

*2006*  
*MISSOURI*  
*EMERGENCY SERVICE VEHICLE*  
*CRASHES*

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## **FOREWORD**

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

For this reason, the 2006 Missouri Emergency Vehicle Crashes report was produced by the Statistical Analysis Center of the Missouri State Highway Patrol at the request of the Highway Safety Division.

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

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

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

Leanna Depue, Highway Safety Director  
MoDOT Highway Safety Division

## ACKNOWLEDGEMENTS

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

The primary source of information in this report was traffic crash data obtained from the State-wide Traffic Accident Records System (STARS). The Missouri State Highway Patrol, Traffic 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, 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 2006, Missouri experienced 1,313 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 2006, there were 1,377 traffic crashes involving 1,426 emergency service vehicles in the State of Missouri. Five persons were killed and 358 persons were injured in these traffic crashes. Of the 1,426 emergency service vehicles involved, 402 (28.2%) 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 1,426 emergency vehicles involved in 2006 traffic crashes, 1,070 (75.0%) 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 1,426 emergency vehicles involved in 2006 Missouri traffic crashes, 181 (12.7%) 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 402 vehicles making an emergency run when involved in a traffic crash in 2006, 78 (19.4%) were vehicles of this type.

Of the 1,426 emergency service vehicles involved in 2006 Missouri traffic crashes, 143 (10.0%) were ambulances. Ambulances also made up a higher proportion of emergency service vehicles involved in traffic crashes while making emergency runs. Of the 402 emergency service vehicles involved in 2006 Missouri traffic crashes while on emergency runs, 41 (10.2%) 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 2004 - 2006 with emphasis on the most recent year (2006).

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 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 2006 there were 1,377 traffic crashes involving 1,426 emergency service vehicles in the State of Missouri. Five persons were killed and 358 persons were injured in these traffic crashes. One person was killed or injured every 1.0 days in these types of crashes in 2006.
- Police vehicles comprise the largest number of emergency service vehicles involved in Missouri's traffic crashes. Of the 1,426 emergency service vehicles involved, 1,070 (75.0%) were police vehicles. They were involved in 1,045 traffic crashes. A total of 402 emergency service vehicles were on emergency runs when the traffic crash occurred. Of these, 251 (62.4%) 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 2006. Of the 1,426 emergency vehicles involved in 2006 Missouri traffic crashes, 181 (12.7%) were fire vehicles. They were involved in 174 traffic crashes. Of the 402 emergency vehicles on emergency run at the time of the traffic crash, 78 (19.4%) were fire vehicles.
- Ambulances were the third most frequent emergency vehicle type involved in Missouri's 2006 traffic crashes. Of the 1,426 emergency vehicles involved, 143 (10.0%) were ambulances. They were involved in 137 traffic crashes. Like fire vehicles, ambulances were more likely to be involved in a traffic crash when on an emergency run. Of the 402 emergency vehicles on emergency run when the traffic crash occurred, 10.2% were ambulances.
- Emergency vehicles classified as 'Other' made up a small proportion of those involved in Missouri's 2006 traffic crashes. Of the 1,426 emergency vehicles involved, only 32 (2.2%) were emergency vehicles classified as 'Other'.

**2006 MISSOURI TRAFFIC CRASHES**

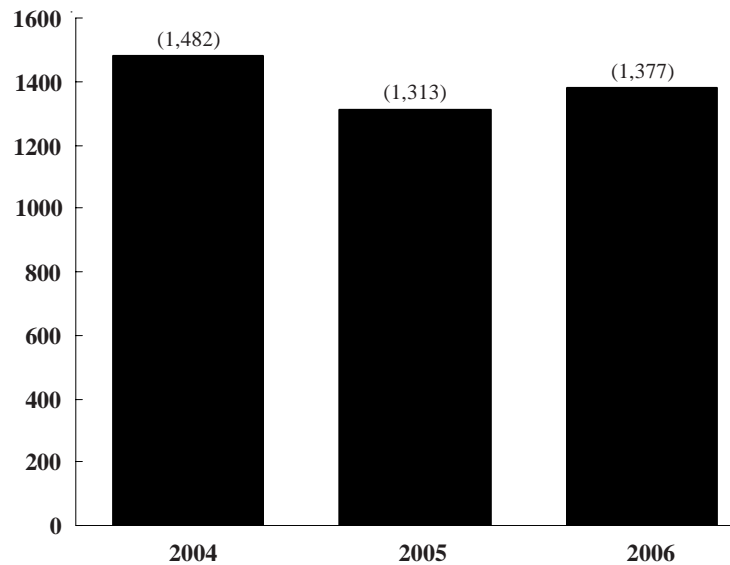
**EMERGENCY SERVICE (ES) VEHICLE INVOLVEMENT**

	<b>FATAL</b>	<b>%</b>	<b>PERSONAL INJURY</b>	<b>%</b>	<b>PROPERTY DAMAGE</b>	<b>%</b>	<b>TOTAL</b>	<b>%</b>
ES VEHICLE INVOLVED	5	0.5	227	0.5	1,145	0.9	1,377	0.8
NO ES VEHICLE INVOLVED	966	99.5	41,911	99.5	122,889	99.1	165,766	99.2
<b>TOTAL</b>	971	100.0	42,138	100.0	124,034	100.0	167,143	100.0

**TABLE 1.0.1**

**MISSOURI EMERGENCY SERVICE VEHICLE INVOLVED CRASHES**

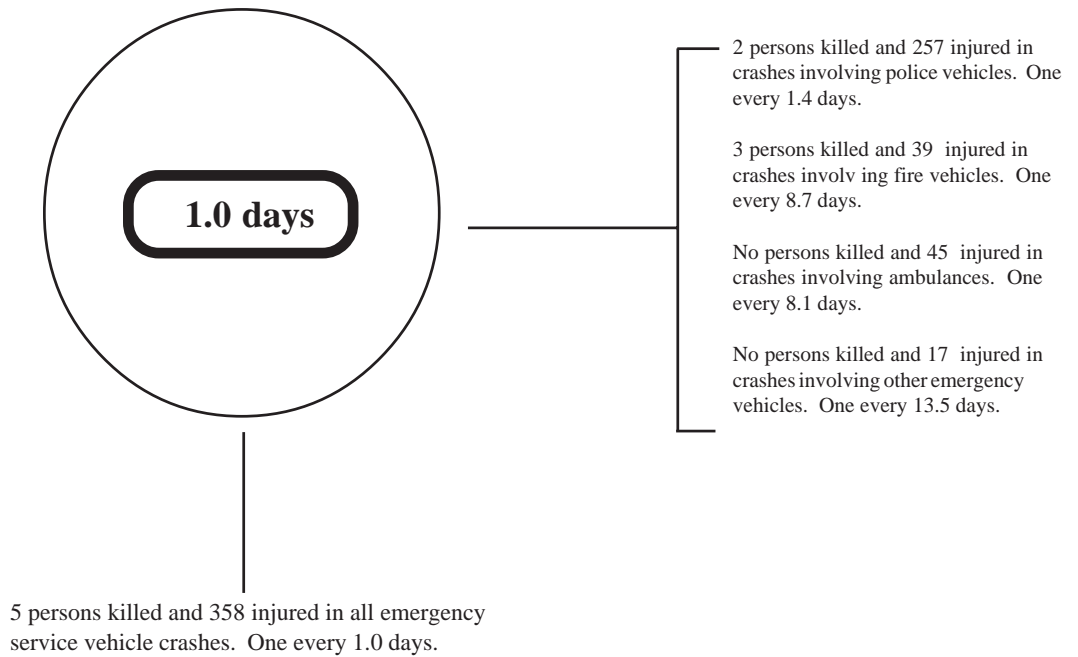
**2004 - 2006**



**FIGURE 1.0.1**

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

**2006**



**FIGURE 1.0.2**

**2006 MISSOURI EMERGENCY SERVICE (ES) VEHICLE CRASHES**

**TYPE OF EMERGENCY SERVICE VEHICLE INVOLVED**

	<b>FATAL</b>	<b>PERSONAL INJURY</b>	<b>PROPERTY DAMAGE</b>	<b>TOTAL</b>	<b>NUMBER OF ES VEHICLES INVOLVED<sup>1</sup></b>
<b>TOTAL NUMBER OF ES VEHICLE CRASHES</b>	<b>5</b>	<b>227</b>	<b>1,145</b>	<b>1,377</b>	<b>1,426</b>
<b>INVOLVING</b>					
POLICE VEHICLE	2	173	870	1,045	1,070
FIRE VEHICLE	3	17	154	174	181
AMBULANCE	0	27	110	137	143
OTHER ES VEHICLE	0	12	19	31	32

<sup>1</sup>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 1,483 traffic crashes involving 1,426 emergency service vehicles

**TABLE 1.0.2**

**TYPE OF EMERGENCY SERVICE VEHICLES INVOLVED IN  
2006 MISSOURI TRAFFIC CRASHES**

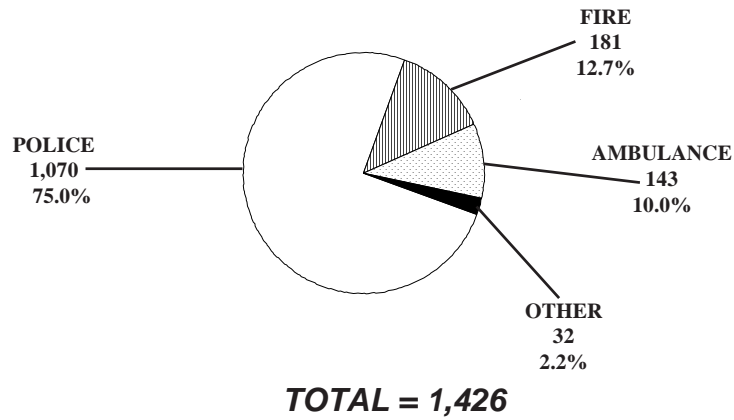
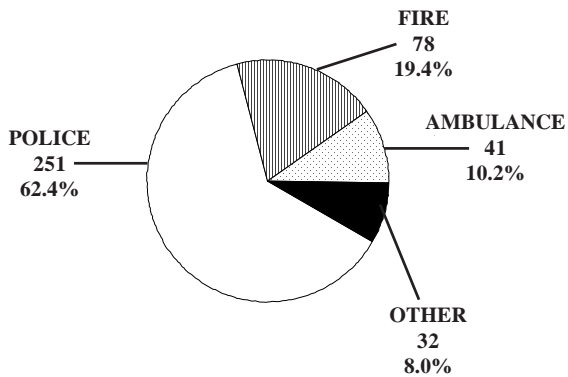


FIGURE 1.0.3

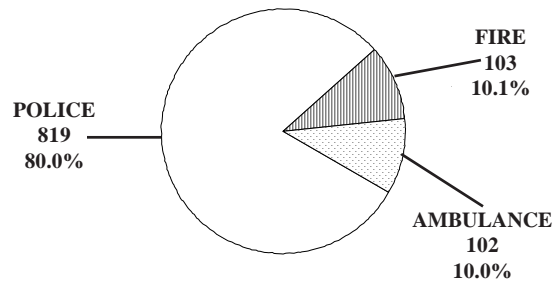
**TYPE OF EMERGENCY SERVICE  
VEHICLES INVOLVED IN 2006 MISSOURI  
TRAFFIC CRASHES WHILE ON  
EMERGENCY RUN**



**TOTAL = 402**

FIGURE 1.0.4

**TYPE OF EMERGENCY SERVICE  
VEHICLES INVOLVED IN 2006 MISSOURI  
TRAFFIC CRASHES NOT ON  
EMERGENCY RUN**



**TOTAL = 1,024**

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.***

### 2006 SUMMARY ANALYSIS

- In 2006, there were 1,045 traffic crashes involving one or more police vehicles in the State of Missouri. Two persons were killed and 257 were injured in these crashes.
- In 23.4% of the traffic crashes involving police vehicles, the police vehicle was on an emergency run at the time of the incident.
- In 2006, one person was killed or injured in a police vehicle related crash every 1.4 days in the State of Missouri.
- Of all 2006 crashes involving police vehicles, the first harmful event in 49.4% of the cases involved one motor vehicle in transport striking another motor vehicle in transport. In 24.0% of the cases, it involved a motor vehicle striking a fixed object. In 14.6% of the cases, the vehicle struck an animal.
- Of all 2006 crashes involving police vehicles, 46.4% occurred in an urban area of the State and 53.6% occurred in a rural area.
- Of all police vehicle drivers in 2006 traffic crashes, 91.4% were male and 8.6% were female. The average age of the police vehicle driver was 35.1 years.
- There were 1,070 police vehicles in the 1,045 traffic crashes in the State. Of these, 959 or 90.1% were automobiles.

**2006 POLICE VEHICLE INVOLVED CRASHES  
EMERGENCY RUN STATUS**

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%	TOTAL NUMBER <sup>1</sup>		POLICE VEHICLE DRIVERS/PASSENGERS <sup>2</sup>	
									KILLED	INJURED	KILLED	INJURED
POLICE VEHICLE ON RUN	0	0.0	61	35.3	184	21.2	245	23.4	0	94	0	85
POLICE VEHICLE NOT ON RUN	2	100.0	112	64.7	686	78.8	800	76.6	2	163	2	139
<b>TOTAL</b>	<b>2</b>	<b>100.0</b>	<b>173</b>	<b>100.0</b>	<b>870</b>	<b>100.0</b>	<b>1,045</b>	<b>100.0</b>	<b>2</b>	<b>257</b>	<b>2</b>	<b>224</b>

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

<sup>2</sup>This statistic indicates the number of police vehicle drivers and passengers killed and injured.

**TABLE 2.0.1**



**2005 and 2006 POLICE VEHICLE INVOLVED CRASH ANALYSIS**

	<b>2005</b>	<b>2006</b>	<b>RATE OF CHANGE</b>
<b>FATAL</b>	2	2	= 0.0
<b>PERSONAL INJURY</b>	190	173	- 8.9
<b>PROPERTY DAMAGE</b>	818	870	+ 6.4
<b>TOTAL</b>	1,010	1,045	+ 3.5

**TABLE 2.0.2**

**2006 POLICE VEHICLE INVOLVED CRASHES**

**CRASH TYPE BY CRASH SEVERITY**

	<b>FATAL</b>	<b>%</b>	<b>PERSONAL INJURY</b>	<b>%</b>	<b>PROPERTY DAMAGE</b>	<b>%</b>	<b>TOTAL</b>	<b>%</b>
ANIMAL	0	0.0	5	2.9	148	17.0	153	14.6
BICYCLIST	0	0.0	2	1.2	0	0.0	2	0.2
FIXED OBJECT	0	0.0	36	20.8	215	24.7	251	24.0
OTHER OBJECT	0	0.0	0	0.0	39	4.5	39	3.7
PEDESTRIAN	1	50.0	3	1.7	0	0.0	4	0.4
TRAIN	0	0.0	0	0.0	0	0.0	0	0.0
VEHICLE IN TRANSPORT	0	0.0	119	68.8	397	45.6	516	49.4
VEHICLE ON OTHER ROADWAY	0	0.0	0	0.0	1	0.1	1	0.1
PARKED VEHICLE	0	0.0	4	2.3	59	6.8	63	6.0
NON-COLLISION OVERTURN	1	50.0	3	1.7	1	0.1	5	0.5
NON-COLLISION OTHER	0	0.0	1	0.6	10	1.2	11	1.1
<b>TOTAL</b>	2	100.0	173	100.0	870	100.0	1,045	100.0

**TABLE 2.0.3**

**2006 POLICE VEHICLE INVOLVED CRASHES**

**AREA CLASSIFICATION BY CRASH SEVERITY**

	<b>FATAL</b>	<b>%</b>	<b>PERSONAL INJURY</b>	<b>%</b>	<b>PROPERTY DAMAGE</b>	<b>%</b>	<b>TOTAL</b>	<b>%</b>
URBAN	1	50.0	92	53.2	392	45.1	485	46.4
RURAL	1	50.0	81	46.8	478	54.9	560	53.6
<b>TOTAL</b>	<b>2</b>	<b>100.0</b>	<b>173</b>	<b>100.0</b>	<b>870</b>	<b>100.0</b>	<b>1,045</b>	<b>100.0</b>

**TABLE 2.0.4**

**2006 POLICE VEHICLE INVOLVED CRASHES**

**ROAD CURVATURE BY CRASH SEVERITY**

	<b>FATAL</b>	<b>%</b>	<b>PERSONAL INJURY</b>	<b>%</b>	<b>PROPERTY DAMAGE</b>	<b>%</b>	<b>TOTAL</b>	<b>%</b>
STRAIGHT	1	50.0	140	80.9	747	86.2	888	85.2
CURVE	1	50.0	33	19.1	120	13.8	154	14.8
UNKNOWN	0	-	0	-	3	-	3	-
<b>TOTAL</b>	<b>2</b>	<b>100.0</b>	<b>173</b>	<b>100.0</b>	<b>870</b>	<b>100.0</b>	<b>1,045</b>	<b>100.0</b>

**TABLE 2.0.5**

**2006 POLICE VEHICLE INVOLVED CRASHES**

**ROAD INCLINE BY CRASH SEVERITY**

	<b>FATAL</b>	<b>%</b>	<b>PERSONAL INJURY</b>	<b>%</b>	<b>PROPERTY DAMAGE</b>	<b>%</b>	<b>TOTAL</b>	<b>%</b>
LEVEL	2	100.0	101	58.4	546	63.2	649	62.5
HILL	0	0.0	65	37.6	290	33.6	355	34.2
CREST	0	0.0	7	4.1	28	3.2	35	3.4
UNKNOWN	0	-	0	-	6	-	6	-
<b>TOTAL</b>	<b>2</b>	<b>100.0</b>	<b>173</b>	<b>100.0</b>	<b>870</b>	<b>100.0</b>	<b>1,045</b>	<b>100.0</b>

**TABLE 2.0.6**

**2006 POLICE VEHICLE INVOLVED CRASHES**

**ROAD CONDITIONS BY CRASH SEVERITY**

	<b>FATAL</b>	<b>%</b>	<b>PERSONAL INJURY</b>	<b>%</b>	<b>PROPERTY DAMAGE</b>	<b>%</b>	<b>TOTAL</b>	<b>%</b>
DRY	1	100.0	138	79.8	741	85.4	880	84.5
WET	0	0.0	31	17.9	108	12.4	139	13.3
SNOW	0	0.0	3	1.7	9	1.0	12	1.2
ICE	0	0.0	1	0.6	9	1.0	10	1.0
SLUSH	0	0.0	0	0.0	1	0.1	1	0.1
MUD	0	0.0	0	0.0	0	0.0	0	0.0
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	1	-	0	-	2	-	3	-
<b>TOTAL</b>	<b>2</b>	<b>100.0</b>	<b>173</b>	<b>100.0</b>	<b>870</b>	<b>100.0</b>	<b>1,045</b>	<b>100.0</b>

**TABLE 2.0.7**

**2006 POLICE VEHICLE INVOLVED CRASHES**

**HIGHWAY CLASSIFICATION BY CRASH SEVERITY**

	<b>FATAL</b>	<b>%</b>	<b>PERSONAL INJURY</b>	<b>%</b>	<b>PROPERTY DAMAGE</b>	<b>%</b>	<b>TOTAL</b>	<b>%</b>
INTERSTATE	0	0.0	13	7.5	60	6.9	73	7.0
U.S. HIGHWAY	0	0.0	18	10.4	95	10.9	113	10.8
STATE NUMBERED	0	0.0	42	24.3	141	16.2	183	17.5
SINGLE STATE LETTERED	1	50.0	13	7.5	69	7.9	83	7.9
DOUBLE STATE LETTERED	0	0.0	2	1.2	14	1.6	16	1.5
OUTER ROAD	0	0.0	3	1.7	11	1.3	14	1.3
COUNTY ROAD	0	0.0	19	11.0	98	11.3	117	11.2
CITY STREET	1	50.0	56	32.4	323	37.1	380	36.4
INTERSTATE LOOP	0	0.0	1	0.6	3	0.3	4	0.4
OTHER <sup>1</sup>	0	0.0	6	3.5	56	6.4	62	5.9
<b>TOTAL</b>	<b>2</b>	<b>100.0</b>	<b>173</b>	<b>100.0</b>	<b>870</b>	<b>100.0</b>	<b>1,045</b>	<b>100.0</b>

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

**TABLE 2.0.8**

**2006 POLICE VEHICLE INVOLVED CRASHES**

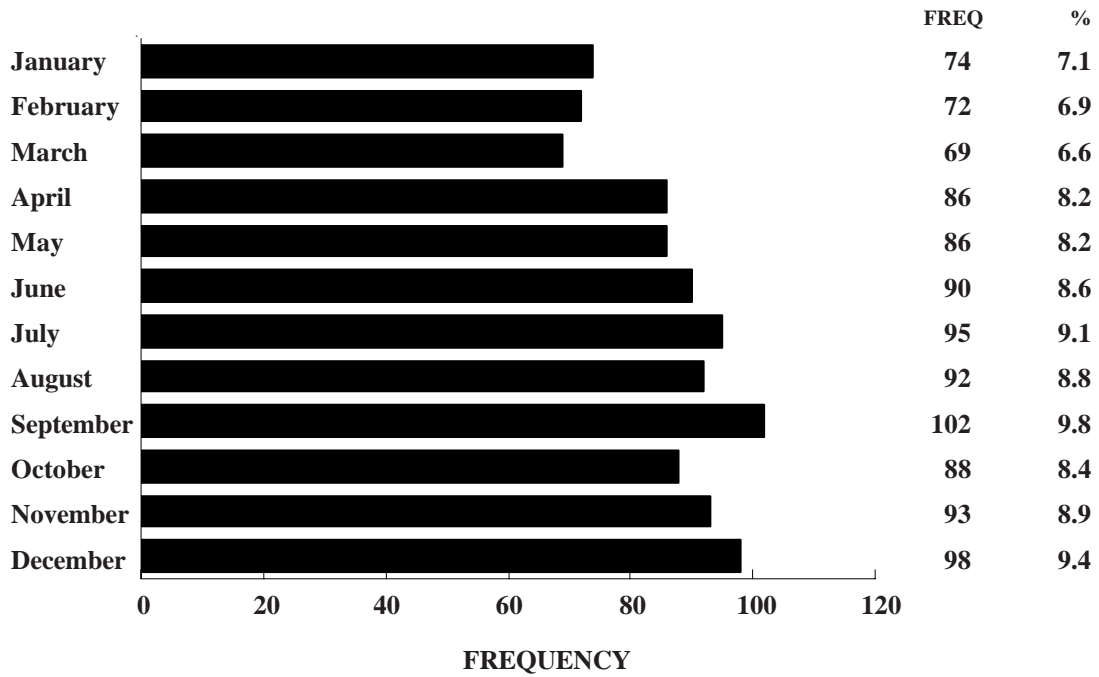
**HIGHWAY CLASSIFICATION BY AREA CLASSIFICATION AND CRASH SEVERITY**

	URBAN						RURAL									
	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
INTERSTATE	0	0.0	5	5.4	22	5.6	27	5.6	0	0.0	8	9.9	38	8.0	46	8.2
U.S. HIGHWAY	0	0.0	11	12.0	22	5.6	33	6.8	0	0.0	7	8.6	73	15.3	80	14.3
STATE NUMBERED	0	0.0	17	18.5	29	7.4	46	9.5	0	0.0	25	30.9	112	23.4	137	24.5
SINGLE STATE LETTERED	0	0.0	2	2.2	2	0.5	4	0.8	1	100.0	11	13.6	67	14.0	79	14.1
DOUBLE STATE LETTERED	0	0.0	1	1.1	1	0.3	2	0.4	0	0.0	1	1.2	13	2.7	14	2.5
OUTER ROAD	0	0.0	0	0.0	4	1.0	4	0.8	0	0.0	3	3.7	7	1.5	10	1.8
COUNTY ROAD	0	0.0	3	3.3	14	3.6	17	3.5	0	0.0	16	19.8	84	17.6	100	17.9
CITY STREET	1	100.0	48	52.2	253	64.5	302	62.3	0	0.0	8	9.9	70	14.6	78	13.9
INTERSTATE LOOP	0	0.0	1	1.1	3	0.8	4	0.8	0	0.0	0	0.0	0	0.0	0	0.0
OTHER <sup>1</sup>	0	0.0	4	4.4	42	10.7	46	9.5	0	0.0	2	2.5	14	2.9	16	2.9
<b>TOTAL</b>	<b>1</b>	<b>100.0</b>	<b>92</b>	<b>100.0</b>	<b>392</b>	<b>100.0</b>	<b>485</b>	<b>100.0</b>	<b>1</b>	<b>100.0</b>	<b>81</b>	<b>100.0</b>	<b>478</b>	<b>100.0</b>	<b>560</b>	<b>100.0</b>

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

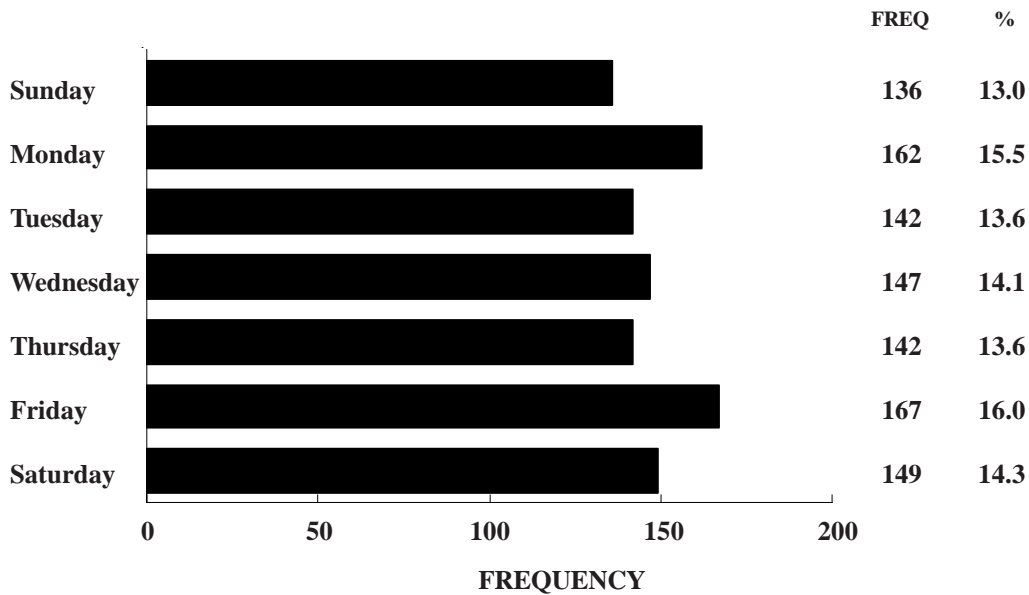
**TABLE 2.0.9**

**2006 POLICE VEHICLE INVOLVED CRASHES  
MONTH OF YEAR**



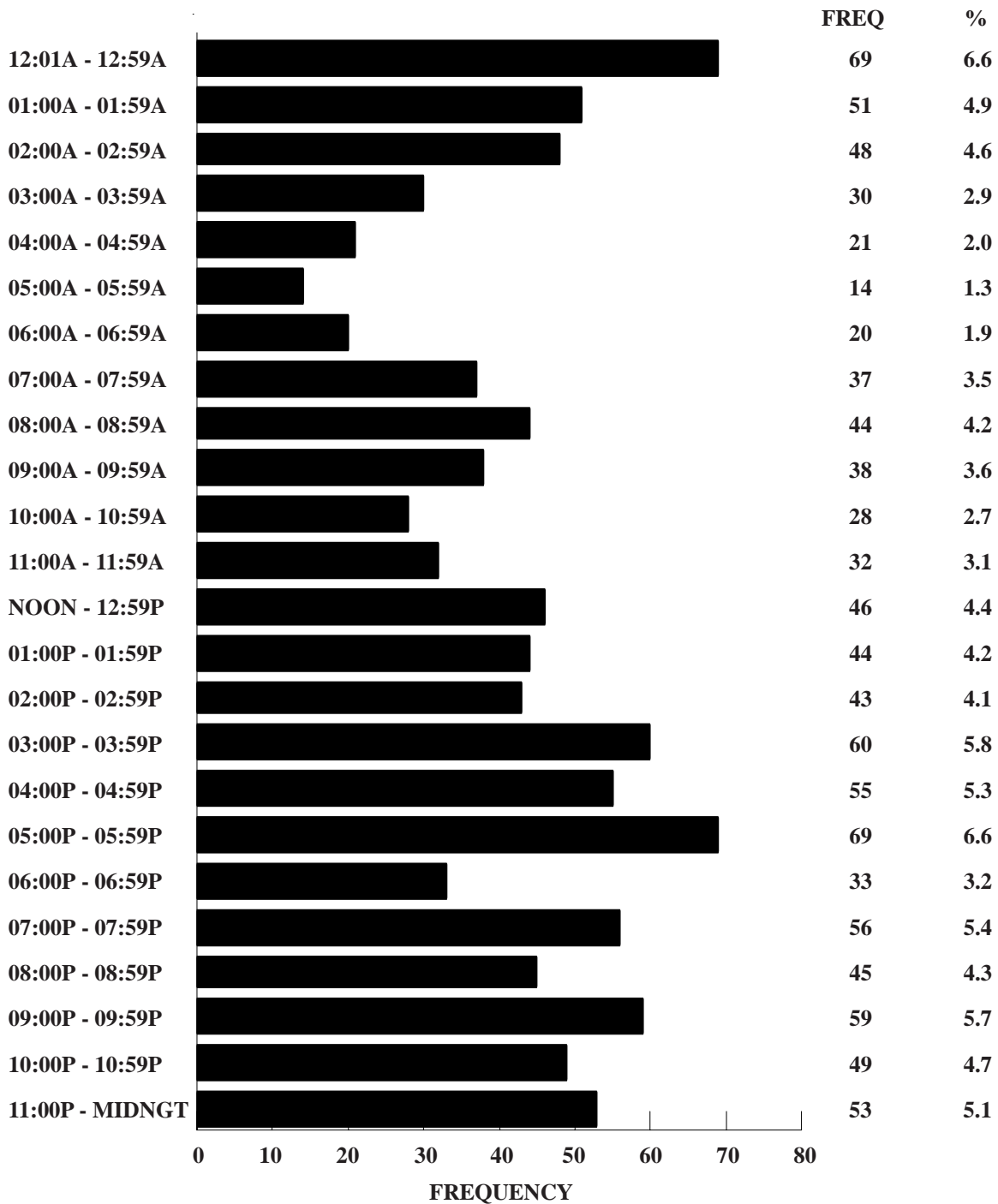
**FIGURE 2.0.1**

**2006 POLICE VEHICLE INVOLVED CRASHES  
DAY OF WEEK**



**FIGURE 2.0.2**

**2006 POLICE VEHICLE INVOLVED CRASHES  
HOUR OF DAY**



**FIGURE 2.0.3**

Unknown Data Not Included

**2006 MISSOURI POLICE VEHICLE CRASHES**

**TYPE OF CIRCUMSTANCE INVOLVED BY CRASH SEVERITY AND PERSON CLASSIFICATION<sup>1</sup>**

FATAL AND PERSONAL INJURY POLICE VEHICLE CRASHES = 175				TOTAL POLICE VEHICLE CRASHES = 1,045		
	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	1.7	1.1	2.8	1.6	1.5	3.1
TRAFFIC CONTROL INOPERATIVE / MISSING	0.6	0.6	0.6	0.2	0.2	0.2
IMPROPERLY STOPPED ON ROADWAY	0.0	1.7	1.7	0.0	0.9	0.9
EXCEEDING SPEED LIMIT / TOO FAST FOR CONDITIONS	13.1	10.3	23.4	9.0	4.3	13.3
IMPROPER PASSING	1.1	1.7	2.8	0.4	0.6	1.0
VIOLATION OF STOP SIGN	2.3	4.0	5.7	0.9	1.6	2.4
WRONG SIDE NOT PASSING	0.6	1.7	2.3	0.5	1.4	1.9
FOLLOWING TOO CLOSE	2.3	4.6	6.3	1.9	2.8	4.6
IMPROPER SIGNAL	0.0	0.0	0.0	0.0	0.3	0.3
IMPROPER BACKING	0.6	0.6	1.1	3.7	2.5	6.2
IMPROPER TURN	4.0	2.3	6.3	2.4	1.6	4.0
IMPROPER LANE USAGE / CHANGE	1.7	5.1	6.8	1.4	3.0	4.3
WRONG WAY ONE-WAY STREET	0.0	1.1	1.1	0.0	0.2	0.2
IMPROPER START FROM PARK	0.0	0.0	0.0	0.1	0.1	0.2
IMPROPERLY PARKED	0.0	0.0	0.0	0.2	0.5	0.7
FAILED TO YIELD	6.3	28.0	33.1	3.3	13.2	16.2
DRINKING	1.1	5.1	6.2	0.6	3.3	3.8
DRUGS	0.0	0.6	0.6	0.0	0.7	0.7
PHYSICAL IMPAIRMENT	1.1	1.7	2.8	1.0	0.5	1.4
INATTENTION	13.1	19.4	32.0	18.5	12.0	30.0

<sup>1</sup>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 2006 Missouri police vehicle crashes, it was found that a police vehicle driver was speeding in 9.0% of the crashes. In 4.3% of the crashes another driver was speeding. In 13.3% of the crashes either a police vehicle driver, another driver, or both drivers were speeding.

**TABLE 2.0.10**

**POLICE VEHICLES INVOLVED IN 2006 MISSOURI CRASHES**

**TYPE OF VEHICLE BY CRASH SEVERITY**

	<b>FATAL</b>	<b>%</b>	<b>PERSONAL INJURY</b>	<b>%</b>	<b>PROPERTY DAMAGE</b>	<b>%</b>	<b>TOTAL</b>	<b>%</b>
AUTOMOBILE	0	0.0	165	90.7	794	90.2	959	90.1
SPORT UTILITY VEHICLE	0	0.0	4	2.2	29	3.3	33	3.1
VAN	0	0.0	3	1.7	20	2.3	23	2.2
BUS	1	50.0	0	0.0	0	0.0	1	0.1
MOTORCYCLE	0	0.0	4	2.2	5	0.6	9	0.9
BICYCLE	0	0.0	1	0.6	0	0.0	1	0.1
FARMEQUIPMENT	1	50.0	0	0.0	0	0.0	1	0.1
PICK-UP TRUCK	0	0.0	3	1.7	26	3.0	29	2.7
OTHER TRUCK	0	0.0	2	1.1	6	0.7	8	0.8
UNKNOWN	0	-	2	-	4	-	6	-
<b>TOTAL</b>	<b>2</b>	<b>100.0</b>	<b>184</b>	<b>100.0</b>	<b>884</b>	<b>100.0</b>	<b>1,070</b>	<b>100.0</b>

**TABLE 2.0.11**

**POLICE VEHICLES INVOLVED IN 2006 MISSOURI CRASHES**

**DRIVER INVOLVEMENT BY CRASH SEVERITY**

	<b>FATAL</b>	<b>%</b>	<b>PERSONAL INJURY</b>	<b>%</b>	<b>PROPERTY DAMAGE</b>	<b>%</b>	<b>TOTAL</b>	<b>%</b>
DRIVERLESS	0	0.0	0	0.0	0	0.0	0	0.0
KNOWN DRIVER INVOLVED	2	100.0	183	99.5	881	99.7	1,066	99.6
UNKNOWN DRIVER INVOLVED	0	0.0	1	0.5	3	0.3	4	0.4
<b>TOTAL</b>	<b>2</b>	<b>100.0</b>	<b>184</b>	<b>100.0</b>	<b>884</b>	<b>100.0</b>	<b>1,070</b>	<b>100.0</b>

**TABLE 2.0.12**



**DRIVERS OF POLICE VEHICLES INVOLVED IN 2006 MISSOURI CRASHES**

**SEX OF DRIVER BY CRASH SEVERITY**

	<b>FATAL</b>	<b>%</b>	<b>PERSONAL INJURY</b>	<b>%</b>	<b>PROPERTY DAMAGE</b>	<b>%</b>	<b>TOTAL</b>	<b>%</b>
MALE	2	100.0	163	89.1	809	91.8	974	91.4
FEMALE	0	0.0	20	10.9	72	8.2	92	8.6
UNKNOWN	0	-	1	-	3	-	4	-
<b>TOTAL</b>	<b>2</b>	<b>100.0</b>	<b>184</b>	<b>100.0</b>	<b>884</b>	<b>100.0</b>	<b>1,070</b>	<b>100.0</b>

**TABLE 2.0.13**

**DRIVERS OF POLICE VEHICLES INVOLVED IN 2006 MISSOURI CRASHES**

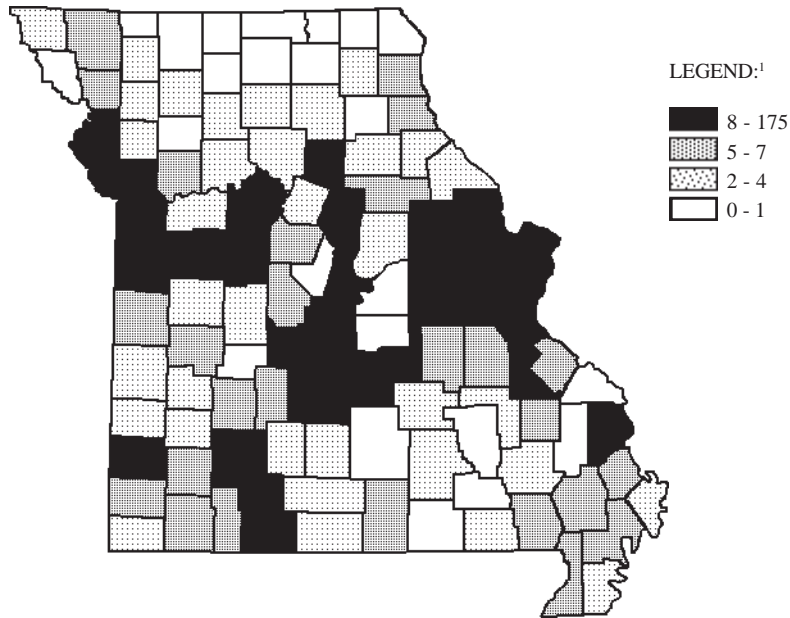
**AGE OF DRIVER BY CRASH SEVERITY**

	<b>FATAL</b>	<b>%</b>	<b>PERSONAL INJURY</b>	<b>%</b>	<b>PROPERTY DAMAGE</b>	<b>%</b>	<b>TOTAL</b>	<b>%</b>
<b>AVERAGE AGE OF DRIVER</b>	58.5	-	35.6	-	34.9	-	35.1	-
14 YEARS AND UNDER	0	0.0	0	0.0	0	0.0	0	0.0
15 - 20 YEARS	0	0.0	2	1.1	8	0.9	10	1.0
21 - 25 YEARS	0	0.0	23	12.6	133	15.3	156	14.8
26 - 30 YEARS	0	0.0	46	25.1	218	25.1	264	25.0
31 - 35 YEARS	0	0.0	39	21.3	186	21.4	225	21.3
36 - 40 YEARS	0	0.0	24	13.1	123	14.1	147	13.9
41 - 45 YEARS	0	0.0	20	10.9	62	7.1	82	7.8
46 - 50 YEARS	0	0.0	5	2.7	51	5.9	56	5.3
51 - 55 YEARS	1	50.0	13	7.1	41	4.7	55	5.2
56 - 60 YEARS	0	0.0	6	3.3	27	3.1	33	3.1
61 - 65 YEARS	1	50.0	2	1.1	13	1.5	16	1.5
66 YEARS AND OVER	0	0.0	3	1.6	8	0.9	11	1.0
UNKNOWN	0	-	1	-	14	-	15	-
<b>TOTAL</b>	<b>2</b>	<b>100.0</b>	<b>184</b>	<b>100.0</b>	<b>884</b>	<b>100.0</b>	<b>1,070</b>	<b>100.0</b>

**TABLE 2.0.14**

## 2006 POLICE VEHICLE INVOLVED CRASHES

### COUNTY QUARTILE ANALYSIS



<sup>1</sup>LEGEND CATEGORIES ARE BASED ON QUARTILES OF COUNTIES.

RANK	COUNTY	FREQUENCY	PERCENT	RANK	COUNTY	FREQUENCY	PERCENT
1.0	ST. LOUIS	175	16.7	21.5	MONTGOMERY	11	1.1
2.0	JACKSON	89	8.5	21.5	TANEY	11	1.1
3.0	ST. LOUIS CITY	79	7.6	23.0	LINCOLN	10	1.0
4.0	ST. CHARLES	52	5.0	25.0	CASS	9	0.9
5.0	JEFFERSON	32	3.1	25.0	LACLEDE	9	0.9
6.0	PLATTE	27	2.6	25.0	WARREN	9	0.9
7.0	GREENE	25	2.4	29.0	CAMDEN	8	0.8
8.0	FRANKLIN	24	2.3	29.0	CHRISTIAN	8	0.8
9.0	CLAY	21	2.0	29.0	GASCONADE	8	0.8
10.0	ST. FRANCOIS	18	1.7	29.0	RANDOLPH	8	0.8
11.5	BOONE	17	1.6	29.0	SALINE	8	0.8
11.5	JASPER	17	1.6				
13.5	BUCHANAN	15	1.4				First Quartile
13.5	PHELPS	15	1.4				
15.0	CAPE GIRARDEAU	14	1.3	35.0	ANDREW	7	0.7
16.5	COLE	13	1.2	35.0	BATES	7	0.7
16.5	PETTIS	13	1.2	35.0	DUNKLIN	7	0.7
19.0	JOHNSON	12	1.1	35.0	LEWIS	7	0.7
19.0	MILLER	12	1.1	35.0	POLK	7	0.7
19.0	PULASKI	12	1.1	35.0	SCOTT	7	0.7

RANK	COUNTY	FREQUENCY	PERCENT	RANK	COUNTY	FREQUENCY	PERCENT
35.0	WASHINGTON	7	0.7	84.5	ATCHISON	2	0.2
42.0	AUDRAIN	6	0.6	84.5	CEDAR	2	0.2
42.0	BUTLER	6	0.6	84.5	DADE	2	0.2
42.0	NEW MADRID	6	0.6	84.5	DOUGLAS	2	0.2
42.0	NEWTON	6	0.6	84.5	GENTRY	2	0.2
42.0	STE. GENEVIEVE	6	0.6	84.5	HOWARD	2	0.2
42.0	STODDARD	6	0.6	84.5	KNOX	2	0.2
42.0	STONE	6	0.6	84.5	LINN	2	0.2
51.5	BARRY	5	0.5	84.5	MISSISSIPPI	2	0.2
51.5	COOPER	5	0.5	84.5	MONROE	2	0.2
51.5	CRAWFORD	5	0.5	84.5	OZARK	2	0.2
51.5	DALLAS	5	0.5	84.5	PIKE	2	0.2
51.5	HOWELL	5	0.5	84.5	RALLS	2	0.2
51.5	LAWRENCE	5	0.5	84.5	SHANNON	2	0.2
51.5	MADISON	5	0.5	84.5	WAYNE	2	0.2
51.5	MARION	5	0.5	84.5	WRIGHT	2	0.2
51.5	MORGAN	5	0.5				
51.5	NODAWAY	5	0.5				
51.5	RAY	5	0.5				
51.5	ST. CLAIR	5	0.5				
Second Quartile				Third Quartile			
62.5	BARTON	4	0.4	99.5	ADAIR	1	0.1
62.5	BENTON	4	0.4	99.5	CLARK	1	0.1
62.5	CALLAWAY	4	0.4	99.5	HARRISON	1	0.1
62.5	DENT	4	0.4	99.5	HOLT	1	0.1
62.5	HENRY	4	0.4	99.5	MARIES	1	0.1
62.5	LIVINGSTON	4	0.4	99.5	MERCER	1	0.1
62.5	MACON	4	0.4	99.5	MONITEAU	1	0.1
62.5	RIPLEY	4	0.4	99.5	OREGON	1	0.1
62.5	VERNON	4	0.4	99.5	OSAGE	1	0.1
62.5	WEBSTER	4	0.4	99.5	REYNOLDS	1	0.1
72.0	CARROLL	3	0.3	99.5	SCOTLAND	1	0.1
72.0	CHARITON	3	0.3	99.5	SHELBY	1	0.1
72.0	CLINTON	3	0.3	99.5	TEXAS	1	0.1
72.0	DAVISS	3	0.3	99.5	WORTH	1	0.1
72.0	DE KALB	3	0.3	111.0	BOLLINGER	0	0.0
72.0	IRON	3	0.3	111.0	CALDWELL	0	0.0
72.0	LAFAYETTE	3	0.3	111.0	CARTER	0	0.0
72.0	MC DONALD	3	0.3	111.0	GRUNDY	0	0.0
72.0	PEMISCOT	3	0.3	111.0	HICKORY	0	0.0
				111.0	PERRY	0	0.0
				111.0	PUTNAM	0	0.0
				111.0	SCHUYLER	0	0.0
				111.0	SULLIVAN	0	0.0
Third Quartile				Fourth Quartile			

TABLE 2.0.15

### 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.*

#### 2006 SUMMARY ANALYSIS

- In 2006, there were 174 traffic crashes involving one or more fire vehicles in the State of Missouri. Three people were killed and 39 were injured in these crashes.
- In 43.7% of the traffic crashes involving fire vehicles, the fire vehicle was on an emergency run at the time of the incident.
- In 2006, one person was injured in a fire vehicle related crash every 8.7 days in the State of Missouri.
- Of all 2006 crashes involving fire vehicles, the first harmful event in 53.5% of the cases involved one motor vehicle in transport striking another motor vehicle in transport. In 28.7% of the cases, it involved a motor vehicle striking a parked vehicle. In 13.2% of the cases, the vehicle struck a fixed object.
- Of all 2006 crashes involving fire vehicles, 60.3% occurred in an urban area of the State and 39.7% occurred in a rural area.
- Of all fire vehicle drivers in 2006 traffic crashes, 97.8% were male and 2.2% were female. The average age of the fire vehicle driver was 38.5 years.

**2006 FIRE VEHICLE INVOLVED CRASHES  
EMERGENCY RUN STATUS**

	FATAL		PERSONAL INJURY		PROPERTY DAMAGE		TOTAL		TOTAL NUMBER <sup>1</sup> KILLED		FIRE VEHICLE DRIVERS/PASSENGERS <sup>2</sup> KILLED	
		%		%		%		%	INJURED		INJURED	
FIRE VEHICLE ON RUN	3	100.0	10	58.8	63	40.9	76	43.7	3	25	0	14
FIRE VEHICLE NOT ON RUN	0	0.0	7	41.2	91	59.1	98	56.3	0	14	0	4
<b>TOTAL</b>	<b>3</b>	<b>100.0</b>	<b>17</b>	<b>100.0</b>	<b>154</b>	<b>100.0</b>	<b>174</b>	<b>100.0</b>	<b>3</b>	<b>39</b>	<b>0</b>	<b>18</b>

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

<sup>2</sup>This statistic indicates the number of fire vehicle drivers and passengers killed and injured.

**TABLE 3.0.1**

**2005 and 2006 FIRE VEHICLE INVOLVED CRASH ANALYSIS**

	2005	2006	RATE OF CHANGE
<b>FATAL</b>	0	3	(+3)
<b>PERSONAL INJURY</b>	33	17	- 48.5
<b>PROPERTY DAMAGE</b>	128	154	+ 20.3
<b>TOTAL</b>	161	174	+ 8.1

**TABLE 3.0.2**

**2006 FIRE VEHICLE INVOLVED CRASHES**

**CRASH TYPE BY CRASH SEVERITY**

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
ANIMAL	0	0.0	0	0.0	2	1.3	2	1.2
BICYCLIST	0	0.0	0	0.0	0	0.0	0	0.0
FIXED OBJECT	0	0.0	2	11.8	21	13.6	23	13.2
OTHER OBJECT	0	0.0	0	0.0	1	0.7	1	0.6
PEDESTRIAN	0	0.0	1	5.9	0	0.0	1	0.6
TRAIN	0	0.0	0	0.0	0	0.0	0	0.0
VEHICLE IN TRANSPORT	3	100.0	12	70.6	78	50.7	93	53.5
VEHICLE ON OTHER ROADWAY	0	0.0	0	0.0	1	0.7	1	0.6
PARKED VEHICLE	0	0.0	0	0.0	50	32.5	50	28.7
NON-COLLISION OVERTURN	0	0.0	2	11.8	1	0.7	3	1.7
NON-COLLISION OTHER	0	0.0	0	0.0	0	0.0	0	0.0
<b>TOTAL</b>	3	100.0	17	100.0	154	100.0	174	100.0

**TABLE 3.0.3**

**2006 FIRE VEHICLE INVOLVED CRASHES**

**AREA CLASSIFICATION BY CRASH SEVERITY**

	<b>FATAL</b>	<b>%</b>	<b>PERSONAL INJURY</b>	<b>%</b>	<b>PROPERTY DAMAGE</b>	<b>%</b>	<b>TOTAL</b>	<b>%</b>
URBAN	1	33.3	9	52.9	95	61.7	105	60.3
RURAL	2	66.7	8	47.1	59	38.3	69	39.7
<b>TOTAL</b>	<b>3</b>	<b>100.0</b>	<b>17</b>	<b>100.0</b>	<b>154</b>	<b>100.0</b>	<b>174</b>	<b>100.0</b>

**TABLE 3.0.4**

**2006 FIRE VEHICLE INVOLVED CRASHES**

**ROAD CURVATURE BY CRASH SEVERITY**

	<b>FATAL</b>	<b>%</b>	<b>PERSONAL INJURY</b>	<b>%</b>	<b>PROPERTY DAMAGE</b>	<b>%</b>	<b>TOTAL</b>	<b>%</b>
STRAIGHT	2	66.7	13	76.5	129	83.8	144	82.8
CURVE	1	33.3	4	23.5	25	16.2	30	17.2
UNKNOWN	0	-	0	-	0	-	0	-
<b>TOTAL</b>	<b>3</b>	<b>100.0</b>	<b>17</b>	<b>100.0</b>	<b>154</b>	<b>100.0</b>	<b>174</b>	<b>100.0</b>

**TABLE 3.0.5**

**2006 FIRE VEHICLE INVOLVED CRASHES**

**ROAD INCLINE BY CRASH SEVERITY**

	<b>FATAL</b>	<b>%</b>	<b>PERSONAL INJURY</b>	<b>%</b>	<b>PROPERTY DAMAGE</b>	<b>%</b>	<b>TOTAL</b>	<b>%</b>
LEVEL	1	33.3	13	76.5	103	66.9	117	67.2
HILL	1	33.3	4	23.5	47	30.5	52	29.9
CREST	1	33.3	0	0.0	4	2.6	5	2.9
UNKNOWN	0	-	0	-	0	-	0	-
<b>TOTAL</b>	<b>3</b>	<b>100.0</b>	<b>17</b>	<b>100.0</b>	<b>154</b>	<b>100.0</b>	<b>174</b>	<b>100.0</b>

**TABLE 3.0.6**

**2006 FIRE VEHICLE INVOLVED CRASHES**

**ROAD CONDITIONS BY CRASH SEVERITY**

	<b>FATAL</b>	<b>%</b>	<b>PERSONAL INJURY</b>	<b>%</b>	<b>PROPERTY DAMAGE</b>	<b>%</b>	<b>TOTAL</b>	<b>%</b>
DRY	3	100.0	14	82.4	129	83.8	146	83.9
WET	0	0.0	3	17.6	16	10.4	19	10.9
SNOW	0	0.0	0	0.0	5	3.3	5	2.9
ICE	0	0.0	0	0.0	3	2.0	3	1.7
SLUSH	0	0.0	0	0.0	1	0.7	1	0.6
MUD	0	0.0	0	0.0	0	0.0	0	0.0
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	-
<b>TOTAL</b>	<b>3</b>	<b>100.0</b>	<b>17</b>	<b>100.0</b>	<b>154</b>	<b>100.0</b>	<b>174</b>	<b>100.0</b>

**TABLE 3.0.7**

**2006 FIRE VEHICLE INVOLVED CRASHES**

**HIGHWAY CLASSIFICATION BY CRASH SEVERITY**

	<b>FATAL</b>	<b>%</b>	<b>PERSONAL INJURY</b>	<b>%</b>	<b>PROPERTY DAMAGE</b>	<b>%</b>	<b>TOTAL</b>	<b>%</b>
INTERSTATE	0	0.0	2	11.8	9	5.8	11	6.3
U.S. HIGHWAY	1	33.3	3	17.7	4	2.6	8	4.6
STATE NUMBERED	1	33.3	3	17.7	17	11.0	21	12.1
SINGLE STATE LETTERED	0	0.0	3	17.7	11	7.1	14	8.1
DOUBLE STATE LETTERED	0	0.0	1	5.9	2	1.3	3	1.7
OUTER ROAD	0	0.0	0	0.0	1	0.7	1	0.6
COUNTY ROAD	0	0.0	1	5.9	14	9.1	15	8.6
CITY STREET	1	33.3	4	23.5	87	56.5	92	52.9
INTERSTATE LOOP	0	0.0	0	0.0	0	0.0	0	0.0
OTHER <sup>1</sup>	0	0.0	0	0.0	9	5.8	9	5.2
<b>TOTAL</b>	<b>3</b>	<b>100.0</b>	<b>17</b>	<b>100.0</b>	<b>154</b>	<b>100.0</b>	<b>174</b>	<b>100.0</b>

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

**TABLE 3.0.8**



**2006 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	11.1	4	4.2	5	4.8	0	0.0	1	12.5	5	8.5	6	8.7
U.S. HIGHWAY	0	0.0	2	22.2	2	2.1	4	3.8	1	50.0	1	12.5	2	3.4	4	5.8
STATE NUMBERED	0	0.0	1	11.1	5	5.3	6	5.7	1	50.0	2	25.0	12	20.3	15	21.7
SINGLE STATE LETTERED	0	0.0	1	11.1	1	1.1	2	1.9	0	0.0	2	25.0	10	17.0	12	17.4
DOUBLE STATE LETTERED	0	0.0	0	0.0	1	1.1	1	1.0	0	0.0	1	12.5	1	1.7	2	2.9
OUTER ROAD	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	1.7	1	1.5
COUNTY ROAD	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	12.5	14	23.7	15	21.7
CITY STREET	1	100.0	4	44.4	77	81.1	82	78.1	0	0.0	0	0.0	10	17.0	10	14.5
INTERSTATE LOOP	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
OTHER <sup>1</sup>	0	0.0	0	0.0	5	5.3	5	4.8	0	0.0	0	0.0	4	6.8	4	5.8
<b>TOTAL</b>	<b>1</b>	<b>100.0</b>	<b>9</b>	<b>100.0</b>	<b>95</b>	<b>100.0</b>	<b>105</b>	<b>100.0</b>	<b>2</b>	<b>100.0</b>	<b>8</b>	<b>100.0</b>	<b>59</b>	<b>100.0</b>	<b>69</b>	<b>100.0</b>

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

**TABLE 3.0.9**

**2006 FIRE VEHICLE INVOLVED CRASHES  
MONTH OF YEAR**

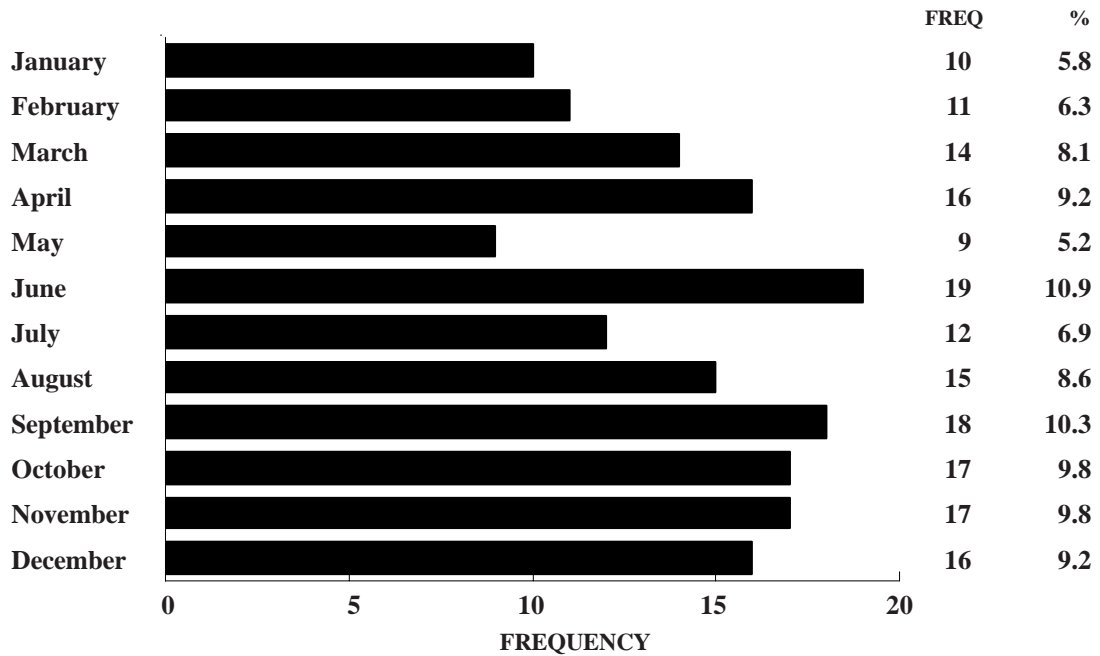


FIGURE 3.0.1

**2006 FIRE VEHICLE INVOLVED CRASHES  
DAY OF WEEK**

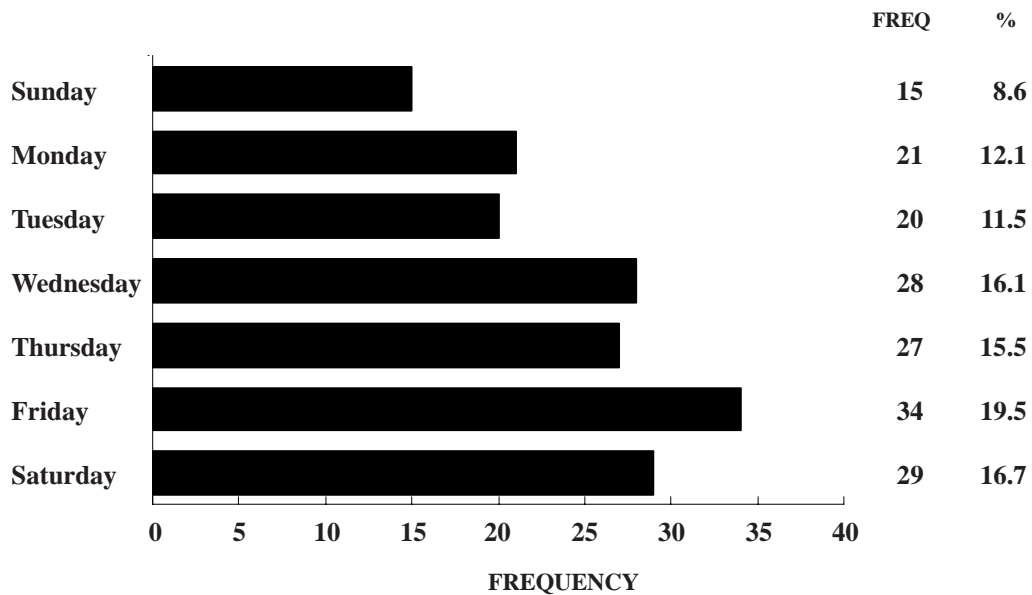
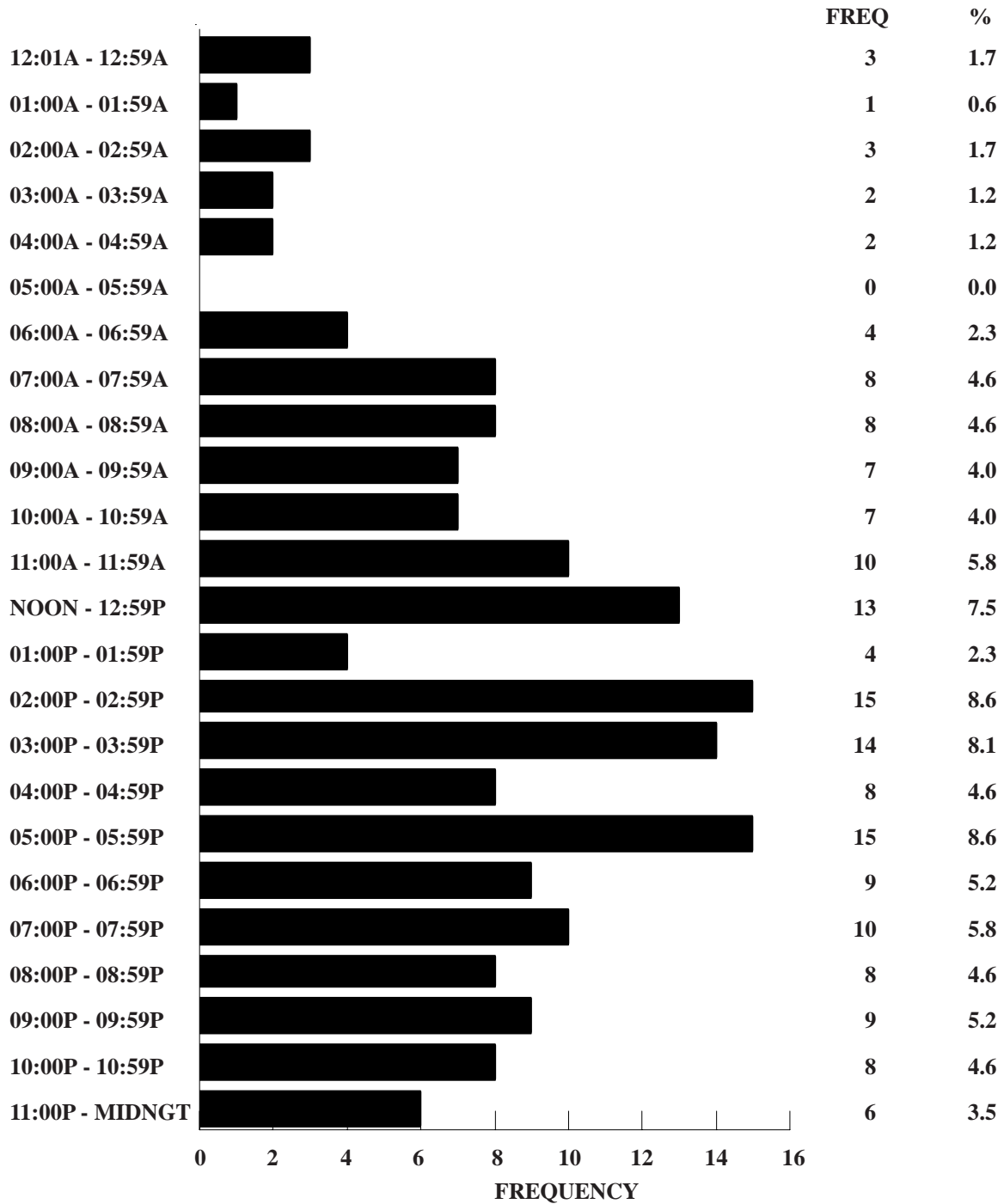


FIGURE 3.0.2

**2006 FIRE VEHICLE INVOLVED CRASHES  
HOUR OF DAY**



**FIGURE 3.0.3**

**2006 MISSOURI FIRE VEHICLE CRASHES**

**TYPE OF CIRCUMSTANCE INVOLVED BY CRASH SEVERITY AND PERSON CLASSIFICATION<sup>1</sup>**

FATAL AND PERSONAL INJURY FIRE VEHICLE CRASHES = 20				TOTAL FIRE VEHICLE CRASHES = 174		
	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	4.0	0.0	4.0
TRAFFIC CONTROL INOPERATIVE / MISSING	0.0	0.0	0.0	0.0	0.0	0.0
IMPROPERLY STOPPED ON ROADWAY	0.0	5.0	5.0	0.6	1.7	2.3
EXCEEDING SPEED LIMIT / TOO FAST FOR CONDITIONS	25.0	0.0	25.0	6.9	4.0	10.9
IMPROPER PASSING	5.0	0.0	5.0	0.6	1.7	2.3
VIOLATION OF STOP SIGN	10.0	0.0	10.0	1.1	0.0	1.1
WRONG SIDE NOT PASSING	5.0	0.0	5.0	0.6	1.1	1.7
FOLLOWING TOO CLOSE	0.0	5.0	5.0	1.7	2.9	4.6
IMPROPER SIGNAL	0.0	0.0	0.0	0.0	0.0	0.0
IMPROPER BACKING	0.0	0.0	0.0	5.2	0.0	5.2
IMPROPER TURN	0.0	0.0	0.0	4.6	1.7	6.3
IMPROPER LANE USAGE / CHANGE	0.0	5.0	5.0	2.3	4.0	5.7
WRONG WAY ONE-WAY STREET	0.0	0.0	0.0	0.0	0.0	0.0
IMPROPER START FROM PARK	0.0	0.0	0.0	0.6	0.0	0.6
IMPROPERLY PARKED	0.0	0.0	0.0	1.1	2.9	4.0
FAILED TO YIELD	20.0	30.0	45.0	2.9	10.3	12.6
DRINKING	0.0	5.0	5.0	0.0	1.7	1.7
DRUGS	0.0	0.0	0.0	0.0	0.0	0.0
PHYSICAL IMPAIRMENT	0.0	0.0	0.0	0.0	0.0	0.0
INATTENTION	20.0	10.0	25.0	24.7	9.2	32.8

<sup>1</sup>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 2006 Missouri fire vehicle crashes, it was found that a fire vehicle driver was speeding in 6.9% of the crashes. In 4.0% of the crashes another driver was speeding. In 10.9% of the crashes either a fire vehicle driver, another driver, or both drivers were speeding.

**TABLE 3.0.10**

**FIRE VEHICLES INVOLVED IN 2006 MISSOURI CRASHES**

**TYPE OF VEHICLE BY CRASH SEVERITY**

	<b>FATAL</b>	<b>%</b>	<b>PERSONAL INJURY</b>	<b>%</b>	<b>PROPERTY DAMAGE</b>	<b>%</b>	<b>TOTAL</b>	<b>%</b>
AUTOMOBILE	0	0.0	0	0.0	3	1.9	3	1.7
SPORT UTILITY VEHICLE	1	33.3	4	23.5	13	8.3	18	10.2
VAN	0	0.0	0	0.0	2	1.3	2	1.1
OTHER TRANSPORT DEVICE	0	0.0	0	0.0	19	12.2	19	10.8
PICK-UP TRUCK	1	33.3	3	17.7	15	9.6	19	10.8
OTHER TRUCK	1	33.3	10	58.8	104	66.7	115	65.3
UNKNOWN	0	-	0	-	5	-	5	-
<b>TOTAL</b>	<b>3</b>	<b>100.0</b>	<b>17</b>	<b>100.0</b>	<b>161</b>	<b>100.0</b>	<b>181</b>	<b>100.0</b>

**TABLE 3.0.11**

**FIRE VEHICLES INVOLVED IN 2006 MISSOURI CRASHES**

**DRIVER INVOLVEMENT BY CRASH SEVERITY**

	<b>FATAL</b>	<b>%</b>	<b>PERSONAL INJURY</b>	<b>%</b>	<b>PROPERTY DAMAGE</b>	<b>%</b>	<b>TOTAL</b>	<b>%</b>
DRIVERLESS	0	0.0	0	0.0	0	0.0	0	0.0
KNOWN DRIVER INVOLVED	3	100.0	17	100.0	158	98.1	178	98.3
UNKNOWN DRIVER INVOLVED	0	0.0	0	0.0	3	1.9	3	1.7
<b>TOTAL</b>	<b>3</b>	<b>100.0</b>	<b>17</b>	<b>100.0</b>	<b>161</b>	<b>100.0</b>	<b>181</b>	<b>100.0</b>

**TABLE 3.0.12**

**DRIVERS OF FIRE VEHICLES INVOLVED IN 2006 MISSOURI CRASHES**

**SEX OF DRIVER BY CRASH SEVERITY**

	<b>FATAL</b>	<b>%</b>	<b>PERSONAL INJURY</b>	<b>%</b>	<b>PROPERTY DAMAGE</b>	<b>%</b>	<b>TOTAL</b>	<b>%</b>
MALE	1	33.3	17	100.0	156	98.7	174	97.8
FEMALE	2	66.7	0	0.0	2	1.3	4	2.2
UNKNOWN	0	-	0	-	3	-	3	-
<b>TOTAL</b>	<b>3</b>	<b>100.0</b>	<b>17</b>	<b>100.0</b>	<b>161</b>	<b>100.0</b>	<b>181</b>	<b>100.0</b>

**TABLE 3.0.13**

**DRIVERS OF FIRE VEHICLES INVOLVED IN 2006 MISSOURI CRASHES**

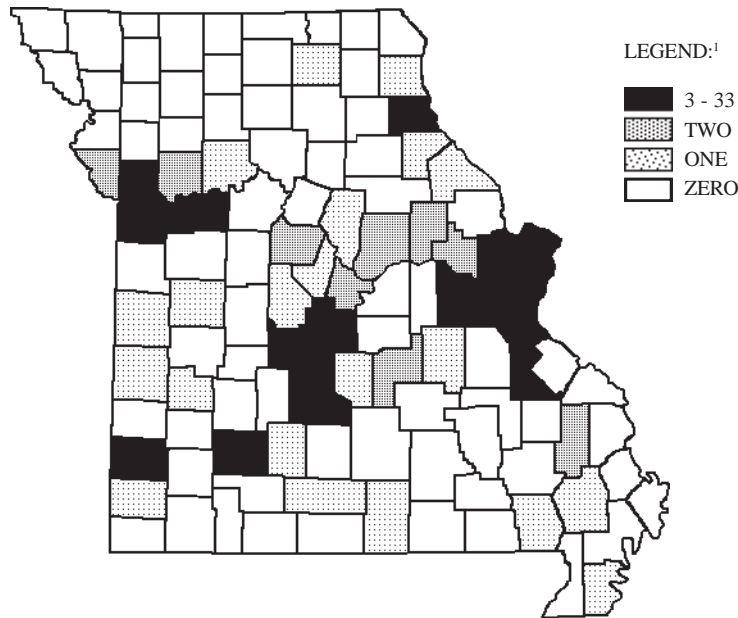
**AGE OF DRIVER BY CRASH SEVERITY**

	<b>FATAL</b>	<b>%</b>	<b>PERSONAL INJURY</b>	<b>%</b>	<b>PROPERTY DAMAGE</b>	<b>%</b>	<b>TOTAL</b>	<b>%</b>
<b>AVERAGE AGE OF DRIVER</b>	31.3	-	39.7	-	38.5	-	38.5	-
14 YEARS AND UNDER	0	0.0	0	0.0	0	0.0	0	0.0
15 - 20 YEARS	0	0.0	0	0.0	6	3.8	6	3.4
21 - 25 YEARS	1	33.3	4	23.5	14	8.9	19	10.7
26 - 30 YEARS	0	0.0	1	5.9	26	16.5	27	15.2
31 - 35 YEARS	1	33.3	1	5.9	24	15.2	26	14.6
36 - 40 YEARS	1	33.3	3	17.7	28	17.7	32	18.0
41 - 45 YEARS	0	0.0	0	0.0	19	12.0	19	10.7
46 - 50 YEARS	0	0.0	6	35.3	14	8.9	20	11.2
51 - 55 YEARS	0	0.0	1	5.9	16	10.1	17	9.6
56 - 60 YEARS	0	0.0	1	5.9	3	1.9	4	2.3
61 - 65 YEARS	0	0.0	0	0.0	4	2.5	4	2.3
66 YEARS AND OVER	0	0.0	0	0.0	4	2.5	4	2.3
UNKNOWN	0	-	0	-	3	-	3	-
<b>TOTAL</b>	<b>3</b>	<b>100.0</b>	<b>17</b>	<b>100.0</b>	<b>161</b>	<b>100.0</b>	<b>181</b>	<b>100.0</b>

**TABLE 3.0.14**

## 2006 FIRE VEHICLE INVOLVED CRASHES

### COUNTY QUARTILE ANALYSIS



<sup>1</sup>LEGEND CATEGORIES ARE BASED ON QUARTILES OF COUNTIES.

RANK	COUNTY	FREQUENCY	PERCENT	RANK	COUNTY	FREQUENCY	PERCENT
1.0	ST. LOUIS CITY	33	19.0	20.0	COLE	2	1.1
2.0	ST. LOUIS	29	16.7	20.0	COOPER	2	1.1
3.0	JACKSON	26	14.9	20.0	MONTGOMERY	2	1.1
4.0	CLAY	7	4.0	20.0	PHELPS	2	1.1
5.0	ST. CHARLES	6	3.4	20.0	PLATTE	2	1.1
6.0	ST. FRANCOIS	5	2.9	20.0	RAY	2	1.1
7.5	CAMDEN	4	2.3	20.0	WARREN	2	1.1
7.5	FRANKLIN	4	2.3				
12.0	GREENE	3	1.7				Second Quartile
12.0	JASPER	3	1.7				
12.0	JEFFERSON	3	1.7				Third Quartile
12.0	LACLEDE	3	1.7	35.0	ADAIR	1	0.6
12.0	LAFAYETTE	3	1.7	35.0	BATES	1	0.6
12.0	MARION	3	1.7	35.0	BOONE	1	0.6
12.0	MILLER	3	1.7	35.0	BUTLER	1	0.6
			First Quartile	35.0	CARROLL	1	0.6
				35.0	CEDAR	1	0.6
			Second Quartile	35.0	CRAWFORD	1	0.6
20.0	BOLLINGER	2	1.1	35.0	DOUGLAS	1	0.6
20.0	CALLAWAY	2	1.1	35.0	HENRY	1	0.6
				35.0	HOWELL	1	0.6

RANK	COUNTY	FREQUENCY	PERCENT	RANK	COUNTY	FREQUENCY	PERCENT
35.0	LEWIS	1	0.6	80.5	IRON	0	0.0
35.0	MONITEAU	1	0.6	80.5	JOHNSON	0	0.0
35.0	MORGAN	1	0.6	80.5	KNOX	0	0.0
35.0	NEWTON	1	0.6	80.5	LAWRENCE	0	0.0
35.0	PEMISCOT	1	0.6	80.5	LINCOLN	0	0.0
35.0	PIKE	1	0.6	80.5	LINN	0	0.0
35.0	PULASKI	1	0.6	80.5	LIVINGSTON	0	0.0
35.0	RALLS	1	0.6	80.5	MC DONALD	0	0.0
35.0	STODDARD	1	0.6	80.5	MACON	0	0.0
35.0	VERNON	1	0.6	80.5	MADISON	0	0.0
35.0	WEBSTER	1	0.6	80.5	MARIES	0	0.0
Third Quartile				80.5	MERCER	0	0.0
Fourth Quartile				80.5	MISSISSIPPI	0	0.0
80.5	ANDREW	0	0.0	80.5	MONROE	0	0.0
80.5	ATCHISON	0	0.0	80.5	NEW MADRID	0	0.0
80.5	AUDRAIN	0	0.0	80.5	NODAWAY	0	0.0
80.5	BARRY	0	0.0	80.5	OREGON	0	0.0
80.5	BARTON	0	0.0	80.5	OSAGE	0	0.0
80.5	BENTON	0	0.0	80.5	OZARK	0	0.0
80.5	BUCHANAN	0	0.0	80.5	PERRY	0	0.0
80.5	CALDWELL	0	0.0	80.5	PETTIS	0	0.0
80.5	CAPE GIRARDEAU	0	0.0	80.5	POLK	0	0.0
80.5	CARTER	0	0.0	80.5	PUTNAM	0	0.0
80.5	CASS	0	0.0	80.5	RANDOLPH	0	0.0
80.5	CHARITON	0	0.0	80.5	REYNOLDS	0	0.0
80.5	CHRISTIAN	0	0.0	80.5	RIPLEY	0	0.0
80.5	CLARK	0	0.0	80.5	ST. CLAIR	0	0.0
80.5	CLINTON	0	0.0	80.5	STE. GENEVIEVE	0	0.0
80.5	DADE	0	0.0	80.5	SALINE	0	0.0
80.5	DALLAS	0	0.0	80.5	SCHUYLER	0	0.0
80.5	DAVISS	0	0.0	80.5	SCOTLAND	0	0.0
80.5	DE KALB	0	0.0	80.5	SCOTT	0	0.0
80.5	DENT	0	0.0	80.5	SHANNON	0	0.0
80.5	DUNKLIN	0	0.0	80.5	SHELBY	0	0.0
80.5	GASCONADE	0	0.0	80.5	STONE	0	0.0
80.5	GENTRY	0	0.0	80.5	SULLIVAN	0	0.0
80.5	GRUNDY	0	0.0	80.5	TANEY	0	0.0
80.5	HARRISON	0	0.0	80.5	TEXAS	0	0.0
80.5	HICKORY	0	0.0	80.5	WASHINGTON	0	0.0
80.5	HOLT	0	0.0	80.5	WAYNE	0	0.0
80.5	HOWARD	0	0.0	80.5	WORTH	0	0.0
				80.5	WRIGHT	0	0.0

TABLE 3.0.15



## 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.***

### 2006 SUMMARY ANALYSIS

- In 2006, there were 137 traffic crashes involving one or more ambulances in the State of Missouri. No one was killed and 45 were injured in these crashes.
- In 29.9% of the traffic crashes involving ambulances, the ambulance was on an emergency run at the time of the incident.
- In 2006, one person was killed or injured in an ambulance related crash every 8.1 days in the State of Missouri.
- Of all 2006 crashes involving ambulances, the first harmful event in 66.4% of the cases involved one motor vehicle in transport striking another motor vehicle in transport. In 11.0% of the cases a motor vehicle struck an animal, and in 10.2% of the cases, a motor vehicle struck a parked vehicle.
- Of all 2006 crashes involving ambulances, 56.9% occurred in an urban area of the State and 43.1% occurred in a rural area.
- Of all ambulance drivers involved in 2006 traffic crashes, 76.9% were male and 23.1% were female. The average age of the ambulance driver was 33.3 years.

**2006 AMBULANCE INVOLVED CRASHES**  
**EMERGENCY RUN STATUS**

	FATAL		PERSONAL INJURY		PROPERTY DAMAGE		TOTAL		%		TOTAL NUMBER <sup>1</sup>		AMBULANCE DRIVERS/PASSENGERS <sup>2</sup>	
		%		%		%		%	KILLED	INJURED	KILLED	INJURED	KILLED	INJURED
AMBULANCE ON RUN	0	0.0	11	40.7	30	27.3	41	29.9	0	17	0	0	0	12
AMBULANCE NOT ON RUN	0	0.0	16	59.3	80	72.7	96	70.1	0	28	0	0	0	16
<b>TOTAL</b>	<b>0</b>	<b>0.0</b>	<b>27</b>	<b>100.0</b>	<b>110</b>	<b>100.0</b>	<b>137</b>	<b>100.0</b>	<b>0</b>	<b>45</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>28</b>

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

<sup>2</sup>This statistic indicates the number of ambulance drivers and passengers killed and injured.

**TABLE 4.0.1**

### 2005 and 2006 AMBULANCE INVOLVED CRASH ANALYSIS

	2005	2006	RATE OF CHANGE
FATAL	1	0	- 100.0
PERSONAL INJURY	23	27	+ 17.4
PROPERTY DAMAGE	106	110	+ 3.8
TOTAL	130	137	+ 5.4

**TABLE 4.0.2**

### 2006 AMBULANCE INVOLVED CRASHES

#### CRASH TYPE BY CRASH SEVERITY

	FATAL	%	PERSONAL INJURY	%	PROPERTY DAMAGE	%	TOTAL	%
ANIMAL	0	0.0	1	3.7	14	12.7	15	11.0
BICYCLIST	0	0.0	0	0.0	0	0.0	0	0.0
FIXED OBJECT	0	0.0	2	7.4	11	10.0	13	9.5
OTHER OBJECT	0	0.0	0	0.0	1	0.9	1	0.7
PEDESTRIAN	0	0.0	0	0.0	0	0.0	0	0.0
TRAIN	0	0.0	0	0.0	0	0.0	0	0.0
VEHICLE IN TRANSPORT	0	0.0	22	81.5	69	62.7	91	66.4
VEHICLE ON OTHER ROADWAY	0	0.0	0	0.0	0	0.0	0	0.0
PARKED VEHICLE	0	0.0	0	0.0	14	12.7	14	10.2
NON-COLLISION OVERTURN	0	0.0	1	3.7	0	0.0	1	0.7
NON-COLLISION OTHER	0	0.0	1	3.7	1	0.9	2	1.5
<b>TOTAL</b>	0	0.0	27	100.0	110	100.0	137	100.0

**TABLE 4.0.3**

**2006 AMBULANCE INVOLVED CRASHES**

**AREA CLASSIFICATION BY CRASH SEVERITY**

	<b>FATAL</b>	<b>%</b>	<b>PERSONAL INJURY</b>	<b>%</b>	<b>PROPERTY DAMAGE</b>	<b>%</b>	<b>TOTAL</b>	<b>%</b>
URBAN	0	0.0	17	63.0	61	55.5	78	56.9
RURAL	0	0.0	10	37.0	49	44.5	59	43.1
<b>TOTAL</b>	<b>0</b>	<b>0.0</b>	<b>27</b>	<b>100.0</b>	<b>110</b>	<b>100.0</b>	<b>137</b>	<b>100.0</b>

**TABLE 4.0.4**

**2006 AMBULANCE INVOLVED CRASHES**

**ROAD CURVATURE BY CRASH SEVERITY**

	<b>FATAL</b>	<b>%</b>	<b>PERSONAL INJURY</b>	<b>%</b>	<b>PROPERTY DAMAGE</b>	<b>%</b>	<b>TOTAL</b>	<b>%</b>
STRAIGHT	0	0.0	23	85.2	90	82.6	113	83.1
CURVE	0	0.0	4	14.8	19	17.4	23	16.9
UNKNOWN	0	-	0	-	1	-	1	-
<b>TOTAL</b>	<b>0</b>	<b>0.0</b>	<b>27</b>	<b>100.0</b>	<b>110</b>	<b>100.0</b>	<b>137</b>	<b>100.0</b>

**TABLE 4.0.5**

**2006 AMBULANCE INVOLVED CRASHES**

**ROAD INCLINE BY CRASH SEVERITY**

	<b>FATAL</b>	<b>%</b>	<b>PERSONAL INJURY</b>	<b>%</b>	<b>PROPERTY DAMAGE</b>	<b>%</b>	<b>TOTAL</b>	<b>%</b>
LEVEL	0	0.0	16	59.3	76	72.4	92	69.7
HILL	0	0.0	8	29.6	25	23.8	33	25.0
CREST	0	0.0	3	11.1	4	3.8	7	5.3
UNKNOWN	0	-	0	-	5	-	5	-
<b>TOTAL</b>	<b>0</b>	<b>0.0</b>	<b>27</b>	<b>100.0</b>	<b>110</b>	<b>100.0</b>	<b>137</b>	<b>100.0</b>

**TABLE 4.0.6**

**2006 AMBULANCE INVOLVED CRASHES  
ROAD CONDITIONS BY CRASH SEVERITY**

	<b>FATAL</b>	<b>%</b>	<b>PERSONAL INJURY</b>	<b>%</b>	<b>PROPERTY DAMAGE</b>	<b>%</b>	<b>TOTAL</b>	<b>%</b>
DRY	0	0.0	23	85.2	92	86.0	115	85.8
WET	0	0.0	4	14.8	11	10.3	15	11.2
SNOW	0	0.0	0	0.0	2	1.9	2	1.5
ICE	0	0.0	0	0.0	2	1.9	2	1.5
SLUSH	0	0.0	0	0.0	0	0.0	0	0.0
MUD	0	0.0	0	0.0	0	0.0	0	0.0
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	-	3	-	3	-
<b>TOTAL</b>	<b>0</b>	<b>0.0</b>	<b>27</b>	<b>100.0</b>	<b>110</b>	<b>100.0</b>	<b>137</b>	<b>100.0</b>

**TABLE 4.0.7**

**2006 AMBULANCE INVOLVED CRASHES  
HIGHWAY CLASSIFICATION BY CRASH SEVERITY**

	<b>FATAL</b>	<b>%</b>	<b>PERSONAL INJURY</b>	<b>%</b>	<b>PROPERTY DAMAGE</b>	<b>%</b>	<b>TOTAL</b>	<b>%</b>
INTERSTATE	0	0.0	2	7.4	8	7.3	10	7.3
U.S. HIGHWAY	0	0.0	1	3.7	11	10.0	12	8.8
STATE NUMBERED	0	0.0	9	33.3	28	25.5	37	27.0
SINGLE STATE LETTERED	0	0.0	0	0.0	5	4.6	5	3.7
DOUBLE STATE LETTERED	0	0.0	2	7.4	2	1.8	4	2.9
OUTER ROAD	0	0.0	0	0.0	2	1.8	2	1.5
COUNTY ROAD	0	0.0	1	3.7	4	3.6	5	3.7
CITY STREET	0	0.0	11	40.7	41	37.3	52	38.0
INTERSTATE LOOP	0	0.0	0	0.0	0	0.0	0	0.0
OTHER <sup>1</sup>	0	0.0	1	3.7	9	8.2	10	7.3
<b>TOTAL</b>	<b>0</b>	<b>0.0</b>	<b>27</b>	<b>100.0</b>	<b>110</b>	<b>100.0</b>	<b>137</b>	<b>100.0</b>

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

**TABLE 4.0.8**

**2006 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	1	5.9	5	8.2	6	7.7	0	0.0	1	10.0	3	6.1	4	6.8
U.S. HIGHWAY	0	0.0	0	0.0	7	11.5	7	9.0	0	0.0	1	10.0	4	8.2	5	8.5
STATE NUMBERED	0	0.0	4	23.5	8	13.1	12	15.4	0	0.0	5	50.0	20	40.8	25	42.4
SINGLE STATE LETTERED	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	10.2	5	8.5
DOUBLE STATE LETTERED	0	0.0	2	11.8	1	1.6	3	3.9	0	0.0	0	0.0	1	2.0	1	1.7
OUTER ROAD	0	0.0	0	0.0	1	1.6	1	1.3	0	0.0	0	0.0	1	2.0	1	1.7
COUNTY ROAD	0	0.0	0	0.0	1	1.6	1	1.3	0	0.0	1	10.0	3	6.1	4	6.8
CITY STREET	0	0.0	10	58.8	31	50.8	41	52.6	0	0.0	1	10.0	10	20.4	11	18.6
INTERSTATE LOOP	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
OTHER <sup>1</sup>	0	0.0	0	0.0	7	11.5	7	9.0	0	0.0	1	10.0	2	4.1	3	5.1
<b>TOTAL</b>	0	0.0	17	100.0	61	100.0	78	100.0	0	0.0	10	100.0	49	100.0	59	100.0

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

**TABLE 4.0.9**

**2006 AMBULANCE INVOLVED CRASHES  
MONTH OF YEAR**

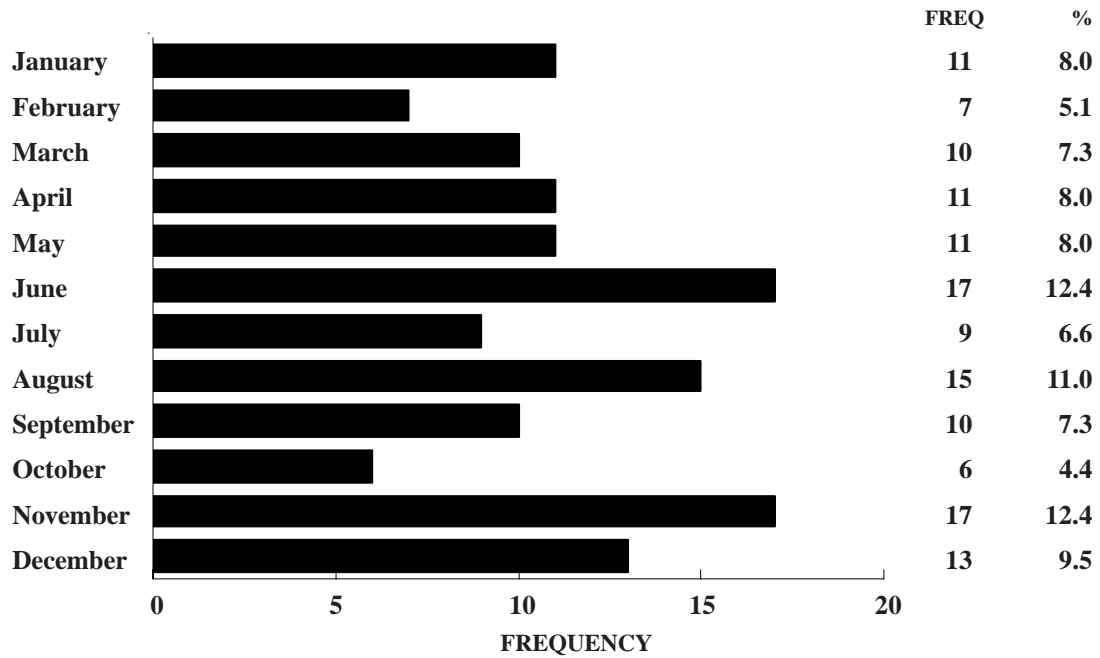


FIGURE 4.0.1

**2006 AMBULANCE INVOLVED CRASHES  
DAY OF WEEK**

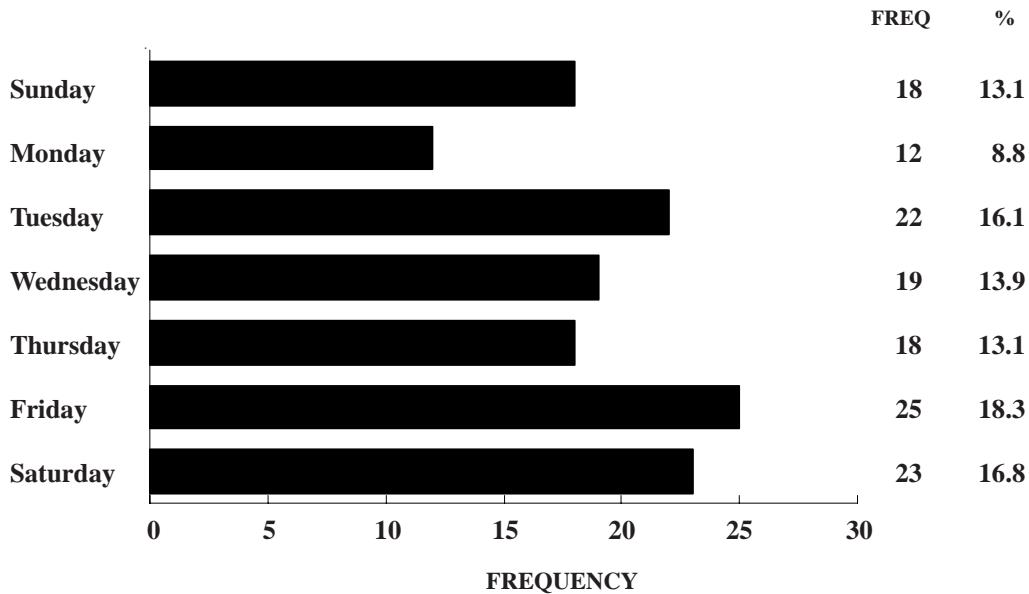
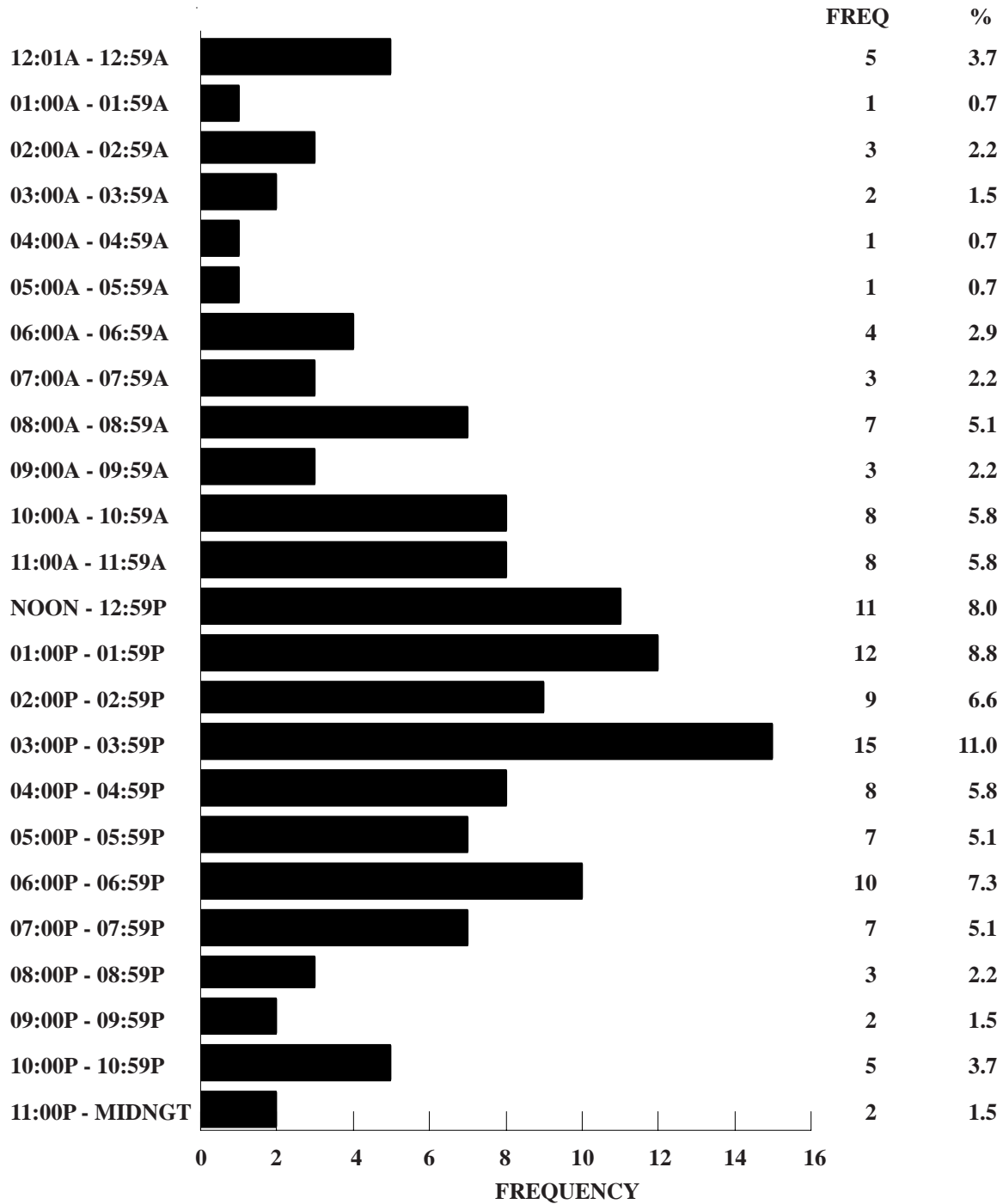


FIGURE 4.0.2

**2006 AMBULANCE INVOLVED CRASHES  
HOUR OF DAY**



**FIGURE 4.0.3**



## 2006 MISSOURI AMBULANCE CRASHES

### TYPE OF CIRCUMSTANCE INVOLVED BY CRASH SEVERITY AND PERSON CLASSIFICATION<sup>1</sup>

FATAL AND PERSONAL INJURY AMBULANCE CRASHES = 27				TOTAL AMBULANCE CRASHES = 137		
	DRIVER OF AMBULANCE/ VEHICLE	OTHER DRIVER/ VEHICLE/ PEDESTRIAN	TOTAL F & PI	DRIVER OF AMBULANCE/ VEHICLE	OTHER DRIVER/ VEHICLE/ PEDESTRIAN	TOTAL CRASHES
VEHICLE DEFECTS	3.7	0.0	3.7	1.5	0.7	2.2
TRAFFIC CONTROL INOPERATIVE / MISSING	0.0	3.7	3.7	0.0	0.7	0.7
IMPROPERLY STOPPED ON ROADWAY	0.0	3.7	3.7	0.0	1.5	1.5
EXCEEDING SPEED LIMIT / TOO FAST FOR CONDITIONS	7.4	7.4	14.8	3.6	4.4	8.0
IMPROPER PASSING	0.0	0.0	0.0	1.5	1.5	2.9
VIOLATION OF STOP SIGN	0.0	3.7	3.7	0.7	2.2	2.9
WRONG SIDE NOT PASSING	0.0	3.7	3.7	0.0	2.9	2.9
FOLLOWING TOO CLOSE	3.7	3.7	7.4	2.9	5.1	8.0
IMPROPER SIGNAL	0.0	0.0	0.0	0.0	0.0	0.0
IMPROPER BACKING	0.0	0.0	0.0	4.4	0.7	5.1
IMPROPER TURN	3.7	3.7	7.4	5.8	0.7	6.5
IMPROPER LANE USAGE / CHANGE	3.7	7.4	11.1	3.6	3.6	7.2
WRONG WAY ONE-WAY STREET	0.0	0.0	0.0	0.0	0.7	0.7
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	0.0	0.0
FAILED TO YIELD	0.0	22.2	22.2	2.2	14.6	16.1
DRINKING	0.0	7.4	7.4	0.0	3.6	3.6
DRUGS	0.0	0.0	0.0	0.0	0.0	0.0
PHYSICAL IMPAIRMENT	3.7	0.0	3.7	0.7	0.7	1.4
INATTENTION	18.5	25.9	37.0	15.3	8.8	21.9

<sup>1</sup>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 2006 Missouri ambulance crashes, it was found that an ambulance driver was speeding in 3.6% of the crashes. In 4.4% of the crashes another driver was speeding. In 8.0% of the crashes either an ambulance driver, another driver, or both drivers were speeding.

**TABLE 4.0.10**

**AMBULANCES INVOLVED IN 2006 MISSOURI CRASHES**

**DRIVER INVOLVEMENT BY CRASH SEVERITY**

	<b>FATAL</b>	<b>%</b>	<b>PERSONAL INJURY</b>	<b>%</b>	<b>PROPERTY DAMAGE</b>	<b>%</b>	<b>TOTAL</b>	<b>%</b>
DRIVERLESS	0	0.0	0	0.0	0	0.0	0	0.0
KNOWN DRIVER INVOLVED	0	0.0	29	100.0	114	100.0	143	100.0
UNKNOWN DRIVER INVOLVED	0	0.0	0	0.0	0	0.0	0	0.0
<b>TOTAL</b>	<b>0</b>	<b>0.0</b>	<b>29</b>	<b>100.0</b>	<b>114</b>	<b>100.0</b>	<b>143</b>	<b>100.0</b>

**TABLE 4.0.11**

**DRIVERS OF AMBULANCES INVOLVED IN 2006 MISSOURI CRASHES**

**SEX OF DRIVER BY CRASH SEVERITY**

	<b>FATAL</b>	<b>%</b>	<b>PERSONAL INJURY</b>	<b>%</b>	<b>PROPERTY DAMAGE</b>	<b>%</b>	<b>TOTAL</b>	<b>%</b>
MALE	0	0.0	18	62.1	92	80.7	110	76.9
FEMALE	0	0.0	11	37.9	22	19.3	33	23.1
UNKNOWN	0	-	0	-	0	-	0	-
<b>TOTAL</b>	<b>0</b>	<b>0.0</b>	<b>29</b>	<b>100.0</b>	<b>114</b>	<b>100.0</b>	<b>143</b>	<b>100.0</b>

**TABLE 4.0.12**

**DRIVERS OF AMBULANCES INVOLVED IN 2006 MISSOURI CRASHES**

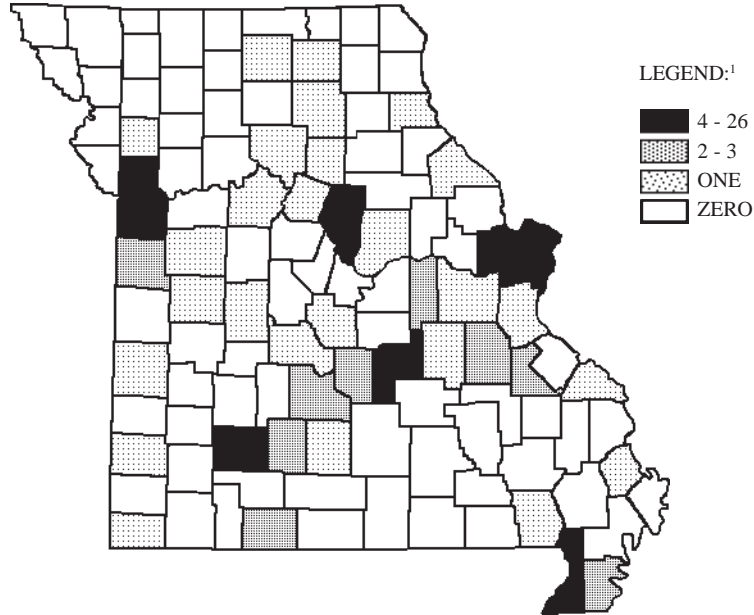
**AGE OF DRIVER BY CRASH SEVERITY**

	<b>FATAL</b>	<b>%</b>	<b>PERSONAL INJURY</b>	<b>%</b>	<b>PROPERTY DAMAGE</b>	<b>%</b>	<b>TOTAL</b>	<b>%</b>
<b>AVERAGE AGE OF DRIVER</b>	0.0	-	35.9	-	32.7	-	33.3	-
14 YEARS AND UNDER	0	0.0	0	0.0	0	0.0	0	0.0
15 - 20 YEARS	0	0.0	2	6.9	6	5.3	8	5.6
21 - 25 YEARS	0	0.0	8	27.6	25	21.9	33	23.1
26 - 30 YEARS	0	0.0	4	13.8	18	15.8	22	15.4
31 - 35 YEARS	0	0.0	4	13.8	23	20.2	27	18.9
36 - 40 YEARS	0	0.0	3	10.3	21	18.4	24	16.8
41 - 45 YEARS	0	0.0	2	6.9	13	11.4	15	10.5
46 - 50 YEARS	0	0.0	0	0.0	2	1.8	2	1.4
51 - 55 YEARS	0	0.0	3	10.3	2	1.8	5	3.5
56 - 60 YEARS	0	0.0	1	3.5	3	2.6	4	2.8
61 - 65 YEARS	0	0.0	0	0.0	0	0.0	0	0.0
66 YEARS AND OVER	0	0.0	2	6.9	1	0.9	3	2.1
UNKNOWN	0	-	0	-	0	-	0	-
<b>TOTAL</b>	0	0.0	29	100.0	114	100.0	143	100.0

**TABLE 4.0.13**

## 2006 AMBULANCE INVOLVED CRASHES

### COUNTY QUARTILE ANALYSIS



<sup>1</sup> LEGEND CATEGORIES ARE BASED ON QUARTILES OF COUNTIES.

RANK	COUNTY	FREQUENCY	PERCENT	RANK	COUNTY	FREQUENCY	PERCENT
1.0	ST. LOUIS	26	19.0	16.0	TANEY	2	1.5
2.0	ST. LOUIS CITY	17	12.4	-----			
3.0	JACKSON	14	10.2	Second Quartile			
4.0	BOONE	7	5.1	-----			
5.0	GREENE	6	4.4	Third Quartile			
7.0	CLAY	5	3.6	31.5	ADAIR	1	0.7
7.0	DUNKLIN	5	3.6	31.5	BENTON	1	0.7
7.0	ST. CHARLES	5	3.6	31.5	BUTLER	1	0.7
9.0	PHELPS	4	2.9	31.5	CALLAWAY	1	0.7
-----				31.5	CAMDEN	1	0.7
First Quartile				31.5	CHARITON	1	0.7
-----				31.5	CLINTON	1	0.7
Second Quartile				31.5	CRAWFORD	1	0.7
11.5	CASS	3	2.2	31.5	FRANKLIN	1	0.7
11.5	PULASKI	3	2.2	31.5	HENRY	1	0.7
11.5	WASHINGTON	3	2.2	31.5	HOWARD	1	0.7
11.5	WEBSTER	3	2.2	31.5	JASPER	1	0.7
16.0	GASCONADE	2	1.5	31.5	JEFFERSON	1	0.7
16.0	LACLEDE	2	1.5	31.5	JOHNSON	1	0.7
16.0	PEMISCOT	2	1.5	31.5	MC DONALD	1	0.7
16.0	ST. FRANCOIS	2	1.5	31.5	MACON	1	0.7

RANK	COUNTY	FREQUENCY	PERCENT	RANK	COUNTY	FREQUENCY	PERCENT
31.5	MARION	1	0.7	80.0	IRON	0	0.0
31.5	MILLER	1	0.7	80.0	KNOX	0	0.0
31.5	PERRY	1	0.7	80.0	LAFAYETTE	0	0.0
31.5	PIKE	1	0.7	80.0	LAWRENCE	0	0.0
31.5	RANDOLPH	1	0.7	80.0	LEWIS	0	0.0
31.5	SALINE	1	0.7	80.0	LINCOLN	0	0.0
31.5	SCOTT	1	0.7	80.0	LINN	0	0.0
31.5	SULLIVAN	1	0.7	80.0	LIVINGSTON	0	0.0
31.5	VERNON	1	0.7	80.0	MADISON	0	0.0
31.5	WRIGHT	1	0.7	80.0	MARIES	0	0.0
Third Quartile				80.0	MERCER	0	0.0
Fourth Quartile				80.0	MISSISSIPPI	0	0.0
80.0	ANDREW	0	0.0	80.0	MONITEAU	0	0.0
80.0	ATCHISON	0	0.0	80.0	MONROE	0	0.0
80.0	AUDRAIN	0	0.0	80.0	MONTGOMERY	0	0.0
80.0	BARRY	0	0.0	80.0	MORGAN	0	0.0
80.0	BARTON	0	0.0	80.0	NEW MADRID	0	0.0
80.0	BATES	0	0.0	80.0	NEWTON	0	0.0
80.0	BOLLINGER	0	0.0	80.0	NODAWAY	0	0.0
80.0	BUCHANAN	0	0.0	80.0	OREGON	0	0.0
80.0	CALDWELL	0	0.0	80.0	OSAGE	0	0.0
80.0	CAPE GIRARDEAU	0	0.0	80.0	OZARK	0	0.0
80.0	CARROLL	0	0.0	80.0	PETTIS	0	0.0
80.0	CARTER	0	0.0	80.0	PLATTE	0	0.0
80.0	CEDAR	0	0.0	80.0	POLK	0	0.0
80.0	CHRISTIAN	0	0.0	80.0	PUTNAM	0	0.0
80.0	CLARK	0	0.0	80.0	RALLS	0	0.0
80.0	COLE	0	0.0	80.0	RAY	0	0.0
80.0	COOPER	0	0.0	80.0	REYNOLDS	0	0.0
80.0	DADE	0	0.0	80.0	RIPLEY	0	0.0
80.0	DALLAS	0	0.0	80.0	ST. CLAIR	0	0.0
80.0	DAVISS	0	0.0	80.0	STE. GENEVIEVE	0	0.0
80.0	DE KALB	0	0.0	80.0	SCHUYLER	0	0.0
80.0	DENT	0	0.0	80.0	SCOTLAND	0	0.0
80.0	DOUGLAS	0	0.0	80.0	SHANNON	0	0.0
80.0	GENTRY	0	0.0	80.0	SHELBY	0	0.0
80.0	GRUNDY	0	0.0	80.0	STODDARD	0	0.0
80.0	HARRISON	0	0.0	80.0	STONE	0	0.0
80.0	HICKORY	0	0.0	80.0	TEXAS	0	0.0
80.0	HOLT	0	0.0	80.0	WARREN	0	0.0
80.0	HOWELL	0	0.0	80.0	WAYNE	0	0.0
				80.0	WORTH	0	0.0

TABLE 4.0.14

## GLOSSARY

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

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

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

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

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

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

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

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

**RATE OF CHANGE:** The formula is:

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

**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.