0	62	48.8	72	48.3
UNKNOWN	0	-	0	-	2	-	2	-
TOTAL	2	100.0	20	100.0	129	100.0	149	100.0

TABLE 4.0.14

AMBULANCES INVOLVED IN 2011 MISSOURI CRASHES

DRIVER INVOLVEMENT BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
KNOWN DRIVER INVOLVED	2	100.0	20	100.0	128	99.2	150	99.3
UNKNOWN DRIVER INVOLVED	0	0.0	0	0.0	1	0.8	1	0.7
TOTAL	2	100.0	20	100.0	129	100.0	151	100.0

TABLE 4.0.15

DRIVERS OF AMBULANCES INVOLVED IN 2011 MISSOURI CRASHES

SEX OF DRIVER BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
MALE	2	100.0	16	80.0	92	71.9	110	73.3
FEMALE	0	0.0	4	20.0	36	28.1	40	26.7
UNKNOWN	0	-	0	-	1	-	1	-
TOTAL	2	100.0	20	100.0	128	100.0	150	100.0

TABLE 4.0.16

DRIVERS OF AMBULANCES INVOLVED IN 2011 MISSOURI CRASHES

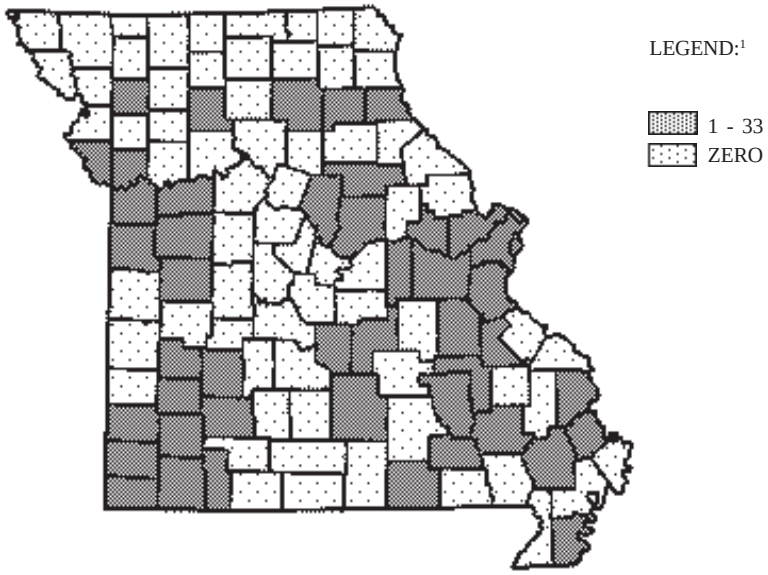
AGE OF DRIVER BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
AVERAGE AGE OF DRIVER	46.0	-	39.9	-	33.7	-	34.7	-
14 YEARS AND UNDER	0	0.0	0	0.0	0	0.0	0	0.0
15 - 20 YEARS	0	0.0	1	5.0	2	1.6	3	2.0
21 - 25 YEARS	0	0.0	3	15.0	26	20.3	29	19.3
26 - 30 YEARS	0	0.0	1	5.0	28	21.9	29	19.3
31 - 35 YEARS	0	0.0	3	15.0	23	18.0	26	17.3
36 - 40 YEARS	0	0.0	3	15.0	19	14.8	22	14.7
41 - 45 YEARS	1	50.0	3	15.0	15	11.7	19	12.7
46 - 50 YEARS	1	50.0	2	10.0	8	6.3	11	7.3
51 - 55 YEARS	0	0.0	2	10.0	5	3.9	7	4.7
56 - 60 YEARS	0	0.0	1	5.0	2	1.6	3	2.0
61 - 65 YEARS	0	0.0	0	0.0	0	0.0	0	0.0
66 YEARS AND OVER	0	0.0	1	5.0	0	0.0	1	0.7
UNKNOWN	0	-	0	-	1	-	1	-
TOTAL	2	100.0	20	100.0	128	100.0	150	100.0

TABLE 4.0.17

2011 AMBULANCE INVOLVED CRASHES

COUNTY QUARTILE ANALYSIS



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

RANK	COUNTY	FREQUENCY	PERCENT
1.0	ST LOUIS CITY	33	22.1
2.0	ST LOUIS	19	12.8
3.0	JACKSON	16	10.7
4.0	ST CHARLES	7	4.7
6.0	GREENE	5	3.4
6.0	JEFFERSON	5	3.4
6.0	WAYNE	5	3.4
8.5	CAPE GIRARDEAU	4	2.7
8.5	JOHNSON	4	2.7
10.5	BOONE	3	2.0
10.5	JASPER	3	2.0
16.5	AUDRAIN	2	1.3
16.5	BARRY	2	1.3
16.5	CALLAWAY	2	1.3
16.5	CLAY	2	1.3
16.5	LIVINGSTON	2	1.3
16.5	MC DONALD	2	1.3
16.5	PHELPS	2	1.3
16.5	POLK	2	1.3
16.5	SCOTT	2	1.3
16.5	WARREN	2	1.3
34.0	CARTER	1	0.7
34.0	CASS	1	0.7
34.0	CEDAR	1	0.7
34.0	DADE	1	0.7
34.0	DE KALB	1	0.7
34.0	FRANKLIN	1	0.7
34.0	GASCONADE	1	0.7
34.0	HENRY	1	0.7
34.0	IRON	1	0.7
34.0	LAFAYETTE	1	0.7
34.0	LAWRENCE	1	0.7
34.0	MACON	1	0.7
34.0	MARION	1	0.7
34.0	NEWTON	1	0.7
34.0	OREGON	1	0.7

RANK	COUNTY	FREQUENCY	PERCENT
34.0	PEMISCOT	1	0.7
34.0	PLATTE	1	0.7
34.0	PULASKI	1	0.7
34.0	REYNOLDS	1	0.7
34.0	ST FRANCOIS	1	0.7
34.0	SHELBY	1	0.7
34.0	STODDARD	1	0.7
34.0	STONE	1	0.7
34.0	TEXAS	1	0.7
34.0	WASHINGTON	1	0.7
			First Quartile
			Second Quartile
81.0	ADAIR	0	0.0
81.0	ANDREW	0	0.0
81.0	ATCHISON	0	0.0
81.0	BARTON	0	0.0
81.0	BATES	0	0.0
81.0	BENTON	0	0.0
81.0	BOLLINGER	0	0.0
81.0	BUCHANAN	0	0.0
81.0	BUTLER	0	0.0
81.0	CALDWELL	0	0.0
81.0	CAMDEN	0	0.0
81.0	CARROLL	0	0.0
81.0	CHARITON	0	0.0
81.0	CHRISTIAN	0	0.0
81.0	CLARK	0	0.0
81.0	CLINTON	0	0.0
81.0	COLE	0	0.0
81.0	COOPER	0	0.0
81.0	CRAWFORD	0	0.0
81.0	DALLAS	0	0.0
81.0	DAVIESS	0	0.0
81.0	DENT	0	0.0
81.0	DOUGLAS	0	0.0
81.0	DUNKLIN	0	0.0
81.0	GENTRY	0	0.0
81.0	GRUNDY	0	0.0
81.0	HARRISON	0	0.0
81.0	HICKORY	0	0.0
81.0	HOLT	0	0.0
81.0	HOWARD	0	0.0
81.0	HOWELL	0	0.0
81.0	KNOX	0	0.0
81.0	LACLEDE	0	0.0
81.0	LEWIS	0	0.0
81.0	LINCOLN	0	0.0
81.0	LINN	0	0.0
81.0	MADISON	0	0.0
81.0	MARIES	0	0.0
81.0	MERCER	0	0.0
81.0	MILLER	0	0.0
81.0	MISSISSIPPI	0	0.0
81.0	MONITEAU	0	0.0
81.0	MONROE	0	0.0
81.0	MONTGOMERY	0	0.0
81.0	MORGAN	0	0.0
81.0	NEW MADRID	0	0.0
81.0	NODAWAY	0	0.0
81.0	OSAGE	0	0.0
81.0	OZARK	0	0.0
81.0	PERRY	0	0.0
81.0	PETTIS	0	0.0
81.0	PIKE	0	0.0
81.0	PUTNAM	0	0.0
81.0	RALLS	0	0.0
81.0	RANDOLPH	0	0.0
81.0	RAY	0	0.0
81.0	RIPLEY	0	0.0
81.0	ST CLAIR	0	0.0
81.0	STE GENEVIEVE	0	0.0
81.0	SALINE	0	0.0
81.0	SCHUYLER	0	0.0
81.0	SCOTLAND	0	0.0
81.0	SHANNON	0	0.0
81.0	SULLIVAN	0	0.0
81.0	TANEY	0	0.0
81.0	VERNON	0	0.0
81.0	WEBSTER	0	0.0
81.0	WORTH	0	0.0
81.0	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:

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

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.