2002 SOUTH CAROLINA

COMMERCIAL MOTOR VEHICLE TRAFFIC COLLISION FACT BOOK

This publication was produced by the South Carolina Department of Public Safety's Office of Highway Safety Statistical Analysis Section, with support from the South Carolina State Transport Police.

South Carolina Department of Public Safety

Office of the Director

The South Carolina Department of Public Safety is proud to present the fourth edition of the South Carolina Commercial Motor Vehicle Traffic Collision Fact Book. This 2002 edition covers a wide range of information on traffic collisions involving commercial motor vehicles. This publication should serve as a valuable tool for law enforcement, legislators, traffic safety advocates, industry leaders, and others striving to improve highway safety.

Over the past two decades, the number and volume of commercial motor vehicles using South Carolina's highways has increased substantially. Freight transportation in the United States is predominantly interstate and trucking is the dominant freight mode. This growth in the industry occurred while there was only a limited expansion of South Carolina's highway network.

The challenge, then, is for government, industry, and the general public, to join together to emphasize the need to safely share the road in South Carolina. We are embarking on public/private ventures with leaders in the trucking and bus industry and our federal partners to raise awareness of the issues arising from increased commercial motor vehicle traffic. This fact book is one step in those efforts. The information contained within this book should assist with the current driving conditions found on our roads.

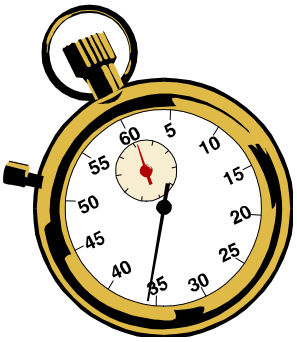
Only working together can we improve the safety of South Carolina's highways and, more importantly, save lives.

Sincerely,

B. Boykin Rose
Director

5400 Broad River Road, Columbia, SC 29212-3540

SOUTH CAROLINA CMV CRASH STATISTICS CLOCK 2002



1 CMV traffic crash every **2.8** hours

1 injury or fatal crash every **5.7** hours

1 property damage crash every **5.5** hours

1 person killed every **3.1** days

1 person injured every **3.5** hours

CMV TRAFFIC COLLISION QUICK FACTS

	2001	2002	% CHANGE
FATAL COLLISIONS	103	99	-3.9%
INJURY COLLISIONS	1,093	1,431	30.9%
PROPERTY DAMAGE ONLY COLLISIONS	1,068	1,583	48.2%
TOTAL COLLISIONS	2,264	3,113	37.5%
FATALITIES	115	119	3.5%
NON-FATAL INJURIES	2,050	2,509	22.4%
ECONOMIC LOSS	$159,641,900	$173,516,000	8.7%
TRUCK VEHICLE MILES TRAVELED	4,200,000,000	4,600,000,000	9.5%
ROADWAY MILES	66,168	66,195	0.0%
TRUCK MILEAGE DEATH RATE*	2.7	2.6	-3.7%

*Mileage Death Rate (MDR) is the number of fatalities in CMV collisions per 100 million Large Truck Vehicle Miles Traveled (VMT). Truck VMT is estimated by South Carolina Department of Transportation (SCDOT).

This is a photo of a collision that occurred on a foggy morning in Lancaster county.

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For the purposes of this publication, a collision is defined as a Commercial Motor Vehicle (CMV) collision only if it meets the definition set forth by SAFETYNET. SAFETYNET is a computer software program in which states upload uniform crash data elements of CMV collisions to a national database maintained by the Federal Motor Carrier Safety Administration. The following is the SAFETYNET definition of a CMV collision:

A CMV collision is a reportable collision[1] that involved at least one of the following vehicles:

1. **A vehicle whose Gross Vehicle Weight Rating of the power unit equals 10,001 pounds or greater OR**
2. **A vehicle displaying a hazardous material placard OR**
3. **A passenger vehicle that is designed to carry, or is carrying, 16 or more persons, including the driver.**
4. **A motor vehicle that is designed to carry, or is carrying, 9 or more passengers for compensation.**

AND…

1. **Involves one or more fatal injuries OR**
2. **At least one person is transported for immediate medical care OR**
3. **One or more vehicles (not necessarily the CMV) are towed from the scene due to disabling damage.**

[1] A collision that results in at least $1,000 in total property damage, or results in injury or death, and occurs on a public roadway.

NOTE: As of January 2001, the SAFETYNET criteria for a qualifying vehicle changed to the definitions given above. Therefore, the criteria of a qualifying vehicle differ from those of previous years.

KEY DEFINITIONS

Bus - A motor vehicle designed to transport sixteen (16) or more persons, including the driver.

Collision - Throughout this publication the terms collision and traffic collision are equivalent to the term motor vehicle traffic collision as defined below.

CMV – Commercial Motor Vehicle: A vehicle whose GVWR of the power unit equals 10,001 pounds or greater OR A vehicle displaying a hazardous material placard OR A passenger vehicle that is designed to carry 16 or more persons, including the driver OR A motor vehicle that is designed to carry 9 or more passengers for compensation.

CMV Collisions - A collision involving a CMV in which there are fatal injuries OR persons transported for medical care OR a vehicle is towed from the scene due to disabling damage or is provided assistance.

Disabling Damage – Damage which precludes departure of a motor vehicle from the scene of the collision in its usual manner in daylight after simple repairs.

1. Inclusions: Damage to motor vehicles that could have been driven, but would have been further damaged if so driven.
2. Exclusions:
   i. Damage that can be remedied temporarily at the scene of the collision without special tools or parts.
   ii. Tire disablement without other damage even if no spare tire is available.
   iii. Headlamp or taillight damage.
   iv. Damage to turn signals, horn, or windshield wipers that make them inoperative.

Driver – An occupant who is in actual physical control of a transport vehicle, or for an out-of-control vehicle, an occupant who was in control until control was lost.

Economic Loss - All figures reported are rounded to the nearest $100. Based on the 2001 National Safety Council's Formula which applies with the following factors:

Each fatality	$1,040,000
Each incapacitating injury	$ 49,500
Each non-incapacitating injury	$ 16,500
Each possible injury	$ 9,400
Each *PDO accident	$ 6,500

Fatal Traffic Collision - Any traffic collision that results in the death of at least one occupant or pedestrian as a direct result of injuries sustained in the collision within 30 days of the collision date.

First Harmful Event - The first event in a traffic collision to result in injury or property damage.

Hazardous Material – A substance or material which has been determined by the Secretary of Transportation to be capable of posing an unreasonable risk to health, safety and property when transported in commerce and which has been so designated.

HP – Highway Patrol.

Incapacitating Injury - Any injury, other than a fatal injury, which prevents the injured person from walking, driving or normally continuing the activities he/she was capable of performing before the injury occurred.

Manner of Collision - The identification in a crash of how the motor vehicle(s) initially came together in a traffic collision.

*PDO = Property Damage Only

KEY DEFINITIONS

Motor Vehicle - Any motorized (mechanically or electrically powered) road vehicle not operated on rails, excluding mopeds, minibikes and other vehicles not subject to motor vehicle licensing regulations. These include: automobiles, trucks, buses, vans and motorcycles.

Most Harmful Event - The event for an individual unit involved in a traffic collision that results in the most severe injury or property damage.

Motor Vehicle Traffic Collision - A transport collision that involves at least one motor vehicle in transport, in which the unstabilized situation originates on a trafficway or at least one harmful event occurs on a trafficway. This definition excludes any collision on a private way.

Non-Incapacitating Injury - Any injury, other than a fatal injury or incapacitating injury, which is evident to observers at the scene of the collision in which the injury occurred.

Occupant - Any person who is part of a transport vehicle (automobile, bicycle, etc.)

Passenger - Any occupant of a vehicle other than its driver.

PDO - An abbreviation for property damage only. A PDO collision is one with some property damage but no injuries or fatalities.

Pedestrian - Any person who is not an occupant as defined above. Includes persons on foot, roller skates, and skateboards.

Possible Injury - Any injury that is reported or claimed which is not a fatal injury, incapacitating injury or non-incapacitating injury.

Primary Contributing Factor - Refers to the primary contributing factor of the traffic collision. This is the presumptive factor that created the collision situation.

Road - The part of a trafficway that includes both the roadway and any shoulder alongside the roadway.

Rural Area - Any area which is not within a defined urban area.

STP- State Transport Police.

Traffic Collision - Used in this publication interchangeably with Motor Vehicle Traffic Collision.

Traffic Unit (Unit) - Any motorized road vehicle (includes vehicles that do and do not qualify as motor vehicles in the above definition), pedestrians, animal drawn vehicle and animals with human riders.

Trafficway - Any land way open to the public as a matter of right or custom for moving persons or property from one place to another.

Unit - Used interchangeably with traffic unit (see definition above).

Source for most definitions: Manual on Classifications of Motor Vehicle Traffic Collisions, Fifth Edition, published by the National Safety Council. The definition for disabling damage comes from the Federal Motor Carrier Safety Regulations Handbook.

Part I - General Information

The following pages contain descriptive statistics regarding collisions involving commercial motor vehicles (CMV's) in South Carolina for the year 2002. This includes applicable information regarding drivers, occupants, vehicles, and any other information necessary to obtain a better assessment of the safety of our roadways.

The number of CMV involved collisions has increased from 2,264 in 2001 to 3,113 in 2002. This equates to a 38% increase over this time period. Accompanying these collisions are immense personal and financial losses. While CMV collisions only accounted for 3% of the total collisions in South Carolina in 2002, they made up 11% of the total fatalities on our roadways. Total fatalities in CMV involved collisions have increased from 115 in 2001 to 119 in 2002, a 3.5% increase.

Fatalities are the most severe consequence of motor vehicle collisions, but even in non-fatal collisions, the cost in human suffering can be severe. Injuries sustained in CMV involved collisions have increased from 2,050 in 2001 to 2,509 in 2002, a 22.4% increase.

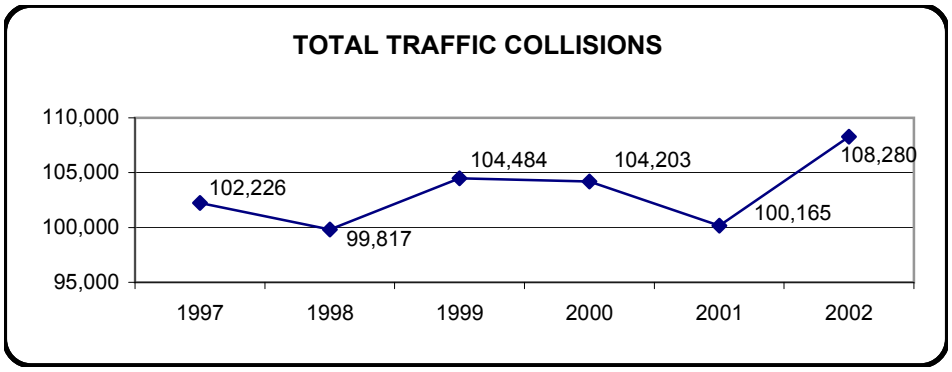
CMV involved collisions are responsible for hundreds of millions of dollars in economic losses to South Carolina each year. Economic losses as estimated in this publication include property damage, medical costs and lost productivity, but do not include intangible costs such as grief and suffering. In 2002, $174 million dollars in estimated losses were incurred in CMV collisions. This means that CMV collisions made up 7.4% of the total economic loss that occurred on South Carolina roadways in 2002.

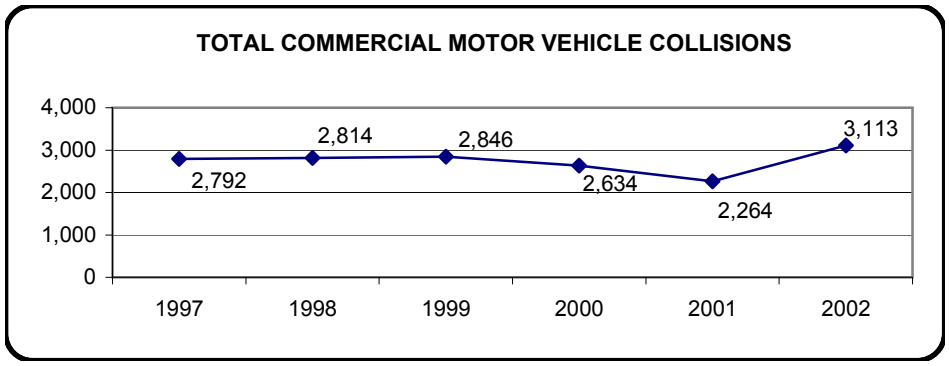
All collision statistics included in this publication are based on data obtained via the Uniform Traffic Collision Report (Form TR-310) and the Supplemental Bus and Truck Collision Report from investigating officers. By law, any collision that results in at least $1,000 in total property damage, or results in injury or death and occurs on a public highway must be reported to the South Carolina Department of Public Safety on the appropriate form. If these collisions occur on private property or are reported on any form other than the TR-310, they are excluded. In order for a vehicle to be defined as a "Commercial Motor Vehicle" it must meet the SAFETYNET threshold explained on page 1. **Only collisions involving at least one CMV are included in this publication, unless otherwise noted.**

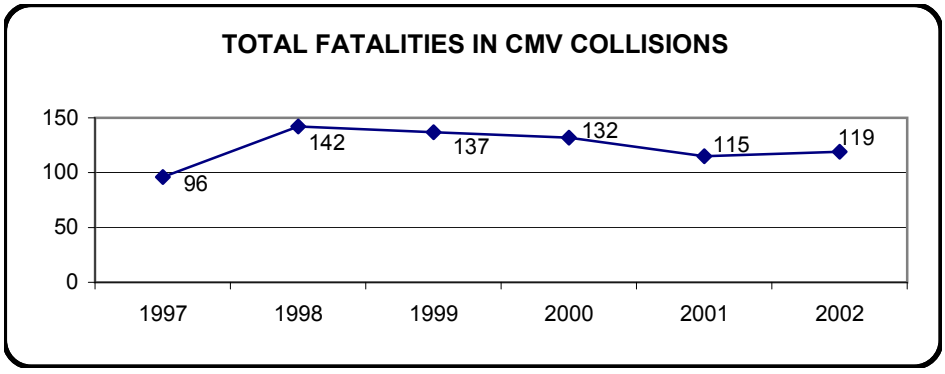
The statistics contained in the South Carolina Commercial Vehicle Traffic Collision Fact Book are based on the latest available information at the time that they were compiled. Due to the complex nature of the data, occasionally new information is received after the publication cut-off date. It is therefore possible that some discrepancies may exist between the data published here and other sources.

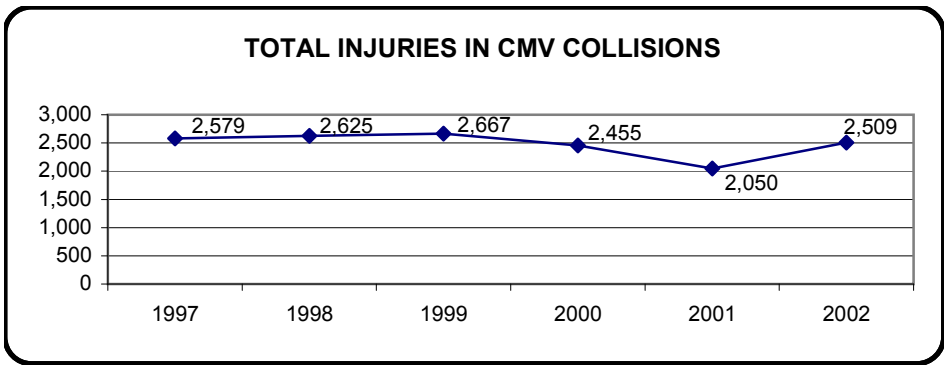
Note: More data is being captured due to edit checks implemented in the data entry process in 2002.

TRAFFIC TRENDS 1997 - 2002

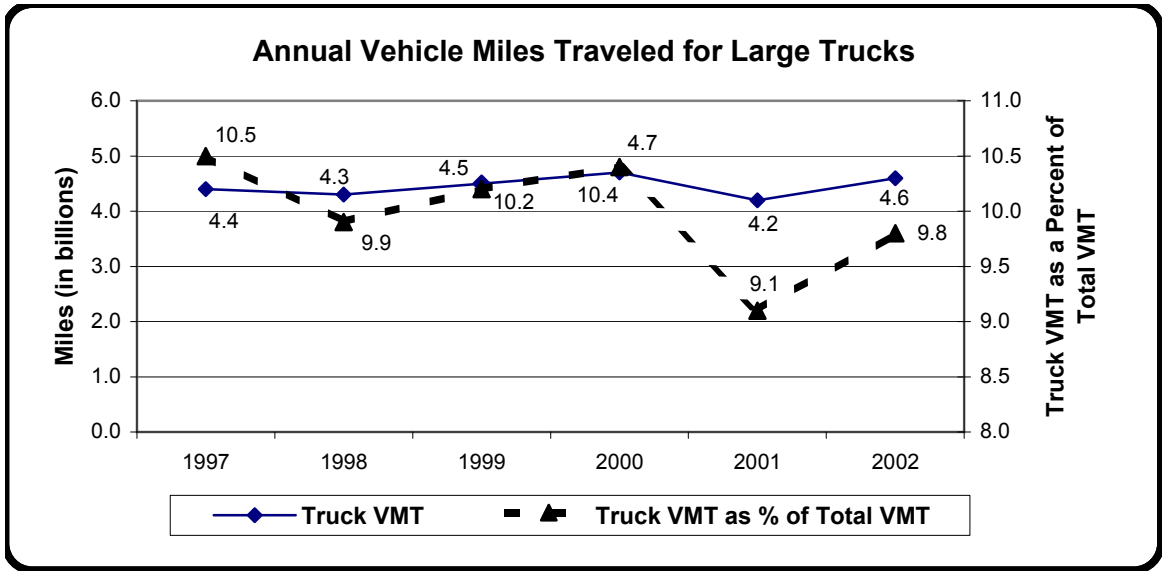






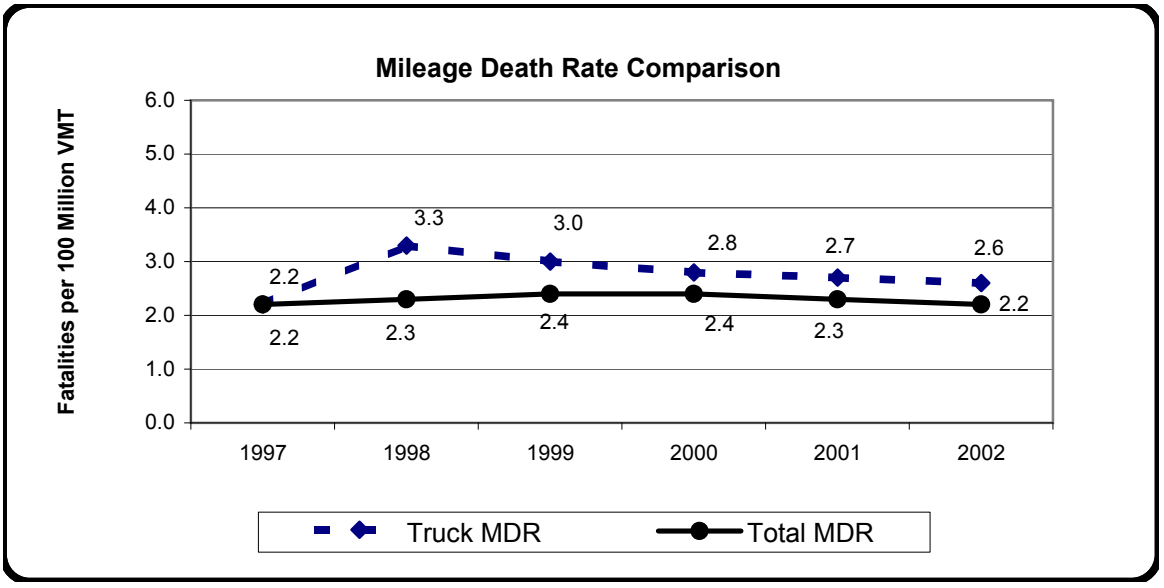


VEHICLE MILES TRAVELED (VMT)



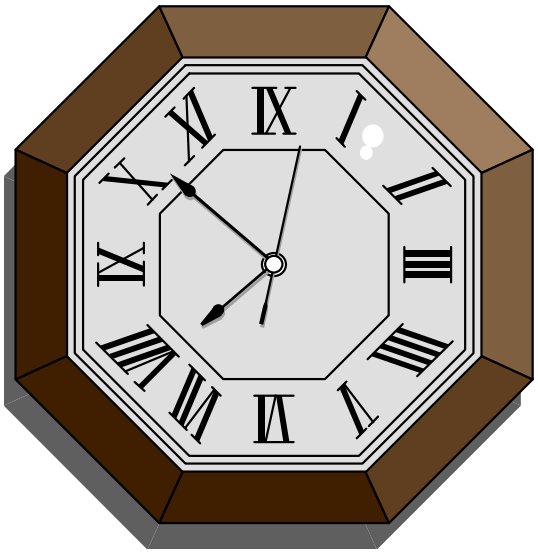
Mileage Death Rate (MDR) is the number of fatalities per 100 million Vehicle Mile Traveled (VMT) "Total MDR" is the MDR for all motor vehicles. "Truck MDR" is the MDR for trucks. Truck Vehicle Miles Traveled (VMT) is estimated by the South Carolina Department of Transportation.* Truck MDR is computed using fatalities in CMV collisions and VMT for trucks. Truck MDR is computed using fatalities in CMV collisions and VMT for trucks.

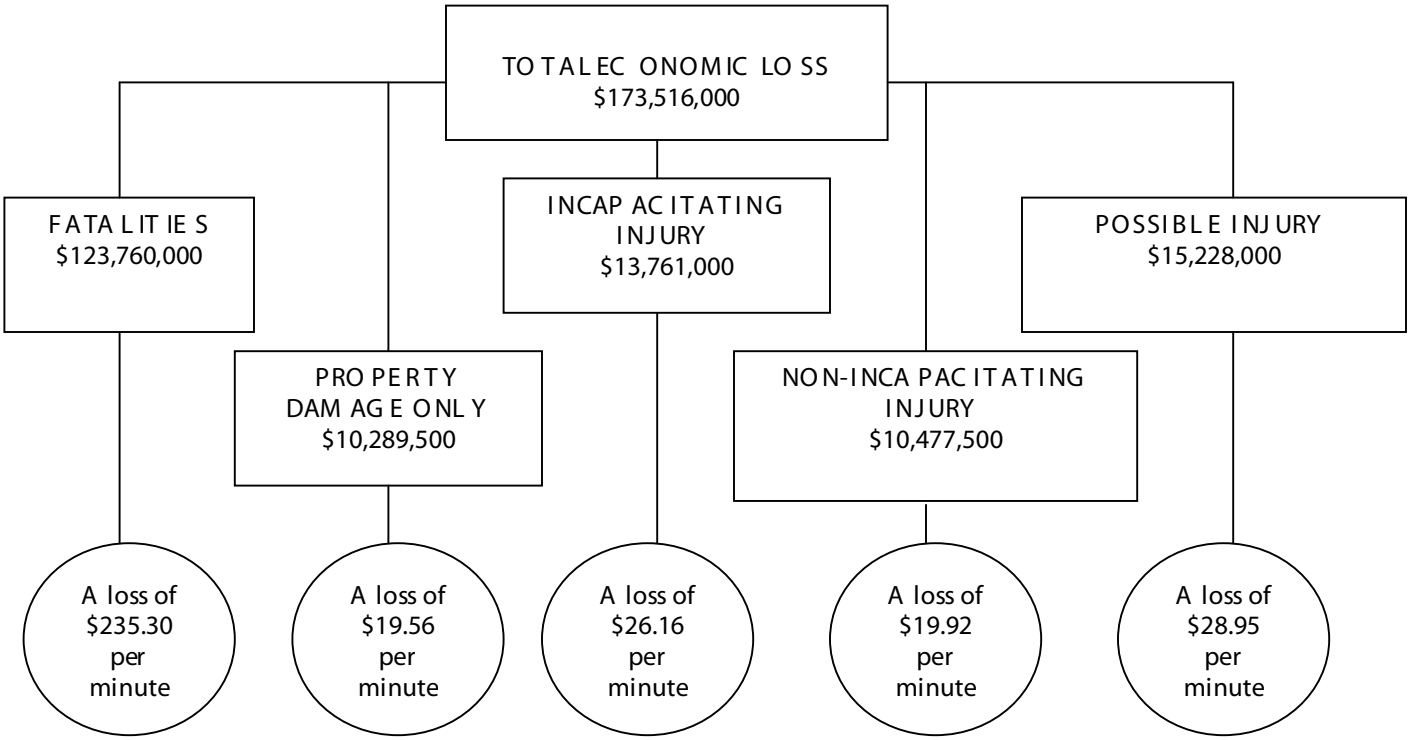
MILEAGE DEATH RATE (MDR)



* Source: South Carolina Department of Transportation estimates Truck VMT.

SOUTH CAROLINA CMV ECONOMIC LOSS STATISTICAL CLOCK 2002





PRIMARY CONTRIBUTING FACTOR

(Pages 8-9)

Some action (or inaction) by one or more of the drivers was cited as the Primary Contributing Factor in 2,840 of the 3,113 reported CMV traffic collisions in 2002. This accounted for 91.2% of all primary contributing factors of crashes. "Too fast for conditions" was the greatest of these, accounting for 27.9% of collisions. Vehicle factors accounted for the next largest category of collision causes with 155 or 5% of the total. "Tires/Wheels", "Brakes", and "Cargo" were the contributing factors in which most of the collisions in this category were attributed to. CMV's seem to have a greater propensity to have vehicle malfunctions as collision factors than do passenger vehicles. In two vehicle collisions between a CMV and a Non-CMV, 33 collisions in which the CMV was the sole contributor to the crash had vehicle related causes, compared to 14 crashes where the Non-CMV vehicle was the only contributor. For fatal collisions in 2002, some type of driver error was considered the probable cause in 84 of the 99 collisions, accounting for 84.8% of all collisions in which someone was killed. This percentage is slightly lower than the percentage for all South Carolina traffic collisions (88.4% driver error).

When dealing with these collisions, it becomes necessary to know which vehicle caused the collision. In two vehicle collisions between a CMV and a Non-CMV, the Non-CMV was the only contributor to the crashes in 1,028 of 2,087 collisions, or 49% of the time. The CMV was the only contributor in 930 of 2,087 collisions, or 44.6% of the time. Non-CMV's were the only contributor in 73% of all fatal crashes and 46.9% of injury collisions. CMV's were the only contributor in 15.5% of fatal collisions and 47.4% of injury collisions.

FIRST HARMFUL EVENT

(Pages 10-11)

The first harmful event (FHE) in a traffic collision is defined by the National Safety Council as the first occurrence of injury or damage in a collision. In 2002, the FHE in 2,104 of the 3,113 reported CMV traffic collisions (67.6%) involved some type of collision where the FHE was a collision with a motor vehicle in transport. The second most common FHE was "Overturn" accounting for 209 of 3,113 crashes, or 6.7% of the total. The third FHE was a collision with a stopped vehicle with 184 collisions (5.9%). Combined, these three accounted for more than 80% of all reported CMV collisions.

Collisions with a motor vehicle in transport (80.8%) and collisions with a stopped vehicle (5%) were the top two FHE's in fatal crashes. Overturns/rollovers and collisions with a tree tied for the third highest FHE in fatal crashes (4%), followed by collisions with a pedestrian (2%).

MANNER OF COLLISION

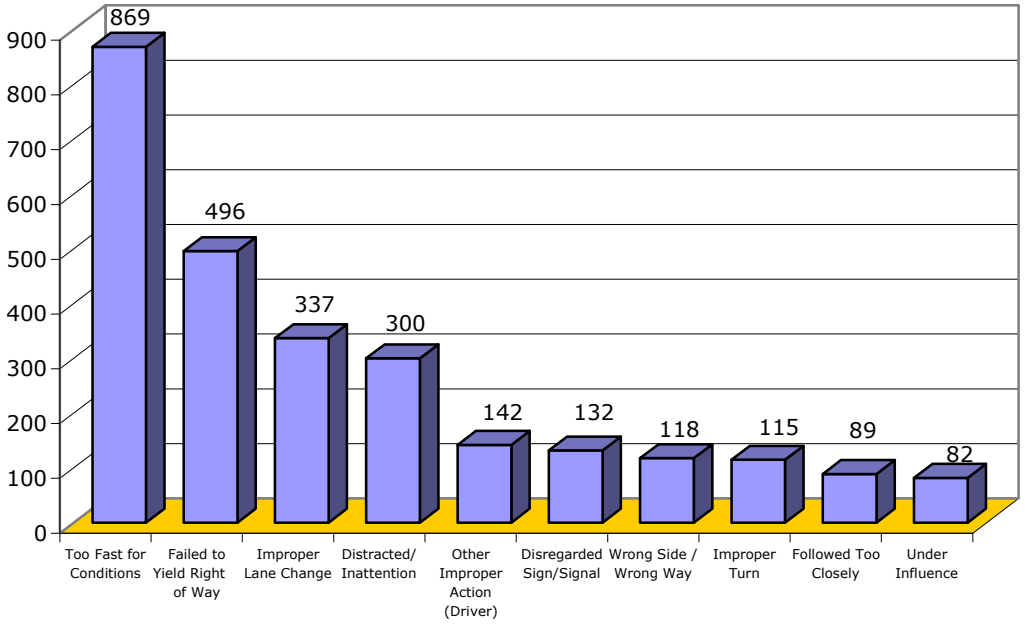
(Page 12)

The manner of collision (MOC) should refer to the vehicle that was struck in a collision. It is how the vehicle was impacted in the first harmful event of the collision. If the first harmful event does not involve two or more motor vehicles in transport, then the manner of collision is not applicable. If, for example, the first harmful event in a traffic collision involves a motor vehicle colliding with a train, the manner of collision should be "not collision with motor vehicle in transport" since a train is not classified as a motor vehicle.

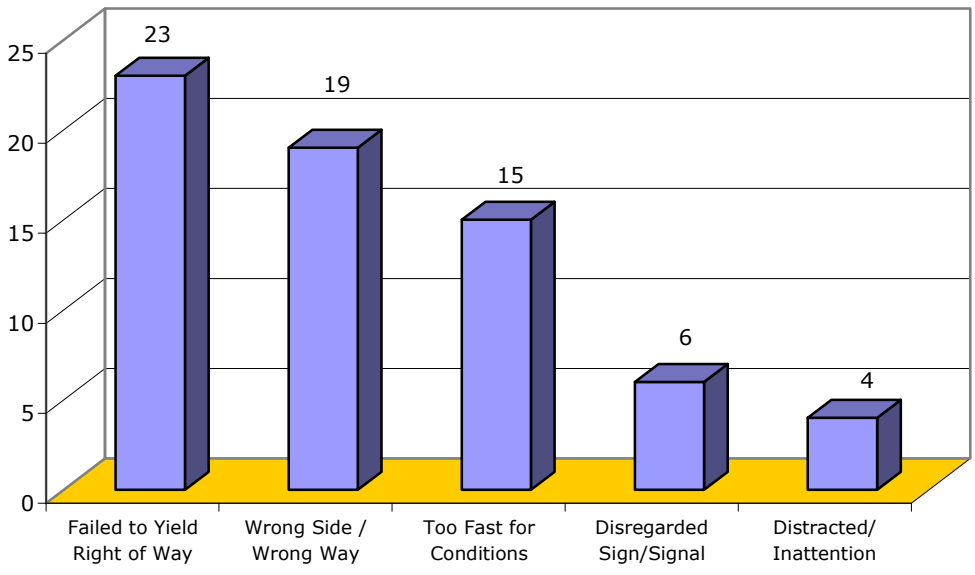
In 2002, the leading manner of collision for all CMV crashes was "not collision with motor vehicle in transport", accounting for 20% of all reported CMV crashes during the year. Angle collisions and rear end collisions followed this. More than one fourth of the fatal collisions were angle collisions, followed by head on collisions (13%).

Head-on CMV collisions are, by far, the most devastating, with 18% of these crashes resulting in fatalities. Distant second to head-on collisions, "sideswipe in the opposite direction" collisions result in a sufficient rate of fatalities (6%).

TOP TEN PRIMARY CONTRIBUTING FACTORS FOR ALL CMV COLLISIONS



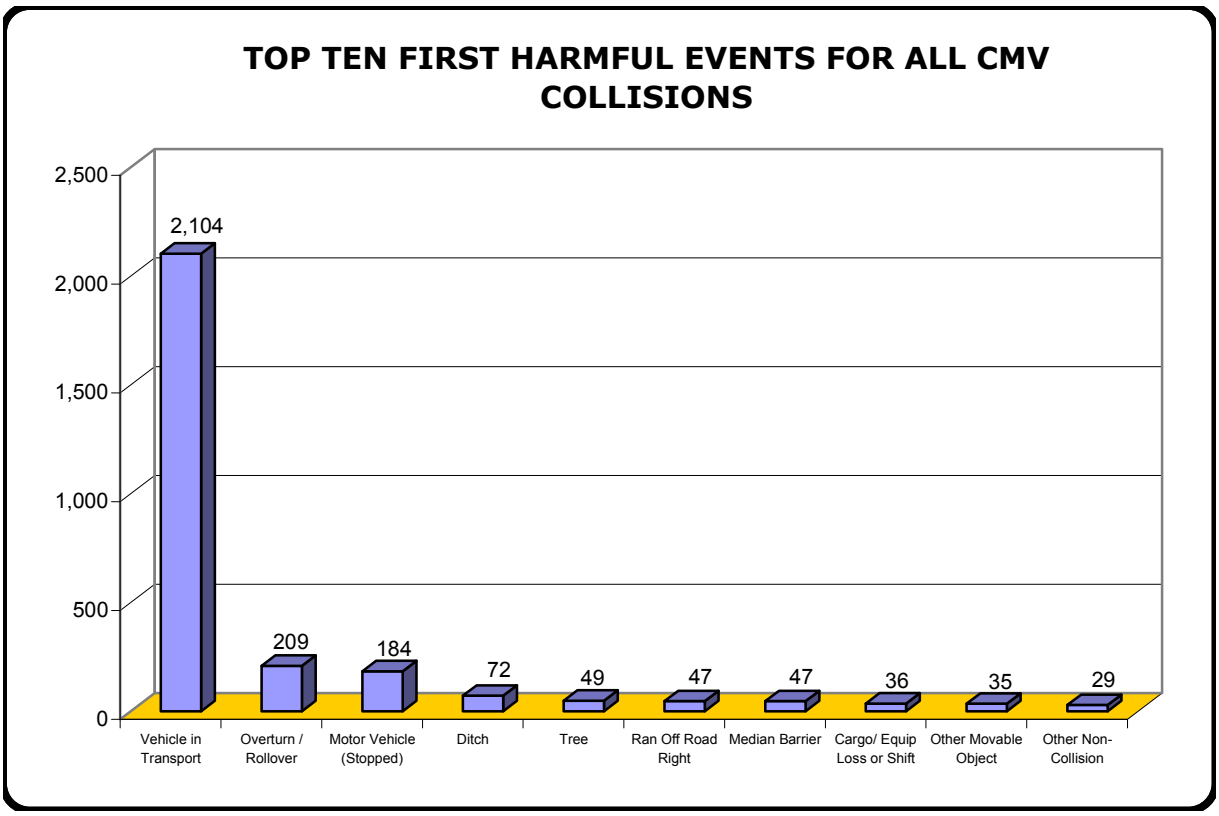
TOP FIVE PRIMARY CONTRIBUTING FACTORS FOR FATAL CMV COLLISIONS

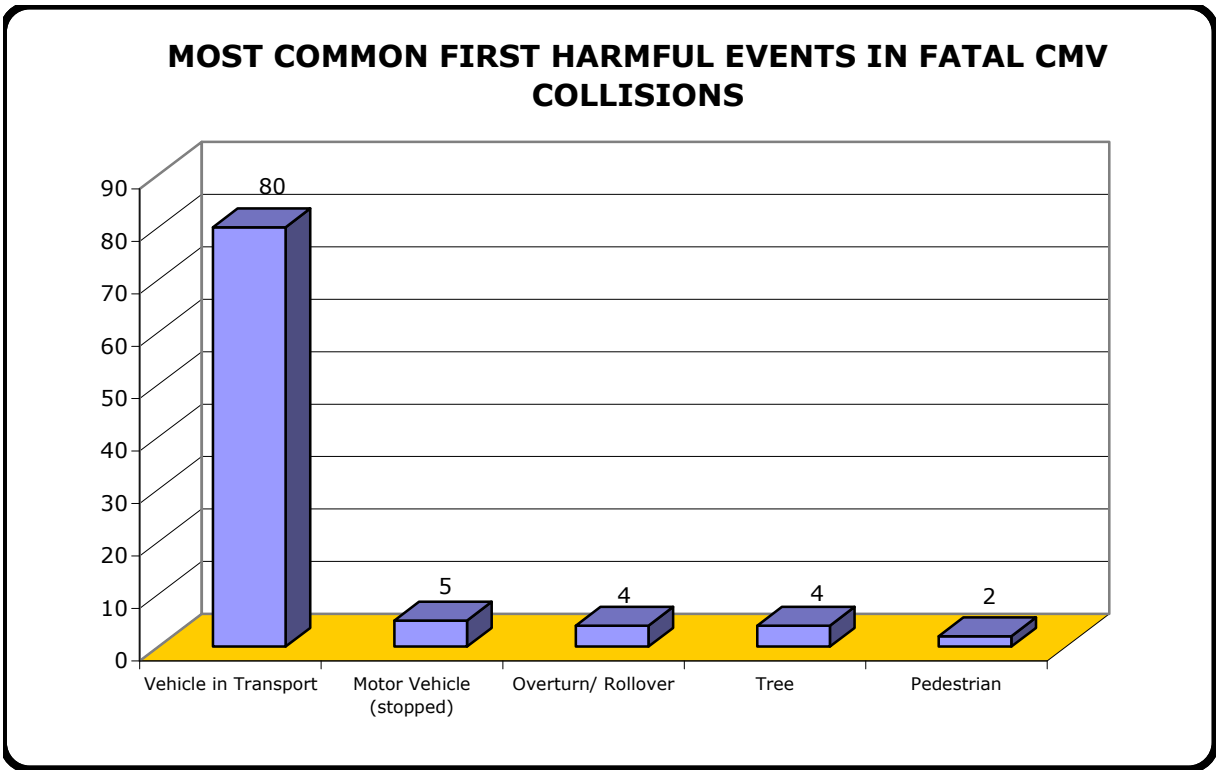


TRAFFIC COLLISIONS BY PRIMARY CONTRIBUTING FACTORS

PRIMARY CONTRIBUTING FACTORS	COLLISION TYPE				PERSONS	
	Fatal	Injury	PDO*	Total	Killed	Injured
DRIVER FACTORS						
Disregarded Signs/Signals	6	75	51	132	11	161
Distracted/Inattention	4	115	106	225	5	206
Too Fast for Conditions	15	386	468	869	21	662
Exceeded Speed Limit	4	11	7	22	4	16
Failed to Yield Right-of-Way	23	256	217	496	26	493
Ran Off Road	2	19	25	46	2	20
Fatiqued/Asleep	3	20	16	39	4	53
Followed Too Closely	0	55	34	89	0	99
Improper Turn	0	46	69	115	0	66
Medical Related	0	10	6	16	0	14
Aggressive Driving	1	4	7	12	1	13
Over-correcting/Over-steering	0	4	5	9	0	5
Swerving to Avoiding Object	1	7	6	14	1	15
Wrong Side or Wrong Way	19	69	30	118	21	148
Under the Influence	3	44	35	82	3	67
Improper Lane Usage/Change	3	132	202	337	3	193
Vision Obscured (within unit)	0	0	3	3	0	0
Other Improper Action (Driver)	0	45	97	142	0	67
Unknown	2	34	38	74	3	61
SUBTOTAL	**86**	**1,332**	**1,422**	**2,840**	**105**	**2,359**
ROADWAY FACTORS						
Debris	0	5	12	17	0	13
Non-Highway Work	0	0	0	0	0	0
Obstruction In Road	1	4	6	11	1	4
Road Surface Condition (i.e., Wet)	0	1	4	5	0	1
Rut, Holes, Bumps	0	0	1	1	0	0
Shoulders (None, Low, Soft, High)	0	2	2	4	0	2
Traffic Control Device (i.e., Missing)	0	1	1	2	0	3
Work Zone (Constr./Maint./Utility)	0	1	1	2	0	1
Worn Travel-Polished Surface	0	0	0	0	0	0
Curve in Roadway	0	0	0	0	0	0
Other	0	4	5	9	0	6
Unknown	0	0	0	0	0	0
SUBTOTAL	**1**	**18**	**32**	**51**	**1**	**30**
NON-MOTORIST FACTORS						
Inattentive	2	2	0	4	2	2
Lying and/or Illegally in Roadway	1	3	0	4	1	3
Not Visible (Dark Clothing)	0	1	0	1	0	1
Darting	1	2	0	3	1	2
Wrong Side of Road	1	0	0	1	1	0
Improper Crossing	0	0	0	0	0	0
Failure To Yield Right of Way	0	0	0	0	0	0
Disregarded Sign/Signal	0	0	0	0	0	0
Under Influence	0	0	0	0	0	0
Other	0	2	3	5	0	2
Unknown	0	0	1	1	0	0
SUBTOTAL	**5**	**10**	**4**	**19**	**5**	**10**
ENVIRONMENTAL FACTORS						
Animal in Road	0	8	7	15	0	12
Glare	0	0	1	1	0	0
Obstruction	0	0	2	2	0	0
Weather Condition	2	11	13	26	3	16
Other	0	2	2	4	0	3
Unknown	0	0	0	0	0	0
SUBTOTAL	**2**	**21**	**25**	**48**	**3**	**31**
VEHICLE DEFECT FACTORS						
Brakes	1	10	19	30	1	25
Steering	0	1	3	4	0	2
Power Plant	0	0	3	3	0	0
Tires/Wheel	1	19	35	55	1	26
Lights	0	2	1	3	0	2
Signals	0	1	0	1	0	1
Windows/Shield	0	0	0	0	0	0
Restraint Systems	0	1	2	3	0	1
Truck Coupling	1	0	7	8	1	0
Cargo	1	9	14	24	1	11
Fuel System	0	0	0	0	0	0
Other	1	6	14	21	1	10
Unknown	0	1	2	3	0	1
SUBTOTAL	**5**	**50**	**100**	**155**	**5**	**79**
OTHER CAUSES	0	0	0	0	0	0
TOTALS	**99**	**1,431**	**1,583**	**3,113**	**119**	**2,509**

*Property Damage Only


TOP TEN FIRST HARMFUL EVENTS FOR ALL CMV COLLISIONS
2,500
2,000
1,500
1,000
500
0
2,104
209
184
72
49
47
47
36
35
29
Vehicle in Transport
Overturn / Rollover
Motor Vehicle (Stopped)
Ditch
Tree
Ran Off Road Right
Median Barrier
Cargo/ Equip Loss or Shift
Other Movable Object
Other Non-Collision


MOST COMMON FIRST HARMFUL EVENTS IN FATAL CMV COLLISIONS
90
80
70
60
50
40
30
20
10
0
80
5
4
4
2
Vehicle in Transport
Motor Vehicle (stopped)
Overturn/ Rollover
Tree
Pedestrian

TRAFFIC COLLISIONS BY FIRST HARMFUL EVENT

FIRST HARMFUL EVENT (FHE)	COLLISION TYPE			TOTAL	PERSONS	
	FATAL	INJURY	PDO*		KILLED	INJURED
NON-COLLISION						
CARGO / EQUIP LOSS OR SHIFT	1	11	24	36	1	12
CROSS MEDIAN / CENTER LINE	0	6	3	9	0	13
DOWNHILL RUNAWAY	0	0	2	2	0	0
EQUIPMENT FAILURE	0	9	7	16	0	20
OVERTURN / ROLLOVER	4	94	111	209	4	109
SPILL (2 WHEEL VEHICLE)	0	0	0	0	0	0
FIRE/EXPLOSION	0	0	1	1	0	0
IMMERSION	0	1	0	1	0	1
JACK-KNIFE	0	5	22	27	0	14
RAN OFF ROAD LEFT	0	7	13	20	0	7
RAN OFF ROAD RIGHT	0	18	29	47	0	20
SEPARATION OF UNITS	0	1	5	6	0	1
OTHER NON-COLLISION	0	10	19	29	0	13
UNKNOWN NON-COLLISION	0	1	2	3	0	1
SUBTOTAL	**5**	**163**	**238**	**406**	**5**	**211**
OBJECT NOT FIXED						
PEDESTRIAN	2	7	0	9	2	7
PEDALCYCLIST	0	7	0	7	0	7
RAILWAY TRAIN	0	2	2	4	0	2
ANIMAL (DEER ONLY)	0	2	2	4	0	2
ANIMAL (ALL OTHERS)	0	4	2	6	0	6
VEHICLE (PARKED)	1	10	14	25	2	15
VEHICLE (STOPPED)	5	88	91	184	6	175
VEHICLE (IN TRANSPORT)	80	1,016	1,008	2,104	98	1,902
VEHICLE (OTHER ROADWAY)	1	6	8	15	1	14
WORK ZONE MAINT. EQUIPMENT	0	2	0	2	0	2
OTHER OBJECT NON-FIXED	0	7	28	35	0	12
UNKNOWN MOVABLE OBJECTS	0	1	1	2	0	1
SUBTOTAL	**89**	**1,152**	**1,156**	**2,397**	**109**	**2,145**
FIXED OBJECT						
HIGHWAY GUARDRAIL END	0	3	5	8	0	3
HIGHWAY GUARDRAIL FACE	0	6	20	26	0	6
CRASH CUSHION	0	0	1	1	0	0
UTILITY POLE	0	7	4	11	0	7
TREE	4	19	26	49	4	22
HIGHWAY TRAFFIC SIGN POST	0	3	5	8	0	3
OTHER (POST, POLE, SUPPORT, ETC.)	0	2	6	8	0	2
OTHER (WALL, BLDG, TUNNEL, ETC.)	0	4	1	5	0	13
CULVERT	0	0	4	4	0	0
CURBING	0	2	1	3	0	3
MEDIAN BARRIER	0	12	35	47	0	14
FENCE	0	2	3	5	0	5
DITCH	1	27	44	72	1	33
OVERHEAD STRUCT/UNDERPASS	0	2	4	6	0	2
EMBANKMENT	0	14	12	26	0	16
BRIDGE/PIER/ABUTMENT	0	2	0	2	0	2
BRIDGE PARAPET END	0	0	0	0	0	0
BRIDGE RAIL	0	3	3	6	0	4
OTHER FIXED OBJECTS	0	7	14	21	0	16
UNKNOWN FIXED OBJECT	0	1	1	2	0	2
SUBTOTAL	**5**	**116**	**189**	**310**	**5**	**153**
YEAR TOTALS	**99**	**1,431**	**1,583**	**3,113**	**119**	**2,509**

*Property Damage Only

TRAFFIC COLLISIONS BY MANNER OF COLLISION

MANNER OF COLLISION	COLLISION TYPE			TOTAL	PERSONS	
	FATAL	INJURY	PDO*		KILLED	INJURED
NOT COLLISION WITH VEH. IN TRANSPORT	8	237	363	608	8	306
REAR END	6	141	125	272	7	274
HEAD-ON	13	34	27	74	14	92
REAR TO REAR	0	0	1	1	0	0
ANGLE	26	253	205	484	34	510
SIDESWIPE - SAME DIRECTION	1	57	91	149	6	97
SIDESWIPE - OPPOSITE DIRECTION	3	26	21	50	3	35
BACKED INTO	0	4	17	21	0	9
UNKNOWN	0	7	19	26	0	10
MISSING**	42	672	714	1,428	47	1,176
TOTALS	**99**	**1,431**	**1,583**	**3,113**	**119**	**2,509**

*Property Damage Only
**Missing a code in the MOC section of the TR-310 form. This could also be a collision of a vehicle not struck.

MANNER OF COLLISION	COLLISION TYPE			TOTAL	PERSONS	
	FATAL	INJURY	PDO*		KILLED	INJURED
NOT COLLISION WITH VEH. IN TRANSPORT	8.1%	16.6%	22.9%	19.5%	6.7%	12.2%
REAR END	6.1%	9.9%	7.9%	8.7%	5.9%	10.9%
HEAD-ON	13.1%	2.4%	1.7%	2.4%	11.8%	3.7%
REAR TO REAR	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%
ANGLE	26.3%	17.7%	13.0%	15.5%	28.6%	20.3%
SIDESWIPE - SAME DIRECTION	1.0%	4.0%	5.7%	4.8%	5.0%	3.9%
SIDESWIPE - OPPOSITE DIRECTION	3.0%	1.8%	1.3%	1.6%	2.5%	1.4%
BACKED INTO	0.0%	0.3%	1.1%	0.7%	0.0%	0.4%
UNKNOWN	0.0%	0.5%	1.2%	0.8%	0.0%	0.4%
MISSING**	42.4%	47.0%	45.1%	45.9%	39.5%	46.9%
TOTALS	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

*Property Damage Only
**Missing a code in the MOC section of the TR-310 form. This could also be a collision of a vehicle not struck.

CMV COLLISIONS WITH OTHER MOTOR VEHICLES

(The data below refers to the table on the following page)

67% of CMV crashes involved two vehicles, a CMV and a non-CMV. 72% of the fatal collisions in commercial motor vehicle collisions were the result of a CMV versus a non-CMV collision. Over 10% of fatal collisions in South Carolina involved a commercial motor vehicle. More than 11% of all traffic fatalities resulted from a CMV crash. However, commercial vehicles were involved in only 2% of all collisions. Of those drivers who contributed to the cause of a fatal two-vehicle collision, 73% were non-CMV drivers. Nevertheless, non-CMV drivers made up only 49% of contributing drivers in all CMV collisions. Suggestion: don't hang out in the "no-zone".

DRIVERS IN CMV COLLISIONS WHO CONTRIBUTED TO COLLISION

COLLISION	COLLISION TYPE					
	FATAL	% FATAL	INJURY	PDO*	TOTAL	% OF TOTAL
CMV	11	15.5	459	460	930	44.6
NON-CMV	52	73.2	454	522	1,028	49.3
BOTH	3	4.2	32	23	58	2.8
NEITHER	5	7.0	23	43	71	3.4
TOTALS	**71**	**100.0**	**968**	**1,048**	**2,087**	**100.0**

*Property Damage Only

This table counts only **two-vehicle collisions between a CMV and a Non-CMV .

WHAT IS A NO-ZONE?

The "No-Zone" represents the danger areas around trucks and buses where crashes are more likely to occur. Some No-Zones are actually blind spots or areas around trucks and buses where a car "disappers" from the view of the drivers. These blind spots are the Side No-Zone, Rear No-Zone, and Front No-Zone areas. Side No-Zones are blind spots on both sides o f trucks and buses. If you are driving a car and can't see the driver's face in the side-view mirror, then the driver (of the truck) cannot see you. Rear No-Zones are directly behind trucks and buses. Never cross behind a truck that is backing up and avoid tailgating! Truck drivers have no rear-view mirrors and may not see you cutting in behind them. Front No-Zones could cause you to get "rear-ended" by a truck or bus if you cut in front too soon after passing, then immediately slow down. When passing a CMV, look for the whole front of the vehicle in your rear-view mirror before pulling in front, and then don't slow down! Wide right turns are also dangerous. CMV's swing wide to safely make a right turn. Trying to squeeze in between the CMV and the curb is an invitation for disaster.

A bus collided with a tractor trailer on I-85. There were 27 people injured, including the driver of the bus. The bus was traveling from Atlanta to New York when the bus driver ran into the back of the truck.

Part II - Collision Characteristics

There are many characteristics associated with CMV collisions. Patterns in these characteristics can provide insight into the cause of collisions and may ultimately lead to effective countermeasures for reducing the number of collisions that occur and minimizing the severity of those that will still occur. The data provided on the following pages may raise interesting questions for those interested in highway safety. These questions may in turn lead to research, which addresses a particular collision characteristic. Here are some examples of CMV collision characteristics for 2002:

A. Driver

- Males make up the vast majority of CMV drivers in collisions, likely mirroring the population of CMV drivers.
- Female drivers were involved in 41.6% of all traffic collisions in S.C. in 2002, yet they made up 7.8% of CMV drivers involved in collisions with CMV's.

B. Time

- The month of December had the most fatal collisions (12), followed by October (11).
- CMV collisions are much more likely to occur during the week (Monday -Friday) as opposed to the weekend. More fatal CMV collisions occurred on Monday (23) and Tuesday (21).

C. Location

- More fatal CMV collisions occurred on U.S. primary routes than any other route category.
- Spartanburg (232) and Greenville (227) had more CMV collisions than any other county. Orangeburg had the most fatal collisions (8), followed by Horry (7).

D. Environment

- The vast majority of CMV collisions occurred during the day in clear weather, and on dry, straight, and level roads.

E. Vehicles

- 57% of CMV's involved in collisions consisted of tractors with semi-trailers.
- Less than 3% of CMV's involved in all CMV collisions were carrying hazardous materials.

A. The Driver

Numerous decisions are required of drivers in the operation of a commercial motor vehicle. All too often, poor judgement, inattention, carelessness or even deliberate intent on the part of a driver results in a dangerous driving decision, which leads to a traffic collision. The primary contributing factor in over 90% of all reported traffic crashes was driver-related in 2002. Driver violations reported during 2002 are as follows:

Summary of Serious Traffic Enforcement Violations

Violation	FY 2001	FY 2002	FY 2003*
1. Speeding (> 10 MPH over Speed Limit)	4,357	4,777	2,083
2. Failure to Obey Traffic Control Device	327	385	176
3. Use/Under Influence of Alcohol	110	138	84
4. Driver Uses/Is in Possession of Drugs	53	136	78
5. Improper Lane Change	69	101	57
6. Following Too Closely	71	94	50
7. Failure to Yield Right of Way	17	80	13
8. Improper Turns	13	20	5
9. Improper Passing	5	5	1
10. Reckless Driving	2	3	0
Total	**5,024**	**5,739**	**2,547**

*Cited during October 1, 2002 through July 30, 2003 time period

Enumerated on the following pages are the numbers of commercial driver licenses issued by county and drivers involved in collisions by age and sex. For the entire licensed population, approximately 7.5% of the CDL's were issued in Greenville County. Spartanburg issued 8,585 out of the 133,170 CDL's, which accounted for 6.4%, in the state of South Carolina.

SOUTH CAROLINA COMMERCIAL DRIVER'S LICENSE ANALYSIS BY COUNTY

COUNTY	CDL DRIVER'S LICENSE CLASS						TOTALS
	A	AM	B	BM	C	CM	
ABBEVILLE	558	109	192	23	89	3	974
AIKEN	2,961	399	985	86	338	13	4,782
ALLENDALE	303	38	79	4	16	1	441
ANDERSON	3,359	584	1,240	134	368	36	5,721
BAMBERG	416	45	115	8	45	1	630
BARNWELL	639	71	159	11	49	1	930
BEAUFORT	1,117	189	760	65	165	12	2,308
BERKELEY	3,233	571	1,201	94	206	26	5,331
CALHOUN	568	88	162	11	26	4	859
CHARLESTON	3,825	491	1,819	124	406	22	6,687
CHEROKEE	1,101	286	467	58	99	6	2,017
CHESTER	1,013	234	306	45	80	8	1,686
CHESTERFIELD	1,181	194	525	30	96	4	2,030
CLARENDON	1,012	128	301	23	40	3	1,507
COLLETON	1,470	194	408	23	76	2	2,173
DARLINGTON	1,540	243	487	50	104	5	2,429
DILLON	858	119	250	18	60	3	1,308
DORCHESTER	1,998	386	835	64	149	17	3,449
EDGEFIELD	667	65	219	13	54	5	1,023
FAIRFIELD	766	127	325	25	48	0	1,291
FLORENCE	2,749	438	955	85	262	26	4,515
GEORGETOWN	935	152	486	57	65	4	1,699
GREENVILLE	5,344	914	2,663	252	713	55	9,941
GREENWOOD	1,070	223	354	43	216	8	1,914
HAMPTON	496	81	218	13	39	2	849
HORRY	3,324	788	1,918	254	290	25	6,599
JASPER	507	83	226	15	47	1	879
KERSHAW	1,334	274	437	39	88	10	2,182
LANCASTER	1,275	244	514	68	165	15	2,281
LAURENS	1,444	240	526	39	155	13	2,417
LEE	579	83	206	8	33	1	910
LEXINGTON	4,272	922	1,835	233	456	39	7,757
MCCORMICK	874	143	305	25	76	2	1,425
MARION	669	70	262	14	47	2	1,064
MARLBORO	228	24	102	7	42	2	405
NEWBERRY	1,050	193	317	29	105	6	1,700
OCONEE	1,226	223	654	63	90	8	2,264
ORANGEBURG	2,559	378	822	47	175	5	3,986
PICKENS	2,057	387	930	114	166	13	3,667
RICHLAND	4,268	565	2,066	144	553	21	7,617
SALUDA	668	90	197	16	59	3	1,033
SPARTANBURG	4,726	836	2,241	202	549	31	8,585
SUMTER	2,083	273	989	64	125	8	3,542
UNION	734	120	260	20	84	1	1,219
WILLIAMSBURG	1,066	113	380	18	82	2	1,661
YORK	2,926	736	1,382	187	238	14	5,483
TOTALS	77,048	13,154	32,080	2,965	7,434	489	133,170

AGE AND SEX OF CMV DRIVERS INVOLVED IN CMV TRAFFIC COLLISIONS

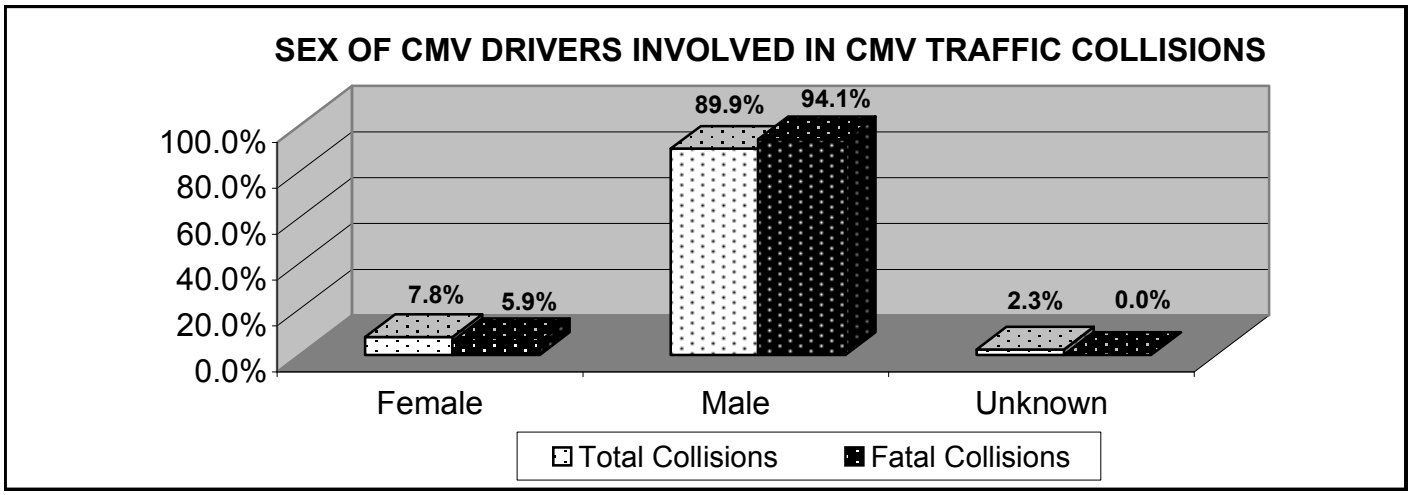
TOTAL COLLISIONS				
AGE	FEMALE	MALE	UNKNOWN	TOTAL
UNDER 15	2	5	0	7
15 to 24	9	144	0	153
25 to 34	57	662	0	719
35 to 44	85	816	1	902
45 to 54	69	727	0	796
55 to 64	24	438	0	462
65 to 74	3	76	0	79
75 to 84	0	9	0	9
85 & OLDER	0	1	0	1
UNKNOWN	1	8	73	82
TOTALS**	**250**	**2,886**	**74**	**3,210**

FATAL COLLISIONS				
AGE	FEMALE	MALE	UNKNOWN	TOTAL
UNDER 15	0	0	0	0
15 to 24	0	7	0	7
25 to 34	0	25	0	25
35 to 44	1	26	0	27
45 to 54	4	19	0	23
55 to 64	1	15	0	16
65 to 74	0	3	0	3
75 to 84	0	0	0	0
85 & OLDER	0	0	0	0
UNKNOWN	0	0	0	0
TOTALS**	**6**	**95**	**0**	**101**

INJURY COLLISIONS				
AGE	FEMALE	MALE	UNKNOWN	TOTAL
UNDER 15	1	2	0	3
15 to 24	2	71	0	73
25 to 34	31	285	0	316
35 to 44	52	378	0	430
45 to 54	42	332	0	374
55 to 64	11	195	0	206
65 to 74	2	42	0	44
75 to 84	0	5	0	5
85 & OLDER	0	0	0	0
UNKNOWN	1	2	21	24
TOTALS**	**142**	**1,312**	**21**	**1,475**

PROPERTY DAMAGE ONLY COLLISIONS				
AGE	FEMALE	MALE	UNKNOWN	TOTAL
UNDER 15	1	3	0	4
15 to 24	7	66	0	73
25 to 34	26	352	0	378
35 to 44	32	412	1	445
45 to 54	23	376	0	399
55 to 64	12	228	0	240
65 to 74	1	31	0	32
75 to 84	0	4	0	4
85 & OLDER	0	1	0	1
UNKNOWN	0	6	52	58
TOTALS**	**102**	**1,479**	**53**	**1,634**

**Includes drivers whose age and sex were not recorded on the report, hit and run collisions for which driver information was not available and also includes parked cars with no drivers.



The largest group of female & male cmv drivers involved in total CMV collisions was between the ages of 35 and 44 (34% and 28%, respectively). Two-thirds of CMV female drivers involved in fatal collisions were between the ages of 45 and 54. Over one-fourth of the CMV male drivers involved in fatal collisions were between the ages of 35 and 44.

AGE AND SEX OF NON-CMV DRIVERS INVOLVED IN CMV TRAFFIC COLLISIONS

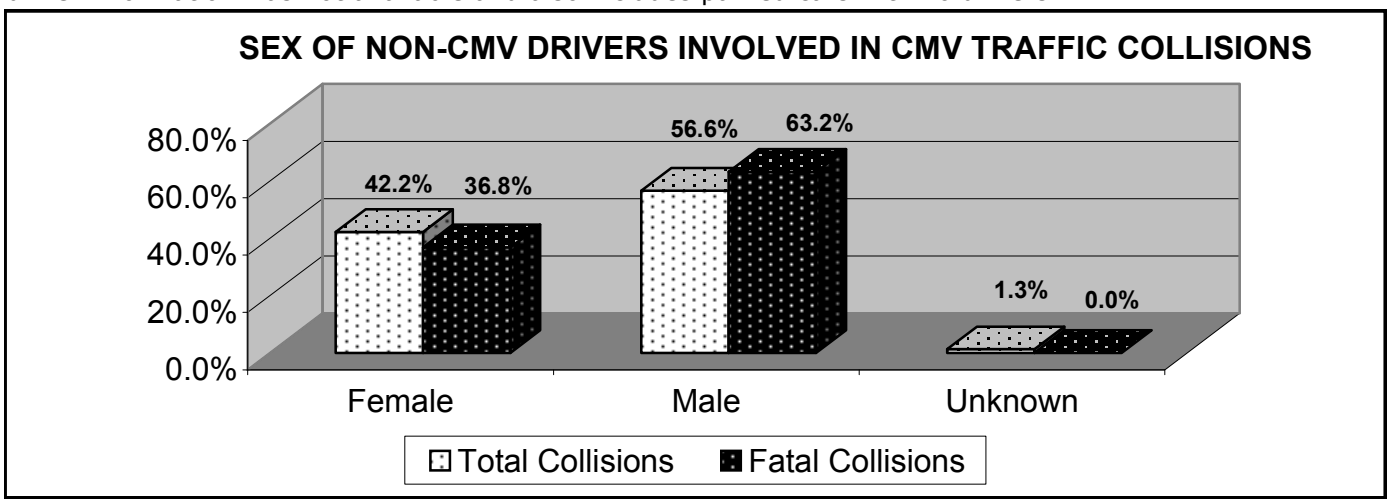
TOTAL COLLISIONS				
AGE	FEMALE	MALE	UNKNOWN	TOTAL
UNDER 15	3	8	0	11
15 to 24	291	359	0	650
25 to 34	263	305	1	569
35 to 44	235	303	0	538
45 to 54	173	241	0	414
55 to 64	105	167	0	272
65 to 74	58	113	0	171
75 to 84	32	52	0	84
85 & OLDER	3	9	0	12
UNKNOWN	6	12	34	52
TOTALS**	**1,169**	**1,569**	**35**	**2,773**

FATAL COLLISIONS				
AGE	FEMALE	MALE	UNKNOWN	TOTAL
UNDER 15	0	0	0	0
15 to 24	5	17	0	22
25 to 34	13	13	0	26
35 to 44	7	10	0	17
45 to 54	5	9	0	14
55 to 64	3	7	0	10
65 to 74	4	6	0	10
75 to 84	2	5	0	7
85 & OLDER	0	0	0	0
UNKNOWN	0	0	0	0
TOTALS**	**39**	**67**	**0**	**106**

INJURY COLLISIONS				
AGE	FEMALE	MALE	UNKNOWN	TOTAL
UNDER 15	3	4	0	7
15 to 24	154	148	0	302
25 to 34	135	149	0	284
35 to 44	128	134	0	262
45 to 54	104	108	0	212
55 to 64	64	72	0	136
65 to 74	30	54	0	84
75 to 84	16	26	0	42
85 & OLDER	1	6	0	7
UNKNOWN	4	3	11	18
TOTALS**	**639**	**704**	**11**	**1,354**

PROPERTY DAMAGE ONLY COLLISIONS				
AGE	FEMALE	MALE	UNKNOWN	TOTAL
UNDER 15	0	4	0	4
15 to 24	132	194	0	326
25 to 34	115	143	1	259
35 to 44	100	159	0	259
45 to 54	64	124	0	188
55 to 64	38	88	0	126
65 to 74	24	53	0	77
75 to 84	14	21	0	35
85 & OLDER	2	3	0	5
UNKNOWN	2	9	23	34
TOTALS**	**491**	**798**	**24**	**1,313**

**Includes drivers whose age and sex were not recorded on the report, hit and run collisions for which driver information was not available and also includes parked cars with no drivers.



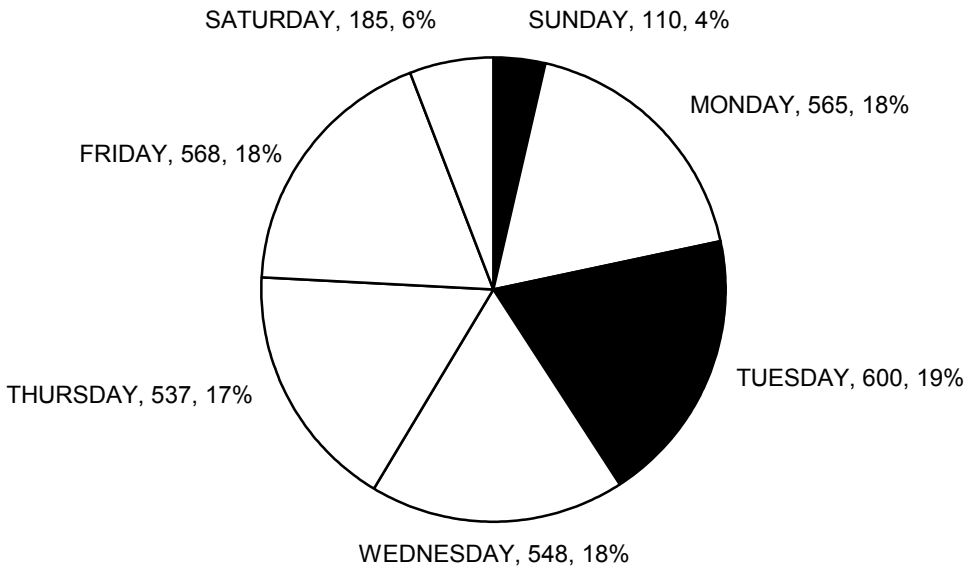
Female and male drivers between the ages of 15 and 24 made up the largest group of non-cmv drivers for total collisions (25% and 23%, respectively). One-third of non-cmv female drivers involved in fatal collisions were between the ages of 25 and 34. One-fourth of non-cmv male drivers involved in fatal collisions were between the ages of 15 and 24.

B. Time

The frequency of traffic collisions is affected by the settings of the clock and calendar. The concentration of traffic, for example, is heavier at certain times of the day, days of the week and month. Driver attitudes, vision and behavior are influenced by time factors. In addition, weather may be influenced by time of year. On the following pages, statistics are presented which indicate observable time variables. Some of the important observations in the 2002 data are as follows:

- More CMV crashes were reported on Tuesday than any other day of the week. There were 600 collisions during 2002, accounting for more than 19% of the total. The fewest number of CMV traffic collisions were reported on Sundays with 110, or 3.5%.
- More CMV fatal collisions occurred in the month of December (12) than any other month of the year. The fewest number of CMV fatal collisions occurred within the month of September (5).
- Fatal collisions occurred more frequently in the daytime hours between 6:00 AM and 12:00 PM. Approximately 42% of all fatal collisions occurred during this six-hour period.

CMV COLLISIONS BY DAY OF THE WEEK

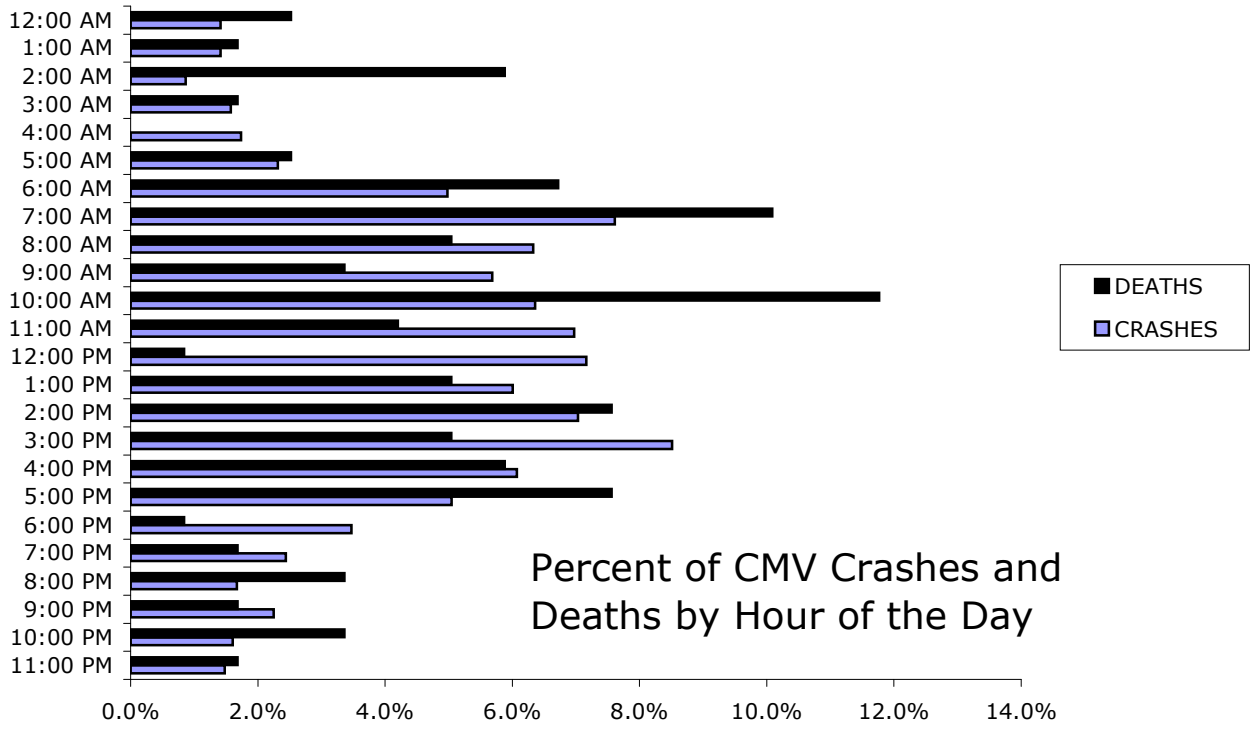


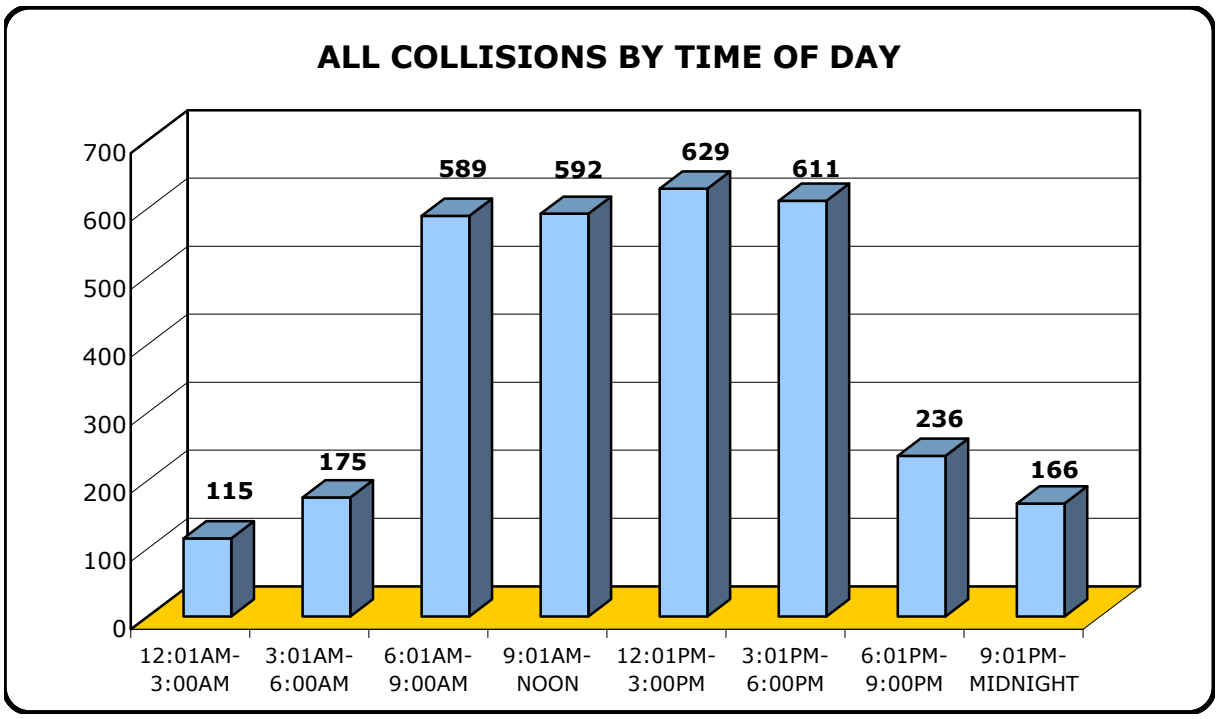
CMV Collisions by Hour of the Day

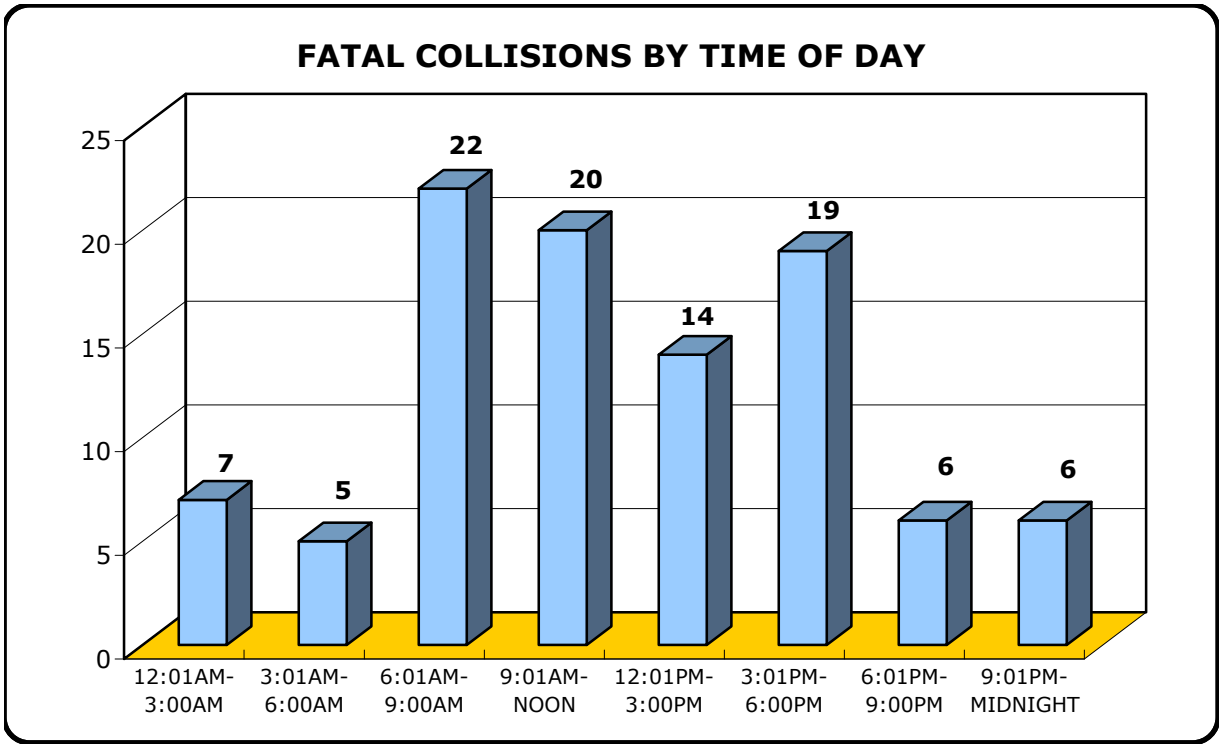
HOUR	CRASHES	DEATHS
12:00 AM	44	3
1:00 AM	44	2
2:00 AM	27	7
3:00 AM	49	2
4:00 AM	54	0
5:00 AM	72	3
6:00 AM	155	8
7:00 AM	237	12
8:00 AM	197	6
9:00 AM	177	4
10:00 AM	198	14
11:00 AM	217	5
12:00 PM	223	1
1:00 PM	187	6
2:00 PM	219	9
3:00 PM	265	6
4:00 PM	189	7
5:00 PM	157	9
6:00 PM	108	1
7:00 PM	76	2
8:00 PM	52	4
9:00 PM	70	2
10:00 PM	50	4
11:00 PM	46	2
TOTAL	**3,113**	**119**

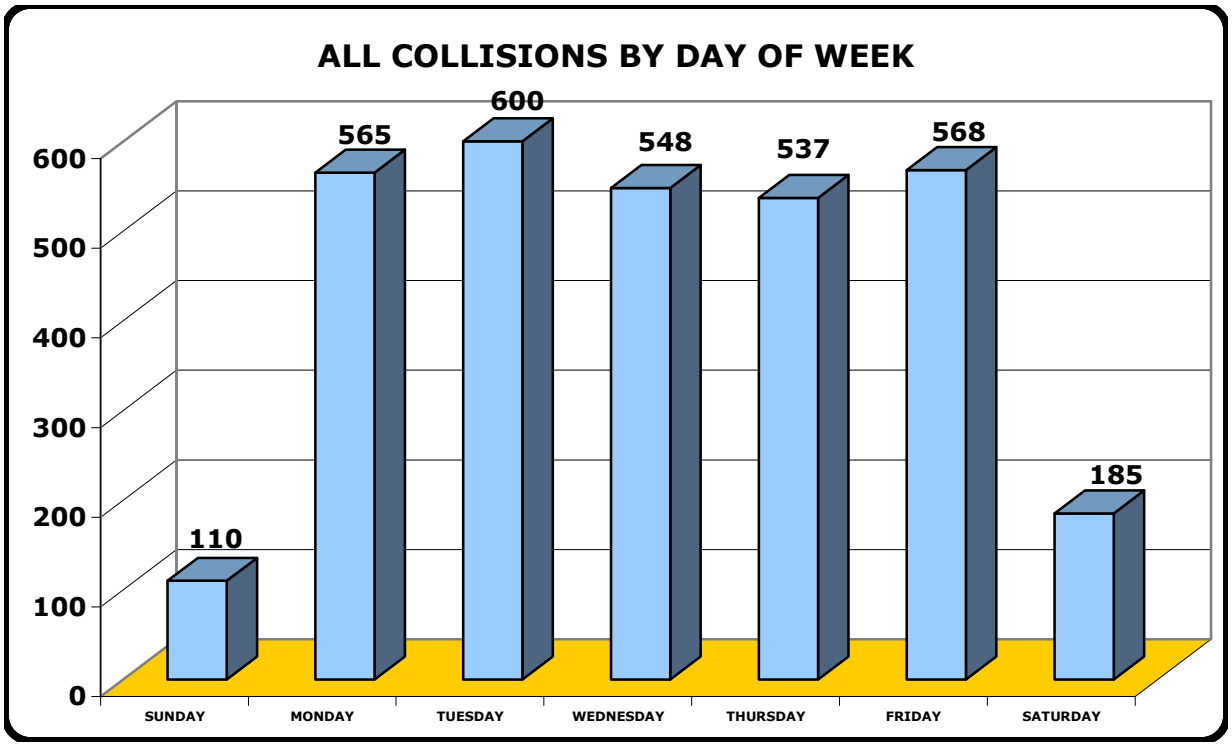
Some hours of the day are more dangerous than others with regard to CMV crashes and deaths. Not surprisingly, commercial vehicle crashes and deaths were higher during peak traffic time. Some hours of the day experience a low percentage of crashes, but they are much more deadly. For example, only 6.4% of CMV crashes in 2002 occurred in the 10:00 AM hour, but 11.8% of all deaths - the highest percentage - occurred then!

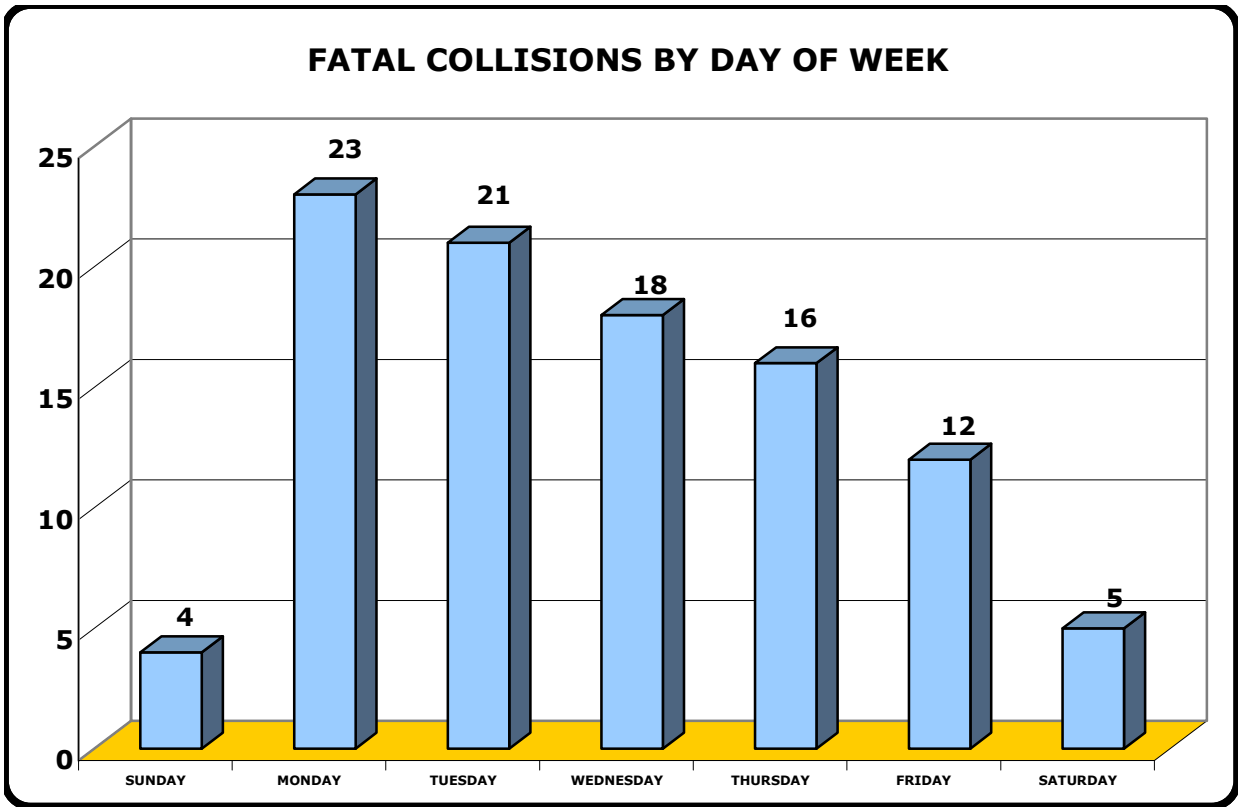
Almost 9% of CMV crashes occurred during the 3:00 PM hour. Only 1% of crashes occurred during the 11:00 PM hour.
The 4:00 AM hour proved to be the least deadliest hour in 2002 for collisions involving CMV's, with 0 deaths recorded for this hour.
Below is a graph of the percent of crashes and deaths by the hours of the day.

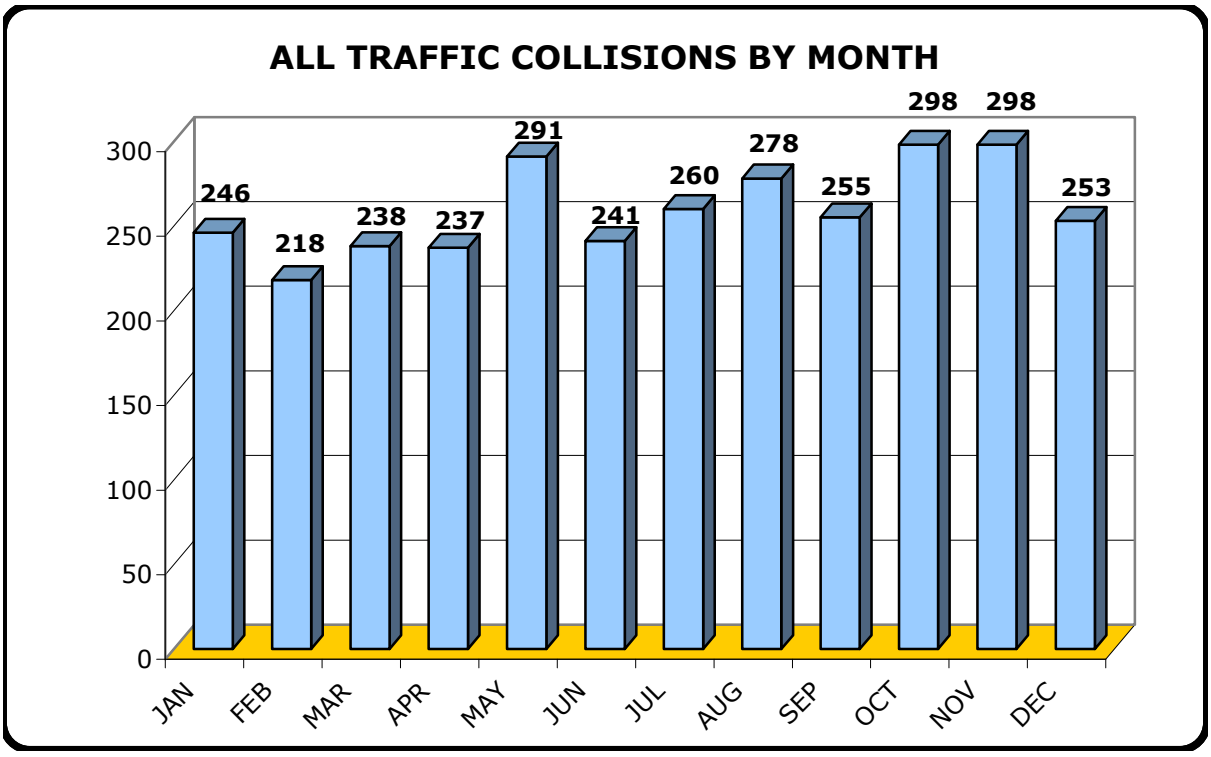


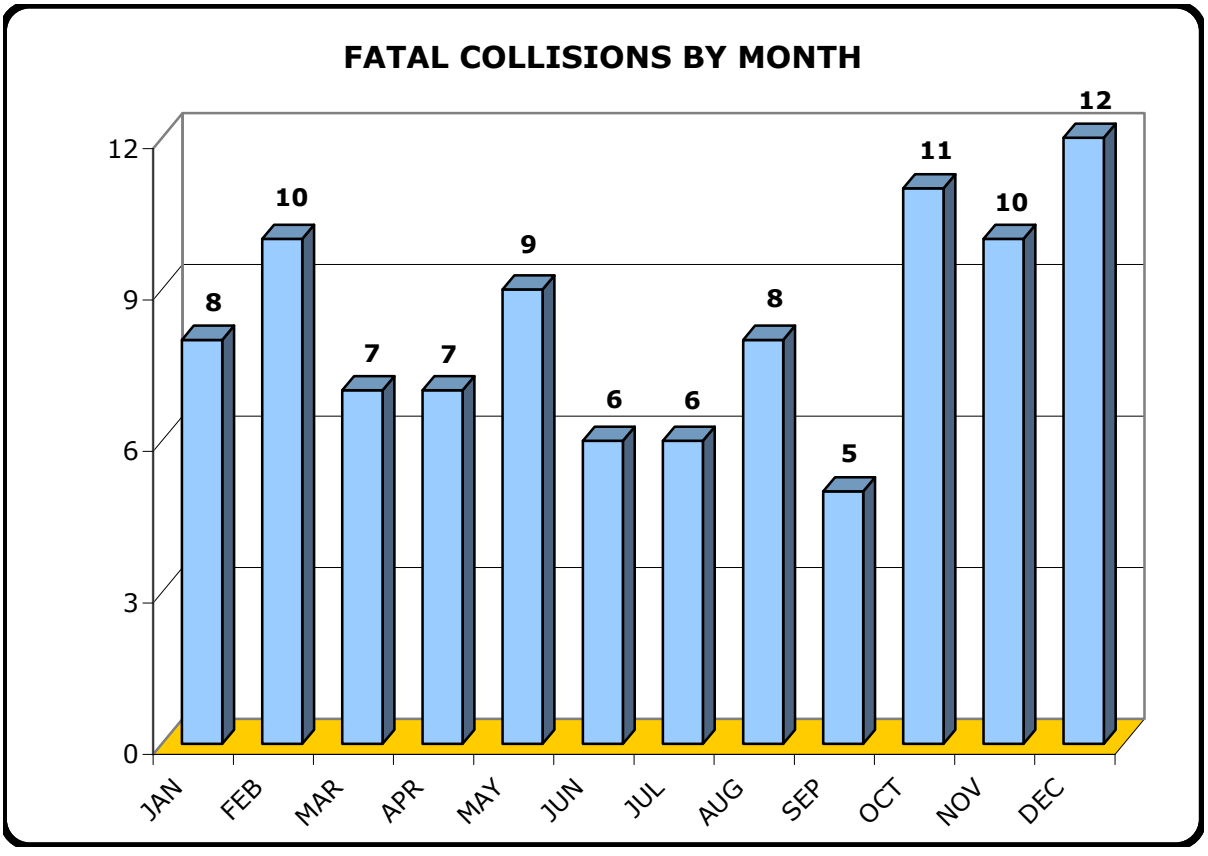

ALL COLLISIONS BY TIME OF DAY
700
600
500
400
300
200
100
0
115
175
589
592
629
611
236
166
12:01AM-3:00AM
3:01AM-6:00AM
6:01AM-9:00AM
9:01AM-NOON
12:01PM-3:00PM
3:01PM-6:00PM
6:01PM-9:00PM
9:01PM-MIDNIGHT


FATAL COLLISIONS BY TIME OF DAY
25
20
15
10
5
0
7
5
22
20
14
19
6
6
12:01AM-3:00AM
3:01AM-6:00AM
6:01AM-9:00AM
9:01AM-NOON
12:01PM-3:00PM
3:01PM-6:00PM
6:01PM-9:00PM
9:01PM-MIDNIGHT


ALL COLLISIONS BY DAY OF WEEK
600
500
400
300
200
100
0
110
565
600
548
537
568
185
SUNDAY
MONDAY
TUESDAY
WEDNESDAY
THURSDAY
FRIDAY
SATURDAY


FATAL COLLISIONS BY DAY OF WEEK
25
20
15
10
5
0
4
23
21
18
16
12
5
SUNDAY
MONDAY
TUESDAY
WEDNESDAY
THURSDAY
FRIDAY
SATURDAY


ALL TRAFFIC COLLISIONS BY MONTH
300
250
200
150
100
50
0
246
218
238
237
291
241
260
278
255
298
298
253
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC

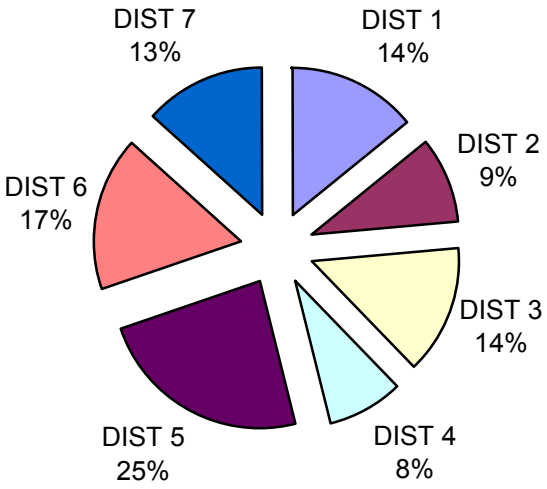

FATAL COLLISIONS BY MONTH
12
9
6
3
0
8
10
7
7
9
6
6
8
5
11
10
12
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC

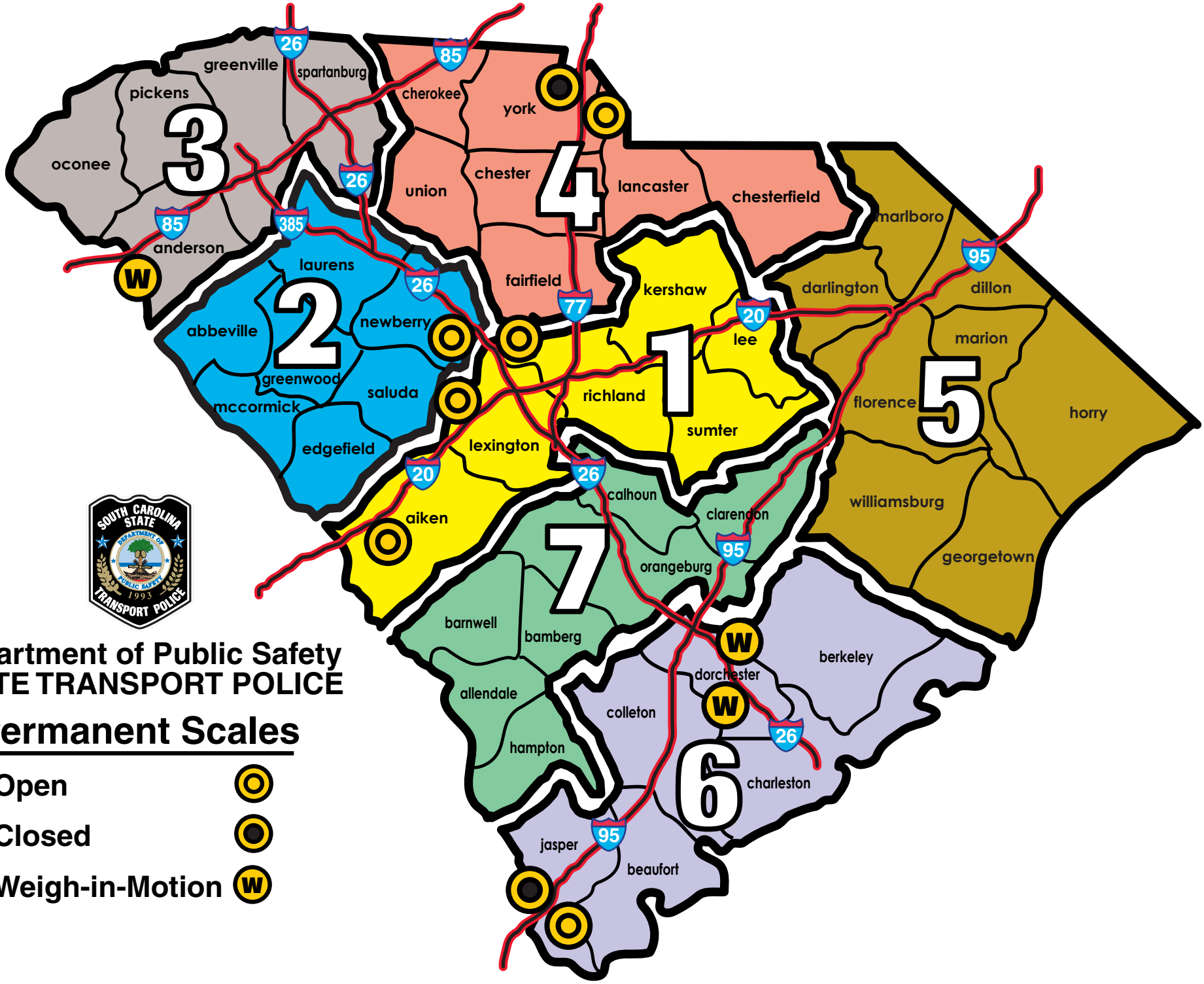
C. Location

South Carolina is a major distribution center for the southern United States. The state is traversed by six interstate highway systems, totaling 809 miles; the state also has 9,442 miles of primary roads and 31,214 miles of secondary roads. A variety of factors influence where traffic collisions, injuries and fatalities occur including the volume of traffic on a particular highway, weather variations and travel patterns. Statistics are presented on the following pages, which indicate observable differences in the occurrence of traffic collisions with relation to various location categories. Some important observations in the data are as follows:

- In 2002, Spartanburg County had the most CMV traffic collisions (232), injury collisions (97) and non-fatal injuries (182). Orangeburg County had the most fatal collisions (8). Orangeburg also had the most fatalities (8).
- Nearly 1 in every 4 fatalities that resulted from a CMV collision occurred in District 5, which includes the counties of Darlington, Marlboro, Dillon, Marion, Horry, Florence, Williamsburg, and Georgetown. 16% of the injuries from a CMV collision occurred in the midlands (District 1) of SC.

CMV FATALITIES BY STP DISTRICT





SOUTH CAROLINA STATE DEPARTMENT OF PUBLIC SAFETY 1993 TRANSPORT POLICE

Department of Public Safety
STATE TRANSPORT POLICE

Permanent Scales

Open

Closed

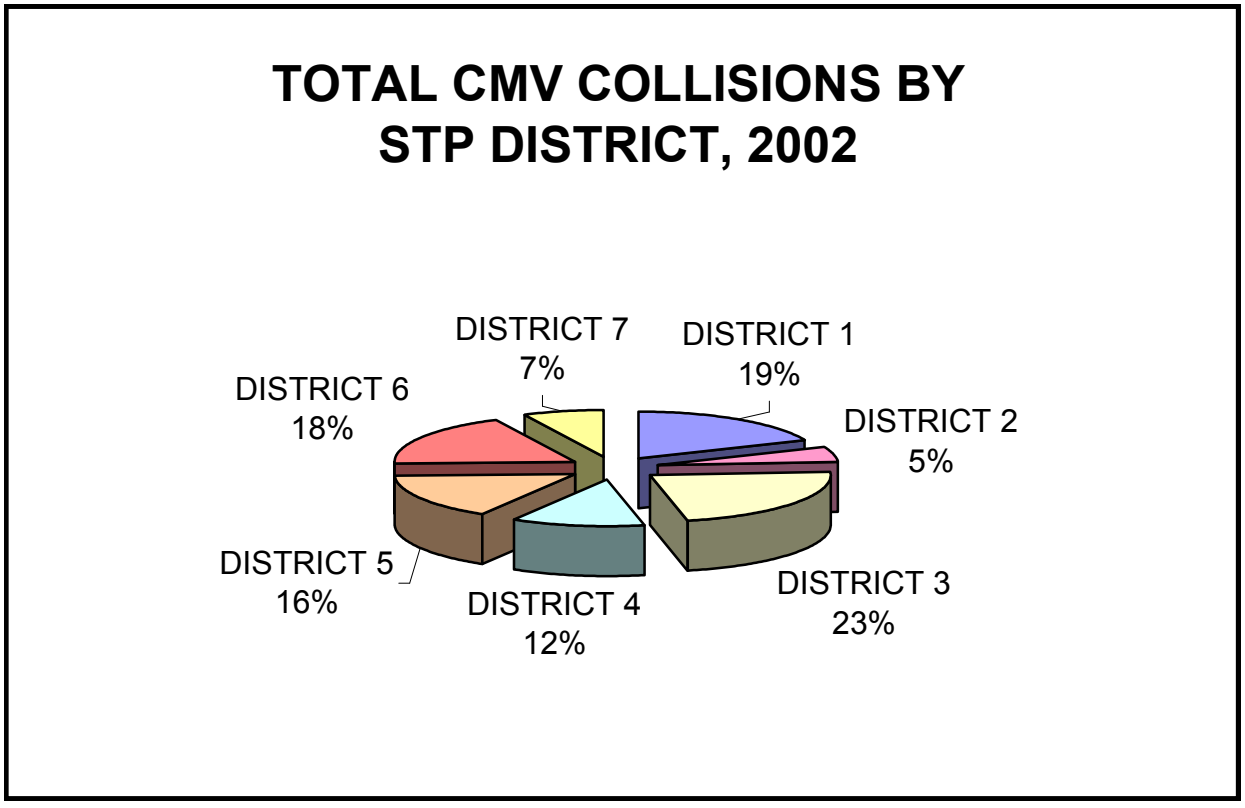
Weigh-in-Motion (W)

CMV COLLISIONS BY STATE TRANSPORT POLICE DISTRICT

STATE TRANSPORT POLICE DISTRICT	COLLISION TYPE			TOTAL	PERSONS	
	FATAL	INJURY	PDO*		KILLED	INJURED
1	15	280	282	577	17	496
2	8	70	86	164	11	134
3	16	282	416	714	17	482
4	8	179	184	371	10	346
5	25	235	235	495	28	436
6	12	296	260	568	20	479
7	15	89	120	224	16	136
TOTALS	**99**	**1,431**	**1,583**	**3,113**	**119**	**2,509**

*Property Damage Only

Only 5% of CMV collisions occurred in District 2 in 2002. On the other hand, 23% of CMV collisions occurred in District 3. District 5 was the leading district for fatalities (24%); District 1 was the top district for injuries (almost 20% of the persons injured in collisions were in District 1).

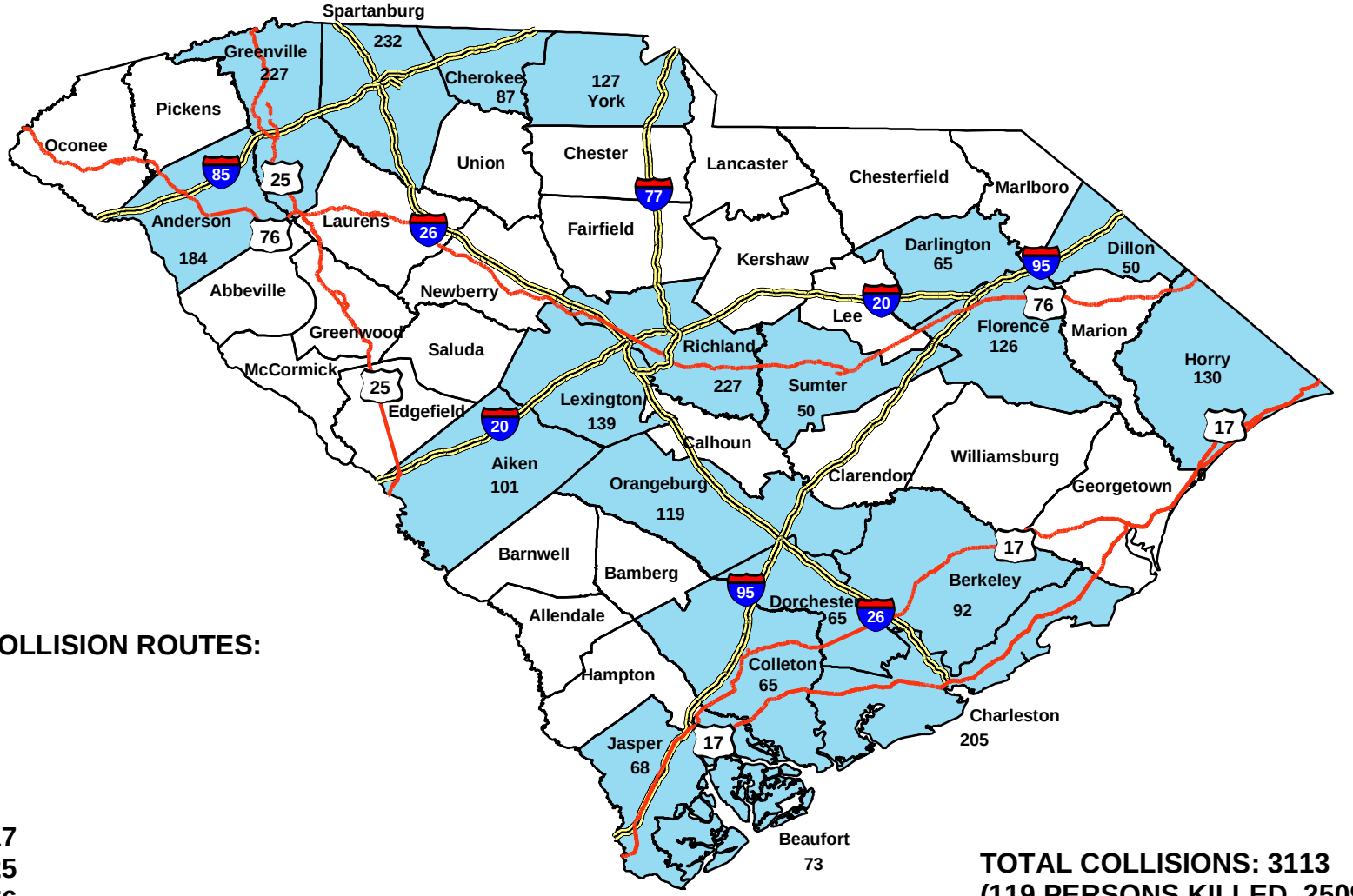


CMV COLLISIONS BY COUNTY (FROM HIGHEST TO LOWEST)

COUNTY	COLLISION TYPE			TOTAL	PERSONS	
	FATAL	INJURY	PDO*		KILLED	INJURED
SPARTANBURG	5	97	130	232	5	182
GREENVILLE	3	96	128	227	3	154
RICHLAND	4	113	104	221	4	215
CHARLESTON	2	118	85	205	2	160
ANDERSON	6	61	117	184	6	105
LEXINGTON	1	71	67	139	1	97
HORRY	7	52	71	130	7	116
YORK	4	69	54	127	4	142
FLORENCE	3	56	67	126	3	84
ORANGEBURG	8	50	61	119	8	69
AIKEN	3	42	56	101	3	71
BERKELEY	4	48	40	92	5	80
CHEROKEE	1	32	54	87	1	48
BEAUFORT	2	32	39	73	4	63
JASPER	2	28	38	68	2	64
COLLETON	0	36	29	65	0	55
DARLINGTON	3	31	31	65	4	60
DORCHESTER	2	34	29	65	7	57
DILLON	2	22	26	50	3	32
SUMTER	4	25	21	50	6	33
LAURENS	0	23	26	49	0	38
CHESTER	0	18	25	43	0	23
KERSHAW	3	14	23	40	3	30
NEWBERRY	3	13	24	40	5	35
CHESTERFIELD	0	27	12	39	0	72
OCONEE	1	13	24	38	2	20
CLARENDON	3	12	22	37	3	21
GEORGETOWN	3	23	11	37	3	39
MARION	2	21	12	35	3	36
PICKENS	1	15	17	33	1	21
LANCASTER	2	11	17	30	4	20
GREENWOOD	2	12	14	28	2	29
FAIRFIELD	0	15	13	28	0	32
CALHOUN	1	10	17	28	1	17
MARLBORO	1	19	7	27	1	30
LEE	0	15	11	26	0	50
WILLIAMSBURG	4	11	10	25	4	39
HAMPTON	2	7	9	18	3	14
SALUDA	2	4	11	17	2	4
UNION	1	7	9	17	1	9
EDGEFIELD	0	11	4	15	0	13
ABBEVILLE	1	6	4	11	2	14
BAMBERG	0	4	5	9	0	7
ALLENDALE	1	2	4	7	1	3
BARNWELL	0	4	2	6	0	5
MCCORMICK	0	1	3	4	0	1
TOTAL	**99**	**1,431**	**1,583**	**3,113**	**119**	**2,509**

*Property Damage Only

HIGH COLLISION COUNTIES (50 or More CMV Collisions)
South Carolina - 2002



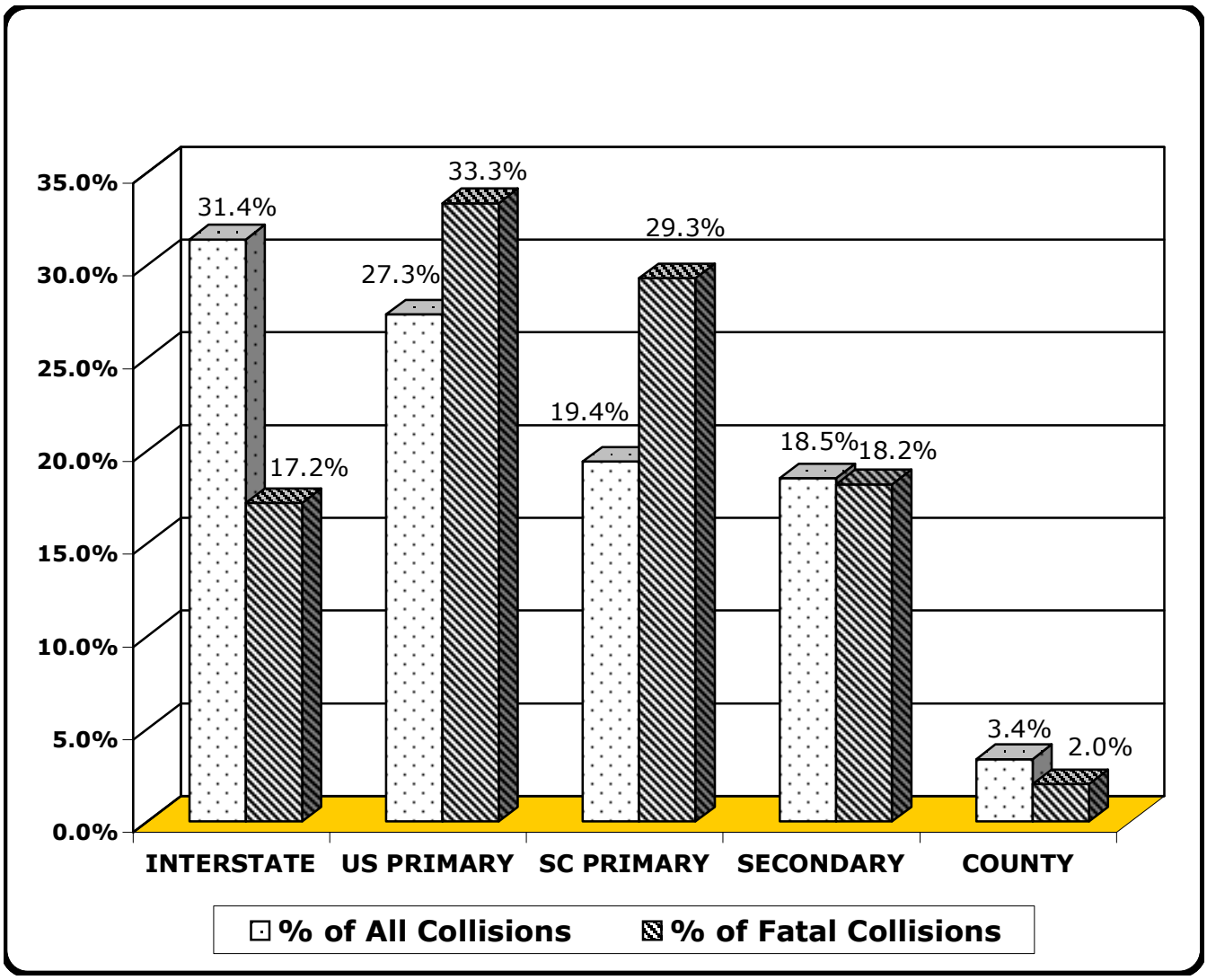
HIGH COLLISION ROUTES:

- **I-20**
- **I-26**
- **I-77**
- **I-85**
- **I-95**
- **US-17**
- **US-25**
- **US-76**

TOTAL COLLISIONS: 3113
(119 PERSONS KILLED, 2509 INJURED)

Source: SafetyNet-Accidents-OHS
Revised 07/08/2003

CMV COLLISIONS BY ROUTE CATEGORY



Most CMV collisions occurred on Interstates (31.4%). The second most common route for CMV collisions was US Primaries (27.3%). However, in fatal CMV collisions, 33.3% occurred on US Primary roadways. 29.3% of fatal CMV collisions occurred on SC Primary roadways. There was approximately the same percentage of total collisions as there were fatal collisions on secondary roadways for CMV collisions in 2002.

CMV TRAFFIC COLLISIONS ON SOUTH CAROLINA INTERSTATES

INTERSTATE 85	COLLISION TYPE			TOTAL	PERSONS		MILES
COUNTY	FATAL	INJURY	PDO*		KILLED	INJURED	
ANDERSON	1	24	64	89	1	48	36.57
CHEROKEE	0	21	40	61	0	35	22.80
GREENVILLE	0	14	32	46	0	15	15.29
OCONEE	0	2	7	9	0	3	4.03
SPARTANBURG	2	13	39	54	2	19	27.59
I-85 TOTALS	**3**	**74**	**182**	**259**	**3**	**120**	**106.28**

INTERSTATE 26	COLLISION TYPE			TOTAL	PERSONS		MILES
COUNTY	FATAL	INJURY	PDO*		KILLED	INJURED	
BERKELEY	0	4	8	12	0	6	17.55
CALHOUN	1	4	11	16	1	10	17.44
CHARLESTON	0	20	23	43	0	26	16.95
DORCHESTER	0	5	3	8	0	5	17.42
LAURENS	0	4	13	17	0	7	15.58
LEXINGTON	0	14	13	27	0	15	21.83
NEWBERRY	1	3	10	14	2	7	27.76
ORANGEBURG	2	11	20	33	2	14	28.28
RICHLAND	0	10	11	21	0	17	12.45
SPARTANBURG	0	14	23	37	0	19	45.69
I-26 TOTALS	**4**	**89**	**135**	**228**	**5**	**126**	**220.95**

INTERSTATE 95	COLLISION TYPE			TOTAL	PERSONS		MILES
COUNTY	FATAL	INJURY	PDO*		KILLED	INJURED	
CLARENDON	2	3	12	17	2	6	34.22
COLLETON	0	16	12	28	0	21	28.30
DILLON	1	10	18	29	2	15	23.77
DORCHESTER	1	4	12	17	6	16	16.04
FLORENCE	0	9	20	29	0	13	26.65
HAMPTON	1	3	4	8	2	8	6.61
JASPER	0	15	25	40	0	28	33.90
ORANGEBURG	1	7	10	18	1	9	14.84
SUMTER	0	2	3	5	0	2	12.86
I-95 TOTALS	**6**	**69**	**116**	**191**	**13**	**118**	**197.19**

INTERSTATE 20	COLLISION TYPE			TOTAL	PERSONS		MILES
COUNTY	FATAL	INJURY	PDO*		KILLED	INJURED	
AIKEN	1	10	24	35	1	22	37.17
DARLINGTON	0	1	1	2	0	2	13.01
FLORENCE	0	0	4	4	0	0	2.36
KERSHAW	1	3	8	12	1	3	21.26
LEE	0	9	5	14	0	42	20.33
LEXINGTON	0	11	18	29	0	14	26.95
RICHLAND	1	17	20	38	1	33	20.43
I-20 TOTALS	**3**	**51**	**80**	**134**	**3**	**116**	**141.51**

INTERSTATE 77	COLLISION TYPE			TOTAL	PERSONS		MILES
COUNTY	FATAL	INJURY	PDO*		KILLED	INJURED	
CHESTER	0	4	8	12	0	7	18.82
FAIRFIELD	0	5	8	13	0	12	21.46
LEXINGTON	0	2	1	3	0	6	3.16
RICHLAND	1	22	22	45	1	30	26.27
YORK	0	19	20	39	0	33	21.34
I-77 TOTALS	**1**	**52**	**59**	**112**	**1**	**88**	**91.05**

*Property Damage Only

TOP 5 HIGHWAYS FOR CMV TRAFFIC COLLISIONS**

U.S. 17	COLLISION TYPE			TOTAL	PERSONS		MILES
COUNTY	FATAL	INJURY	PDO*		KILLED	INJURED	
BEAUFORT	1	6	4	11	1	11	12.65
BERKELEY	0	6	3	9	0	10	38.37
CHARLESTON	2	17	16	35	2	22	74.72
COLLETON	0	7	1	8	0	10	17.31
DORCHESTER	0	2	1	3	0	3	16.42
GEORGETOWN	1	11	6	18	1	18	38.02
HORRY	1	13	15	29	1	22	35.88
JASPER	1	2	3	6	1	7	32.39
U.S. 17 TOTALS	**6**	**64**	**49**	**119**	**6**	**103**	**265.76**

U.S. 52	COLLISION TYPE			TOTAL	PERSONS		MILES
COUNTY	FATAL	INJURY	PDO*		KILLED	INJURED	
BERKELEY	0	16	6	22	0	30	37.76
CHARLESTON	0	10	6	16	0	15	15.06
CHESTERFIELD	0	2	3	5	0	2	19.36
DARLINGTON	0	11	8	19	0	22	20.73
FLORENCE	0	11	10	21	0	15	30.57
WILLIAMSBURG	1	0	0	1	1	1	29.05
U.S. 52 TOTALS	**1**	**50**	**33**	**84**	**1**	**85**	**152.53**

U.S. 76	COLLISION TYPE			TOTAL	PERSONS		MILES
COUNTY	FATAL	INJURY	PDO*		KILLED	INJURED	
ANDERSON	0	3	7	10	0	5	38.18
FLORENCE	1	9	4	14	1	13	30.96
GREENVILLE	0	0	0	0	0	0	2.16
HORRY	0	0	0	0	0	0	7.32
LAURENS	0	0	0	0	0	0	34.87
LEE	0	1	0	1	0	1	9.76
LEXINGTON	0	0	0	0	0	0	4.96
MARION	0	8	2	10	0	13	26.03
NEWBERRY	1	1	2	4	1	16	29.83
OCONEE	0	6	5	11	0	7	34.11
PICKENS	0	2	0	2	0	2	4.37
RICHLAND	0	9	7	16	0	18	35.10
SUMTER	1	6	3	10	2	8	28.66
U.S. 76 TOTALS	**3**	**45**	**30**	**78**	**4**	**83**	**286.31**

U.S. 25	COLLISION TYPE			TOTAL	PERSONS		MILES
COUNTY	FATAL	INJURY	PDO*		KILLED	INJURED	
AIKEN	1	5	8	14	1	8	7.93
EDGEFIELD	0	7	2	9	0	8	32.24
GREENVILLE	2	19	15	36	2	27	53.89
GREENWOOD	0	3	3	6	0	6	36.99
LAURENS	0	0	0	0	0	0	8.88
U.S. 25 TOTALS	**3**	**34**	**28**	**65**	**3**	**49**	**139.93**

U.S. 21	COLLISION TYPE			TOTAL	PERSONS		MILES
COUNTY	FATAL	INJURY	PDO*		KILLED	INJURED	
BEAUFORT	0	4	10	14	0	13	34.69
COLLETON	0	1	1	2	0	1	33.55
LEXINGTON	0	2	2	4	0	2	13.14
ORANGEBURG	0	3	8	11	0	3	35.52
RICHLAND	0	5	5	10	0	16	20.95
YORK	1	8	9	18	1	24	21.76
U.S. 21 TOTALS	**1**	**23**	**35**	**59**	**1**	**59**	**159.61**

*Property Damage Only

**These are collisions on the highway's mainline and alternate routes.

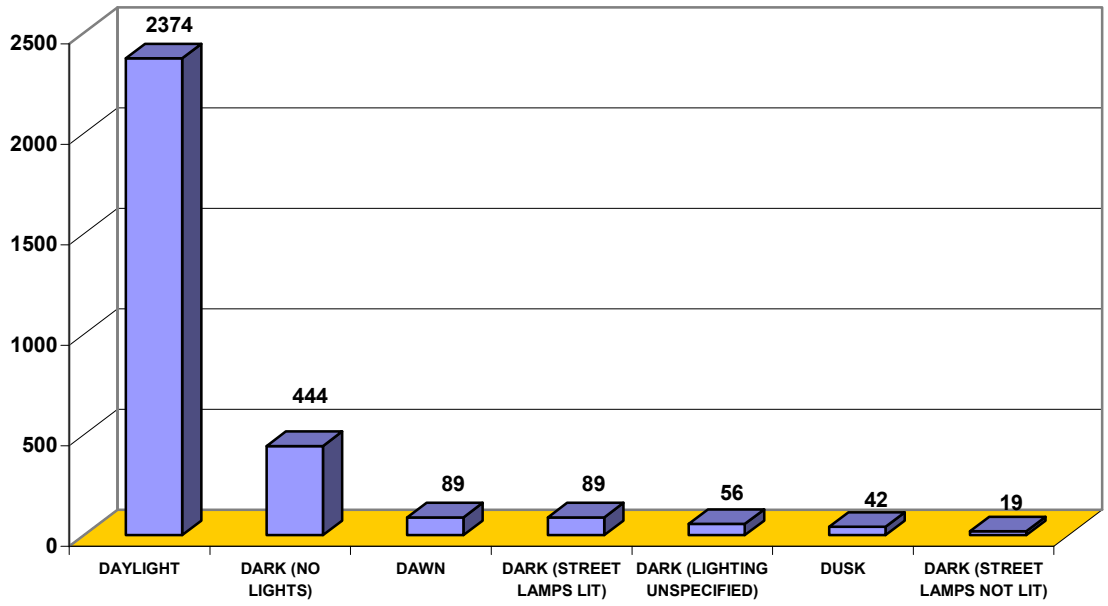
D. Environment

The environment in which motorists operate their commercial motor vehicles can contribute to the occurrence of traffic crashes. Environment is defined herein as the combination of external or extrinsic physical conditions that affect and influence the operation of a motor vehicle. These include road surface, weather, light conditions, traffic control, and road character for each driver.

One or more of the environmental factors can be the primary cause of a collision or may be a contributing factor in a given crash. Weather, light, surface conditions and locales are substantially beyond the control of engineering or law enforcement efforts. Changes in traffic controls, and road character factors can all be effected by traffic engineering efforts.

As reflected in the statistics on the next two pages, most collisions occur under favorable environmental conditions: dry roadway (79.6%): clear weather (71.4%); daylight (76.3%); and straight-level road (72.3%).

CMV COLLISIONS BY LIGHT CONDITIONS



ROAD SURFACE CONDITIONS

ROAD SURFACE CONDITIONS	COLLISION TYPE			TOTAL	PERSONS	
	FATAL	INJURY	PDO*		KILLED	INJURED
Dry	79	1,180	1,219	2,478	96	1,999
Wet	17	230	310	557	19	470
Icy	2	11	25	38	3	23
Slushy	0	0	3	3	0	0
Snowy	1	3	19	23	1	5
Muddy	0	0	0	0	0	0
Water (Standing)	0	5	4	9	0	9
Other	0	2	0	2	0	3
Unknown	0	0	3	3	0	0
TOTALS	**99**	**1,431**	**1,583**	**3,113**	**119**	**2,509**

*Property Damage Only

WEATHER CONDITIONS

WEATHER CONDITIONS	COLLISION TYPE			TOTAL	PERSONS	
	FATAL	INJURY	PDO*		KILLED	INJURED
Clear/ No Adverse Conditions	68	1,071	1,084	2,223	80	1,794
Rain	9	188	245	442	9	387
Cloudy	17	143	200	360	18	277
Sleet or Hail	1	3	11	15	2	3
Snow	1	7	26	34	1	16
Fog/Smog	3	15	15	33	9	28
Blowing Sand, Soil, Dirt or Snow	0	1	0	1	0	1
Severe Cross Wind, High Wind	0	3	0	3	0	3
Other	0	0	0	0	0	0
Unknown	0	0	2	2	0	0
TOTALS	**99**	**1,431**	**1,583**	**3,113**	**119**	**2,509**

*Property Damage Only

ROAD CHARACTER

ROAD CHARACTER	COLLISION TYPE			TOTAL	PERSONS	
	FATAL	INJURY	PDO*		KILLED	INJURED
Straight - Level	65	1,050	1,135	2,250	80	1,882
Straight - On Grade	20	196	264	480	25	346
Straight - Hillcrest	3	29	39	71	3	50
Curve - Level	6	83	71	160	6	128
Curve - On Grade	3	69	69	141	3	94
Curve - Hillcrest	2	4	5	11	2	9
TOTALS	**99**	**1,431**	**1,583**	**3,113**	**119**	**2,509**

*Property Damage Only

WORK ZONE TYPE

WORK ZONE TYPE	COLLISION TYPE			TOTAL	PERSONS	
	FATAL	INJURY	PDO*		KILLED	INJURED
None**	97	1,346	1,473	2,916	117	2,370
Shoulder/Median Work	2	39	58	99	2	67
Lane Shift/Crossover	0	6	10	16	0	9
Intermittent/Moving Work	0	7	10	17	0	12
Lane Closure	0	11	7	18	0	13
Other	0	4	11	15	0	7
Unknown	0	18	14	32	0	31
TOTALS	**99**	**1,431**	**1,583**	**3,113**	**119**	**2,509**

*Property Damage Only

** Includes collisions where no work zone type was recorded.

LIGHT CONDITIONS

LIGHT CONDITIONS	COLLISION TYPE			TOTAL	PERSONS	
	FATAL	INJURY	PDO*		KILLED	INJURED
Daylight	71	1,110	1,193	2,374	84	1,971
Dawn	7	38	44	89	7	91
Dusk	1	18	23	42	1	41
Dark (Lighting Unspecified)	3	24	29	56	4	42
Dark (Street Lamp Lit)	3	43	43	89	3	52
Dark (Street Lamp Not Lit)	0	5	14	19	0	8
Dark (No Lights)	14	193	237	444	20	304
Unknown	0	0	0	0	0	0
TOTALS	**99**	**1,431**	**1,583**	**3,113**	**119**	**2,509**

*Property Damage Only

TRAFFIC CONTROLS

TRAFFIC CONTROLS	COLLISION TYPE			TOTAL	PERSONS	
	FATAL	INJURY	PDO*		KILLED	INJURED
Stop and Go Signal	6	201	189	396	7	345
Flashing Traffic Signal	1	8	2	11	1	49
RR Crossing: Gates/Lights	0	4	7	11	0	5
RR X-Bucks & Flashing Lights	0	3	3	6	0	4
RR Crossbucks Only	0	3	2	5	0	12
Officer or Flagman	0	2	0	2	0	2
Oncoming Emergency Vehicle	0	0	1	1	0	0
Pavement Markings (Only)	3	43	46	92	3	59
Stop Sign	21	153	150	324	26	294
School Zone Sign	0	1	0	1	0	3
Yield Sign	0	16	30	46	0	23
Work Zone	1	25	36	62	1	36
Other Warning Signs	3	34	26	63	9	60
Flashing Beacon	0	1	0	1	0	1
None	64	933	1,085	2,082	72	1,610
Unknown	0	4	6	10	0	6
TOTALS	**99**	**1,431**	**1,583**	**3,113**	**119**	**2,509**

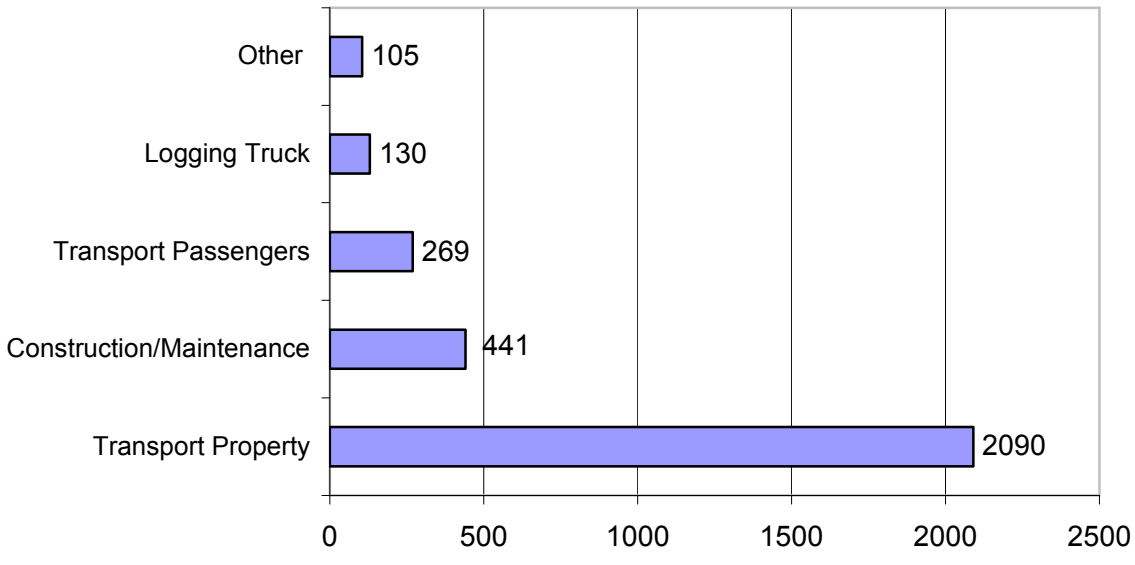
*Property Damage Only

E. Units

The types of 'units' that are involved affect the consequences of traffic collisions. This section presents information on large trucks involved in fatal, injury, and property damage only crashes. Some of the key findings in the 2002 data are as follows:

- The most common unit involved in CMV traffic crashes in 2002 was the truck tractor. Out of 6,179 units involved in CMV traffic collisions during the year, 3,302 units were CMV units and 2,877 units were non-CMV units. Out of the 3,302 CMV's, 2,190 were truck tractors. This represents 66% of the CMV units involved in commercial motor vehicle crashes.
- For fatal collisions, a smaller percentage of units were truck tractors. Of the 220 units involved in fatal collisions, 79 or 35.9% were truck tractors.
- A total of 5 pedestrians were involved in fatal CMV collisions in 2002. This represents 2.3% of all units involved in fatal CMV traffic crashes during the year.
- Automobiles were the second most common unit involved in CMV traffic crashes in 2002. 1,813 automobiles were involved in CMV traffic collisions in 2002, accounting for 29% of all units in CMV traffic collisions.

TOP FIVE VEHICLE USE CODES FOR CMV UNITS (ONLY) INVOLVED IN CMV COLLISIONS



UNIT TYPES**

UNIT TYPES	COLLISION TYPE			TOTAL
	FATAL	INJURY	PDO*	
Truck Tractor	79	941	1,170	2,190
Automobile	61	887	865	1,813
Other Truck	23	435	439	897
Pickup Truck	20	233	212	465
SUV	15	120	118	253
School Bus	4	110	66	180
Mini Van	6	59	66	131
Full Size Van	4	37	36	77
Passenger Bus	1	44	24	69
Other	1	12	19	32
Pedestrian	5	16	1	22
Unknown (Hit & Run Only)	0	4	15	19
Motorcycle	1	9	2	12
Pedalcycle	0	11	0	11
Train	0	5	2	7
Other Motorbike	0	0	1	1
TOTALS	**220**	**2,923**	**3,036**	**6,179**

*Property Damage Only

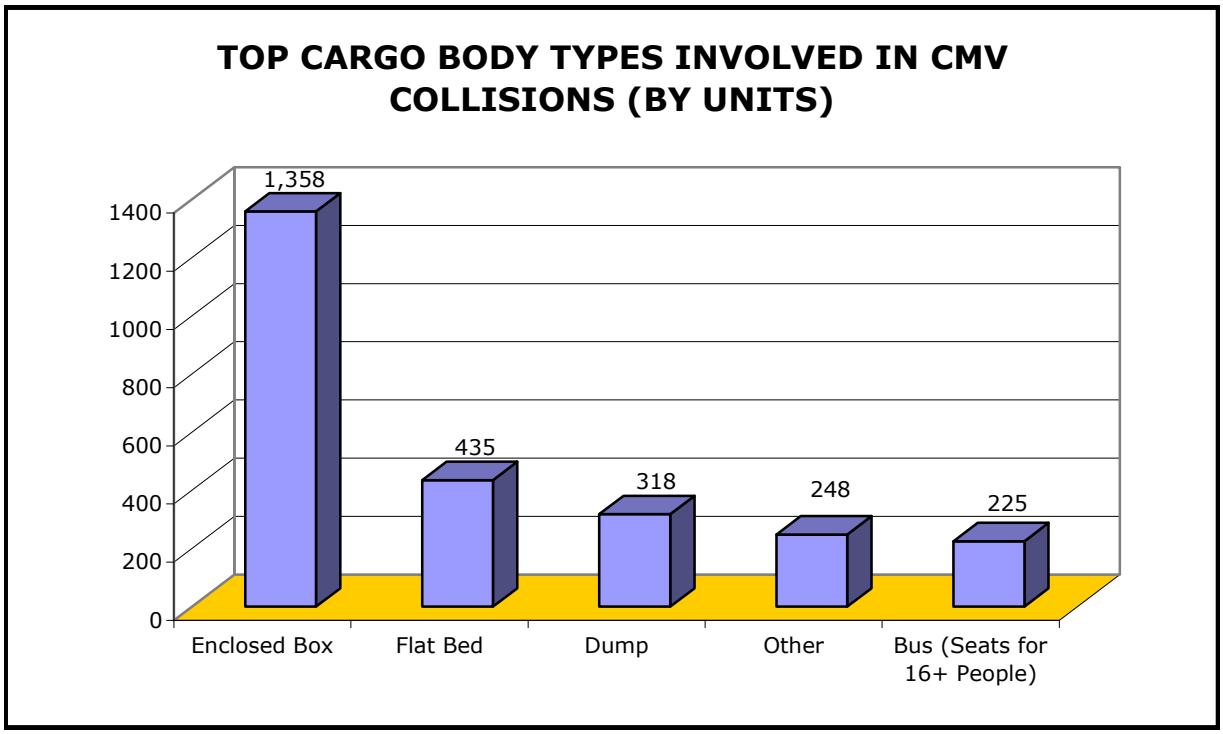
**This table includes all units involved in CMV collisions.

VEHICLE USE IN TRAFFIC COLLISIONS (EXCLUDES PEDESTRIANS)**

VEHICLE USE	COLLISION TYPE			TOTAL
	FATAL	INJURY	PDO*	
Personal	105	1,335	1,314	2,754
Transport Property	72	944	1,158	2,174
Construction/Maintenance	20	258	241	519
Transport Passenger	7	169	111	287
Logging Truck	6	64	63	133
Other	2	69	58	129
Wrecker or Tow	1	20	26	47
Government	0	11	26	37
Farm Use	1	4	13	18
Police	0	11	6	17
Fire Fighting	1	11	5	17
Ambulance	0	7	4	11
Driver Training	0	3	7	10
Military	0	1	3	4
TOTALS	**215**	**2,907**	**3,035**	**6,157**

*Property Damage Only

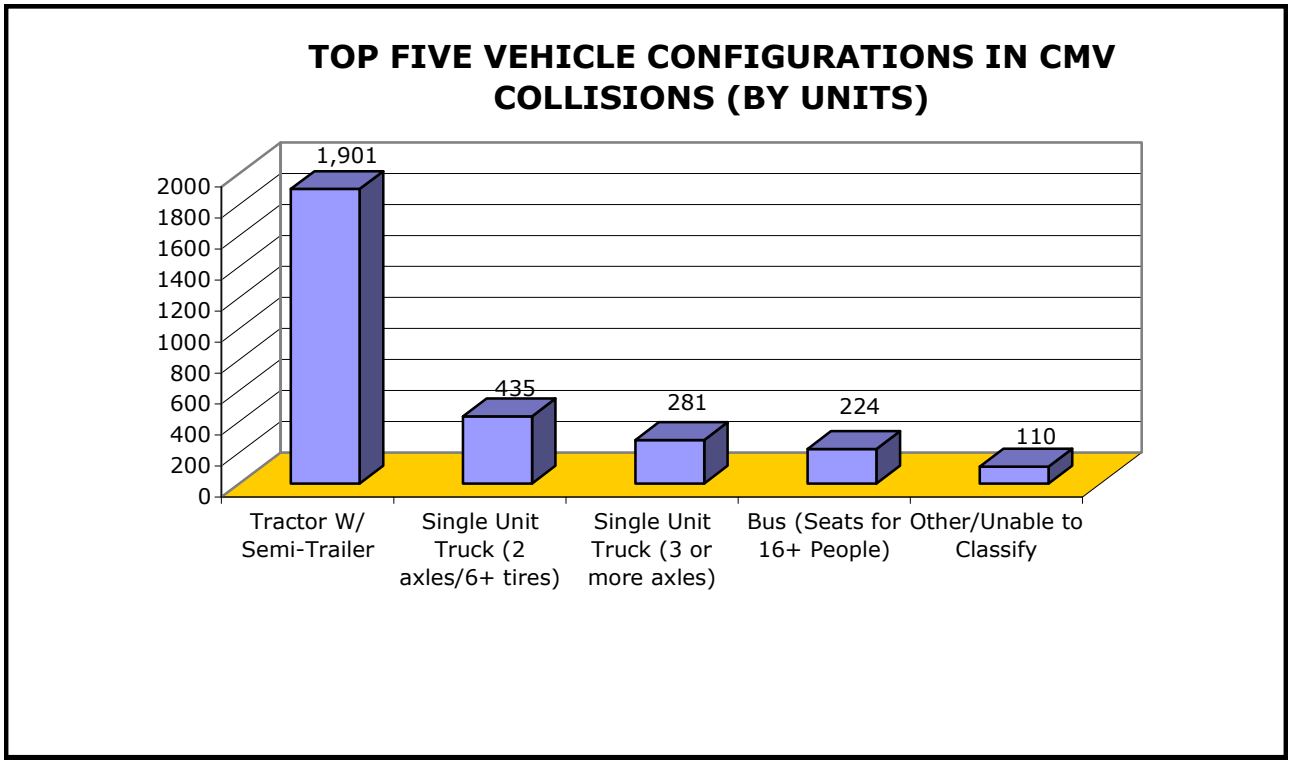
**Excluding pedestrians, this table includes all units involved in CMV collisions



The graph above shows the 5 largest groups for cargo body types of CMV's involved in commercial motor vehicle traffic collisions. The table below refers to all CMV units involved in collisions. 31% of the units involved in fatal collisions were classified as an "enclosed box" cargo body type.

CARGO BODY TYPE	COLLISION TYPE			TOTAL
	FATAL	INJURY	PDO*	
Enclosed Box	34	555	769	1,358
Flat Bed	13	199	223	435
Dump	12	161	145	318
Other	6	124	118	248
Bus (Seats for 16+ people)	6	137	82	225
Cargo Tank	9	76	68	153
Garbage/Refuse	5	56	53	114
Pole	5	48	56	109
Not Applicable	6	49	49	104
Grain, Chips, Gravel	5	33	37	75
Auto Transport	3	19	26	48
Concrete Mixer	2	20	13	35
Intermodal Container	1	14	12	27
Bus (Seats for 9 - 15 people)	0	18	6	24
Unknown/Hit and run	1	7	14	22
Missing**	0	3	4	7
Total	**108**	**1,519**	**1,675**	**3,302**

*Property Damage Only ** Missing data in the "Cargo Body Type" field



The graph above shows the top 5 categories of vehicle configurations for commercial motor vehicles involved in CMV traffic collisions. This number refers to the number of CMV units (vehicles). The chart below includes all of the categories for vehicle configuration (i.e., formation of the vehicle).

VEHICLE CONFIGURATIONS	COLLISION TYPE			TOTAL
	FATAL	INJURY	PDO*	
Tractor w/ Semi-Trailer	72	823	1,006	1,901
Single Unit Truck (2 axles/6+ tires)	12	203	220	435
Single Unit Truck (3 or more axles)	6	140	135	281
Bus (Seats for 16+ people)	5	138	81	224
Other/Unable to Classify	2	47	61	110
Truck Tractor Only (Bobtail)	6	53	48	107
Unknown/Hit and Run	1	37	51	89
Truck w/ Trailer	3	35	30	68
Tractor w/ Double Trailers	0	13	27	40
Bus (Seats for 9 - 15 people)	0	20	7	27
Light Truck (Only w/ Hazmat Placard)	1	7	4	12
Missing**	0	3	4	7
Tractor w/ Triple Trailers	0	0	1	1
Total	**108**	**1,519**	**1,675**	**3,302**

* Property Damage Only

** Missing data in the field of "Vehicle Configuration"

COLLISIONS INVOLVING TRUCK TRACTORS BY COUNTY: 1998 - 2002

	1998			1999			2000			2001			2002		
		Persons			Persons			Persons			Persons			Persons	
COUNTY	Total Coll.	Inj.	Killed	Total Coll.	Inj.	Killed	Total Coll.	Inj.	Killed	Total Coll.	Inj.	Killed	Total Coll.	Inj.	Killed
ABBEVILLE	9	4	0	6	3	0	9	5	0	11	10	2	8	3	2
AIKEN	129	61	11	133	68	6	132	54	4	109	59	7	145	62	3
ALLENDALE	19	16	1	13	12	0	15	7	1	12	4	2	9	1	1
ANDERSON	169	99	5	155	73	8	126	54	11	169	73	3	225	78	3
BAMBERG	17	8	0	18	14	1	14	7	0	11	6	0	11	7	0
BARNWELL	11	6	0	18	9	0	7	10	0	7	5	0	7	3	0
BEAUFORT	58	24	3	51	24	3	69	27	1	53	29	1	64	29	1
BERKELEY	87	29	2	108	59	3	119	58	2	110	57	2	129	46	5
CALHOUN	33	15	1	25	16	1	25	14	0	45	11	3	42	19	1
CHARLESTON	327	188	1	393	179	1	365	151	2	358	127	4	361	101	2
CHEROKEE	91	49	5	85	41	6	104	50	1	125	46	1	144	47	1
CHESTER	55	30	3	50	21	0	55	13	1	63	25	1	64	24	0
CHESTERFIELD	68	34	3	68	43	3	88	36	3	59	27	3	64	26	0
CLARENDON	42	11	2	44	11	5	68	31	5	38	32	3	45	20	3
COLLETON	69	28	1	80	35	5	72	33	2	76	56	6	84	34	0
DARLINGTON	69	34	2	66	42	4	66	57	2	64	26	2	71	50	2
DILLON	68	26	3	67	35	3	64	27	0	44	20	0	76	24	1
DORCHESTER	99	61	5	83	34	3	0	0	0	97	35	0	95	47	7
EDGEFIELD	18	6	2	19	5	1	23	6	1	22	19	2	12	5	0
FAIRFIELD	31	12	0	37	19	0	31	18	8	21	13	0	24	23	0
FLORENCE	171	72	8	154	71	2	169	75	5	169	83	3	149	46	1
GEORGETOWN	71	33	2	63	31	4	71	45	3	49	25	0	68	34	3
GREENVILLE	326	124	4	352	91	7	258	80	6	275	80	7	307	72	2
GREENWOOD	35	15	0	41	14	0	54	20	0	37	19	0	31	14	2
HAMPTON	28	4	1	22	4	1	21	7	0	19	12	0	19	11	3
HORRY	149	99	6	141	61	1	156	68	4	137	64	3	144	51	4
JASPER	78	40	7	88	28	6	72	17	4	67	34	1	103	49	1
KERSHAW	48	21	2	63	37	3	61	41	4	57	34	0	47	11	2
LANCASTER	47	22	4	56	17	3	56	28	2	43	20	2	48	17	4
LAURENS	57	27	1	46	17	1	52	18	1	55	25	3	82	31	0
LEE	23	12	0	18	2	1	20	11	0	21	9	0	34	47	0
LEXINGTON	167	62	3	198	71	5	200	89	3	210	94	1	200	69	1
MCCORMICK	9	5	0	9	5	0	10	8	0	9	6	0	9	2	0
MARION	45	29	5	39	28	1	50	35	2	37	14	4	45	14	3
MARLBORO	42	33	2	50	26	1	39	22	1	32	14	3	26	25	1
NEWBERRY	49	35	1	54	24	3	48	30	1	48	23	4	58	14	5
OCONEE	26	22	1	43	13	0	28	17	5	36	14	1	37	10	0
ORANGEBURG	117	66	4	152	71	6	154	87	4	131	63	2	167	62	8
PICKENS	32	15	1	38	11	0	35	16	2	22	5	0	25	8	0
RICHLAND	237	121	2	235	80	7	295	129	6	247	94	2	255	103	2
SALUDA	14	5	0	17	4	0	18	8	1	14	13	0	23	4	2
SPARTANBURG	262	110	4	301	126	3	288	94	4	270	93	6	270	102	2
SUMTER	78	57	5	79	34	2	76	38	1	56	35	2	62	26	3
UNION	18	7	0	17	5	0	22	14	0	25	12	0	21	9	1
WILLIAMSBURG	34	18	2	32	22	0	26	22	1	21	12	1	22	10	2
YORK	108	46	3	152	73	4	169	57	3	119	42	2	141	83	2
TOTAL	3,740	1,841	118	3,979	1,709	114	3,900	1,734	107	3,700	1,619	89	4,073	1,573	86

Part III – Passenger Vehicles

The following pages contain descriptive statistics regarding collisions involving passenger vehicles (i.e., school buses, commercial buses, and full size vans) in South Carolina for the year 2002. This includes applicable information regarding drivers who contributed to the collisions, the trend of collisions since 1998 and any other information necessary to obtain a better assessment of the safety of passenger vehicles.

- There were 353 collisions involving school buses in 2002. 140 or 40% of the school bus collisions occurred between the hours of 6 and 9 AM.

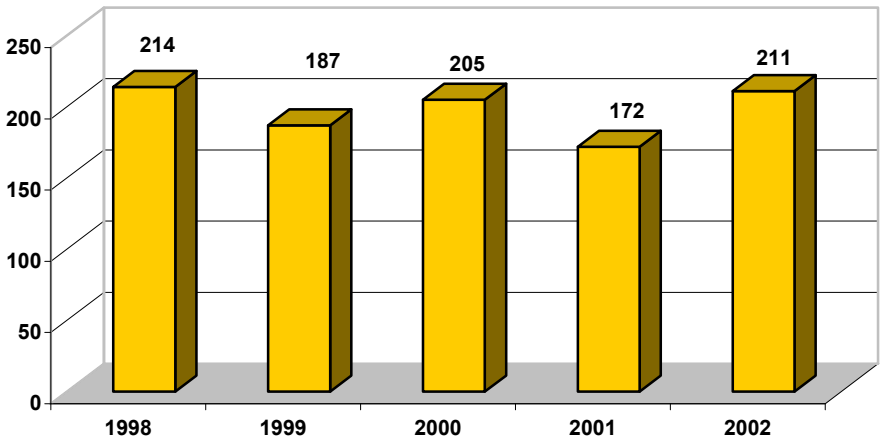
- There were 4 fatal collisions involving school buses. 1 out of 4, or 25% of the fatal collisions took place on every weekday except Tuesday.

- In 2002, there were 211 collisions involving (passenger) commercial buses; this is a 23% increase from the previous year. 48 or 22.7% of commercial bus collisions occurred on Friday.

- 36% of collisions involving commercial buses (77) happened between 3 and 6 PM.

- 78 out of 279 (30%) collisions involving full size vans happened between 3 and 6 PM. Also, 100%, or 2 out of 2, of the fatal collisions involving full size vans occurred during the same hours.

TRAFFIC COLLISIONS INVOLVING (PASSENGER) COMMERCIAL BUSES, 1998 - 2002



TRAFFIC COLLISIONS INVOLVING SCHOOL BUSES

COLLISIONS BY YEAR

YEAR	COLLISION TYPE				PERSONS**	
	Fatal	Injury	PDO*	Total	Killed	Injured
1998	2	115	184	301	2	453
1999	3	103	235	341	4	473
2000	2	113	228	343	3	479
2001	4	136	232	372	5	494
2002	4	120	229	353	4	427
TOTALS	**15**	**587**	**1,108**	**1,710**	**18**	**2,326**

* Property Damage Only

COLLISIONS BY MONTH

MONTH	COLLISION TYPE				PERSONS**	
	Fatal	Injury	PDO*	Total	Killed	Injured
January	0	8	20	28	0	25
February	1	9	22	32	1	33
March	0	18	23	41	0	45
April	1	9	23	33	1	19
May	1	8	23	32	1	42
June	0	4	10	14	0	6
July	0	1	2	3	0	1
August	0	14	25	39	0	37
September	0	15	23	38	0	37
October	1	18	28	47	1	100
November	0	13	22	35	0	72
December	0	3	8	11	0	10
TOTALS	**4**	**120**	**229**	**353**	**4**	**427**

* Property Damage Only

COLLISIONS BY LIGHT AND WEATHER CONDITIONS

LIGHT & WEATHER	COLLISION TYPE				PERSONS**	
	Fatal	Injury	PDO*	Total	Killed	Injured
Day & Clear/Cloudy	2	87	183	272	2	279
Dark & Clear/Cloudy	1	7	14	22	1	19
Day & Rain	1	17	22	40	1	84
Dark & Rain	0	7	7	14	0	43
Day & Other Weather	0	2	1	3	0	2
Dark & Other Weather	0	0	2	2	0	0
TOTALS	**4**	**120**	**229**	**353**	**4**	**427**

* Property Damage Only

**Includes all fatalities and injuries in the collision, not just to the school bus riders.

TRAFFIC COLLISIONS INVOLVING SCHOOL BUSES

COLLISIONS BY DAY OF WEEK

DAY OF WEEK	COLLISION TYPE				PERSONS**	
	Fatal	Injury	PDO*	Total	Killed	Injured
Sunday	0	0	2	2	0	0
Monday	1	24	38	63	1	91
Tuesday	0	27	52	79	0	58
Wednesday	1	29	48	78	1	96
Thursday	1	20	43	64	1	106
Friday	1	19	44	64	1	74
Saturday	0	1	2	3	0	2
TOTALS	**4**	**120**	**229**	**353**	**4**	**427**

* Property Damage Only

COLLISIONS BY TIME OF DAY

TIME OF DAY	COLLISION TYPE				PERSONS**	
	Fatal	Injury	PDO*	Total	Killed	Injured
12:01am-3:00am	0	1	1	2	0	1
3:01am-6:00am	0	1	1	2	0	2
6:01am-9:00am	3	50	87	140	3	204
9:01am-Noon	0	7	13	20	0	33
12:01pm-3:00pm	0	19	45	64	0	39
3:01pm-6:00pm	0	41	78	119	0	132
6:01pm-9:00pm	1	1	4	6	1	16
9:01pm-Midnight	0	0	0	0	0	0
TOTALS	**4**	**120**	**229**	**353**	**4**	**427**

* Property Damage Only

DRIVERS IN COLLISIONS WHO CONTRIBUTED TO COLLISION

UNITS INVOLVED	COLLISION TYPE			Totals
	Fatal	Injury	PDO*	
Bus Driver Contributed	0	46	95	141
Bus Driver Did Not Contribute	4	77	137	218
TOTAL SCHOOL BUS DRIVERS	**4**	**123**	**232**	**359**
Other Driver Contributed	4	69	132	205
Other Driver Did Not Contribute	2	48	93	143
TOTAL OTHER DRIVERS	**6**	**117**	**225**	**348**
TOTALS	**10**	**240**	**457**	**707**

* Property Damage Only

**Includes all fatalities and injuries in the collision, not just to the school bus riders.

TRAFFIC COLLISIONS INVOLVING COMMERCIAL BUSES

COLLISIONS BY YEAR

YEAR	COLLISION TYPE				PERSONS**	
	Fatal	Injury	PDO*	Total	Killed	Injured
1998	2	81	131	214	2	225
1999	2	70	115	187	2	252
2000	0	76	129	205	0	203
2001	3	53	116	172	5	165
2002	1	59	151	211	4	427
TOTALS	**8**	**339**	**642**	**989**	**13**	**1,272**

* Property Damage Only

COLLISIONS BY MONTH

MONTH	COLLISION TYPE				PERSONS**	
	Fatal	Injury	PDO*	Total	Killed	Injured
January	0	7	17	24	0	18
February	0	4	12	16	0	13
March	0	4	14	18	0	8
April	0	2	20	22	0	8
May	0	4	7	11	0	14
June	1	9	10	20	1	48
July	0	5	10	15	0	29
August	0	5	11	16	0	8
September	0	6	16	22	0	23
October	0	6	12	18	0	10
November	0	4	12	16	0	9
December	0	3	10	13	0	8
TOTALS	**1**	**59**	**151**	**211**	**1**	**196**

* Property Damage Only

COLLISIONS BY LIGHT AND WEATHER CONDITIONS

LIGHT & WEATHER	COLLISION TYPE				PERSONS**	
	Fatal	Injury	PDO*	Total	Killed	Injured
Day & Clear/Cloudy	1	41	105	147	1	136
Dark & Clear/Cloudy	0	8	13	21	0	22
Day & Rain	0	5	15	20	0	14
Dark & Rain	0	1	4	5	0	1
Day & Other Weather	0	1	8	9	0	2
Dark & Other Weather	0	3	6	9	0	21
TOTALS	**1**	**59**	**151**	**211**	**1**	**196**

* Property Damage Only

**Includes all fatalities and injuries in the collision, not just to the bus riders.

TRAFFIC COLLISIONS INVOLVING COMMERCIAL BUSES

COLLISIONS BY DAY OF WEEK

DAY OF WEEK	COLLISION TYPE				PERSONS**	
	Fatal	Injury	PDO*	Total	Killed	Injured
Sunday	0	2	6	8	0	2
Monday	0	12	23	35	0	44
Tuesday	1	7	29	37	1	39
Wednesday	0	3	19	22	0	17
Thursday	0	12	26	38	0	24
Friday	0	20	28	48	0	66
Saturday	0	3	20	23	0	4
TOTALS	**1**	**59**	**151**	**211**	**1**	**196**

* Property Damage Only

COLLISIONS BY TIME OF DAY

TIME OF DAY	COLLISION TYPE				PERSONS**	
	Fatal	Injury	PDO*	Total	Killed	Injured
12:01am-3:00am	0	1	3	4	0	12
3:01am-6:00am	0	1	0	1	0	5
6:01am-9:00am	1	10	23	34	1	32
9:01am-Noon	0	7	19	26	0	24
12:01pm-3:00pm	0	10	31	41	0	22
3:01pm-6:00pm	0	22	55	77	0	81
6:01pm-9:00pm	0	4	12	16	0	15
9:01pm-Midnight	0	4	8	12	0	5
TOTALS	**1**	**59**	**151**	**211**	**1**	**196**

* Property Damage Only

DRIVERS IN COLLISIONS WHO CONTRIBUTED TO COLLISION

UNITS INVOLVED	COLLISION TYPE			Totals
	Fatal	Injury	PDO*	
Bus Driver Contributed	0	26	70	96
Bus Driver Did Not Contribute	1	36	87	124
TOTAL COMMERCIAL BUS DRIVERS	**1**	**62**	**157**	**220**
Other Driver Contributed	1	30	78	109
Other Driver Did Not Contribute	0	33	73	106
TOTAL OTHER DRIVERS	**1**	**63**	**151**	**215**
TOTALS	**2**	**125**	**308**	**435**

* Property Damage Only

**Includes all fatalities and injuries in the collision, not just to the bus riders.

TRAFFIC COLLISIONS INVOLVING FULL SIZE VANS

COLLISIONS BY YEAR

YEAR	COLLISION TYPE				PERSONS**	
	Fatal	Injury	PDO*	Total	Killed	Injured
1998	1	107	158	266	1	259
1999	3	124	187	314	10	274
2000	2	86	194	282	2	218
2001	3	98	163	264	3	232
2002	2	79	198	279	2	206
TOTALS	**11**	**494**	**900**	**1,405**	**18**	**1,189**

* Property Damage Only

COLLISIONS BY MONTH

MONTH	COLLISION TYPE				PERSONS**	
	Fatal	Injury	PDO*	Total	Killed	Injured
January	0	6	15	21	0	10
February	1	3	16	20	1	15
March	0	8	28	36	0	20
April	0	10	22	32	0	33
May	0	6	13	19	0	12
June	0	7	20	27	0	13
July	0	12	14	26	0	32
August	0	10	15	25	0	29
September	0	4	12	16	0	14
October	1	5	19	25	1	14
November	0	7	13	20	0	12
December	0	1	11	12	0	2
TOTALS	**2**	**79**	**198**	**279**	**2**	**206**

* Property Damage Only

COLLISIONS BY LIGHT AND WEATHER CONDITIONS

LIGHT & WEATHER	COLLISION TYPE				PERSONS**	
	Fatal	Injury	PDO*	Total	Killed	Injured
Day & Clear/Cloudy	2	62	151	215	2	172
Dark & Clear/Cloudy	0	5	14	19	0	14
Day & Rain	0	8	20	28	0	16
Dark & Rain	0	2	5	7	0	2
Day & Other Weather	0	1	2	3	0	1
Dark & Other Weather	0	1	6	7	0	1
TOTALS	**2**	**79**	**198**	**279**	**2**	**206**

* Property Damage Only

**Includes all fatalities and injuries in the collision, not just to the van riders.

TRAFFIC COLLISIONS INVOLVING FULL SIZE VANS

COLLISIONS BY DAY OF WEEK

DAY OF WEEK	COLLISION TYPE				PERSONS**	
	Fatal	Injury	PDO*	Total	Killed	Injured
Sunday	0	3	14	17	0	9
Monday	0	18	31	49	0	42
Tuesday	0	16	36	52	0	35
Wednesday	1	14	28	43	1	36
Thursday	1	14	40	55	1	34
Friday	0	8	35	43	0	36
Saturday	0	6	14	20	0	14
TOTALS	**2**	**79**	**198**	**279**	**2**	**206**

* Property Damage Only

COLLISIONS BY TIME OF DAY

TIME OF DAY	COLLISION TYPE				PERSONS**	
	Fatal	Injury	PDO*	Total	Killed	Injured
12:01am-3:00am	0	0	3	3	0	0
3:01am-6:00am	0	0	3	3	0	0
6:01am-9:00am	0	9	29	38	0	21
9:01am-Noon	0	13	38	51	0	15
12:01pm-3:00pm	0	22	47	69	0	58
3:01pm-6:00pm	2	22	54	78	2	73
6:01pm-9:00pm	0	5	14	19	0	16
9:01pm-Midnight	0	8	10	18	0	23
TOTALS	**2**	**79**	**198**	**279**	**2**	**206**

* Property Damage Only

DRIVERS IN COLLISIONS WHO CONTRIBUTED TO COLLISION

UNITS INVOLVED	COLLISION TYPE			Totals
	Fatal	Injury	PDO*	
Van Driver Contributed	1	30	92	123
Van Driver Did Not Contribute	2	49	107	158
TOTAL VAN DRIVERS	**3**	**79**	**199**	**281**
Other Driver Contributed	1	47	108	205
Other Driver Did Not Contribute	0	48	100	143
TOTAL OTHER DRIVERS	**1**	**95**	**208**	**304**
TOTALS	**4**	**174**	**407**	**585**

* Property Damage Only

**Includes all fatalities and injuries in the collision, not just to the van riders.

The bus driver ran into the back of a tractor trailer. There were no fatalities in this collision.

The driver of this vehicle crossed the median and hit a truck tractor head on.

Part IV - Collision Consequences

The consequences of traffic collisions extend beyond those persons directly affected and are measured in both human and economic terms. The economic costs consider that portion of financial loss born by society, i.e. medical costs, property damage, lost productivity, etc. Opposite the economic losses are the intangible human costs associated with the grief and suffering that accompany a traffic death or injury. On the following pages, statistics related to estimated economic cost, traffic injuries, fatalities and restraint usage are presented. Some important observations in the 2002 data are as follows:

- Economic loss from CMV involved collisions increased 8.7% from 2001 to 2002.
- Males accounted for 100% of the fatalities of CMV occupants and 63% of the fatalities of Non-CMV occupants, while females accounted for 0% and 37% respectively.
- 24% of Non-CMV occupant fatalities were persons under age 25. There were 10 CMV occupant fatalities and one person was under 25.
- There were 17 CMV occupants totally ejected from the vehicles in which they were riding. Of these, 1 or 5.9% was killed. Of the 4,058 CMV occupants not ejected, 7 or 0.17% were killed.
- There were 19 Non-CMV occupants in CMV collisions that were totally ejected from their vehicles. Of these, 10 or 52.6% were killed. Of the 3,900 Non-CMV occupants not ejected, 84 or 2.2% were killed.
- In CMV collisions, because of the sheer size and weight of the vehicles involved, restraint usage becomes a major factor in predicting injury severity. Of the 278 Non-CMV occupants in CMV collisions that were not restrained, 42 or 15% sustained fatal injuries. Of the 3,558 Non-CMV occupants that were using some form of restraint device, 50 or 1.4% sustained fatal injuries.
- 0.7% of CMV occupants that were not using any type of restraint equipment sustained fatal injuries. Almost none of the restrained CMV occupants were killed (only 1 out of 3,242).

CMV VICTIMS INVOLVED IN TRAFFIC COLLISIONS TRANSPORTED TO MEDICAL FACILITY

TRANSPORTED TO MEDICAL FACILITY	INJURY TYPE					TOTAL
	NOT INJURED	POSSIBLE INJURY	NON-IN-CAPACITATING	IN-CAPACITATING	FATAL	
YES						
Males	33	350	151	47	8	589
Females	8	209	62	8	0	287
Not Specified	2	0	0	0	0	2
YES SUBTOTAL	**43**	**559**	**213**	**55**	**8**	**878**
NO						
Males	2,688	88	12	0	2	2,790
Females	358	13	1	0	0	372
Not Specified	73	0	0	0	0	73
NO SUBTOTAL	**3,119**	**101**	**13**	**0**	**2**	**3,235**
UNKNOWN						
Males	12	1	0	0	0	13
Females	9	1	0	0	0	10
Not Specified	22	0	0	0	0	22
UNKNOWN SUBTOTAL	**43**	**2**	**0**	**0**	**0**	**45**
TOTALS	**3,205**	**662**	**226**	**55**	**10**	**4,158**

NON-CMV VICTIMS INVOLVED IN TRAFFIC COLLISIONS WITH A CMV TRANSPORTED TO MEDICAL FACILITY

TRANSPORTED TO MEDICAL FACILITY	INJURY TYPE					TOTALS
	NOT INJURED	POSSIBLE INJURY	NON-IN-CAPACITATING	IN-CAPACITATING	FATAL	
YES						
Males	47	369	178	123	50	767
Females	33	469	193	93	30	818
Not Specified	0	0	0	0	0	0
YES SUBTOTAL	**80**	**838**	**371**	**216**	**80**	**1,585**
NO						
Males	1,342	62	24	2	19	1,449
Females	940	58	12	3	9	1,022
Not Specified	48	0	0	0	0	48
NO SUBTOTAL	**2,330**	**120**	**36**	**5**	**28**	**2,519**
UNKNOWN						
Males	2	0	2	1	0	5
Females	1	0	0	0	1	2
Not Specified	14	0	0	1	0	15
UNKNOWN SUBTOTAL	**17**	**0**	**2**	**2**	**1**	**22**
TOTALS	**2,427**	**958**	**409**	**223**	**109**	**4,126**

TRAFFIC COLLISION VICTIM PROFILE
INJURIES* BY AGE AND SEX
CMV VICTIMS ONLY

SEX	AGE	NOT INJURED	POSSIBLE INJURY	NON-INCAPACI-TATING	INCAPACI-TATING	FATAL	TOTALS
MALE	Under 4	6	1	0	0	0	7
	4-14	60	83	3	1	0	147
	15-24	169	69	12	4	1	255
	25-34	619	69	35	12	2	737
	35-44	737	94	33	12	4	880
	45-54	660	80	41	10	0	791
	55-64	387	35	33	7	2	464
	65-74	68	6	6	1	1	82
	75-80	9	0	0	0	0	9
	85+	2	0	0	0	0	2
	UNKNOWN AGE	16	2	0	0	0	18
	SUBTOTAL	**2,733**	**439**	**163**	**47**	**10**	**3,392**
FEMALE	Under 4	1	3	1	0	0	5
	4-14	58	97	9	0	0	164
	14-24	38	48	9	2	0	97
	25-34	64	20	7	1	0	92
	35-44	97	22	8	4	0	131
	45-54	74	21	19	1	0	115
	55-64	28	8	8	0	0	44
	65-74	7	2	0	0	0	9
	75-84	2	0	0	0	0	2
	85+	0	0	0	0	0	0
	UNKNOWN AGE	6	2	2	0	0	10
	SUBTOTAL	**375**	**223**	**63**	**8**	**0**	**669**
GRAND TOTAL		**3,108**	**662**	**226**	**55**	**10**	**4,061**

* See Definitions for a description of each injury type.

There were 97 victims whose sex was unspecified. This accounts for the difference in the numbers on this page and the previous page (for CMV victims).

TRAFFIC COLLISION VICTIM PROFILE
INJURIES* BY AGE AND SEX
NON-CMV VICTIMS ONLY

SEX	AGE	NOT INJURED	POSSIBLE INJURY	NON-INCAPACI-TATING	INCAPACI-TATING	FATAL	TOTALS
MALE	Under 4	39	7	3	3	0	52
	4-14	97	38	13	12	1	161
	15-24	339	98	43	29	19	528
	25-34	241	82	45	20	16	404
	35-44	237	73	28	20	9	367
	45-54	182	57	28	18	7	292
	55-64	121	33	22	8	6	190
	65-74	72	23	14	7	7	123
	75-84	33	15	4	6	4	62
	85+	6	4	1	1	0	12
	UNKNOWN AGE	24	1	3	2	0	30
	SUBTOTAL	**1,391**	**431**	**204**	**126**	**69**	**2,221**
FEMALE	Under 4	43	17	2	1	0	63
	4-14	86	39	9	3	1	138
	14-24	222	134	48	26	5	435
	25-34	182	90	42	10	4	328
	35-44	159	90	35	15	8	307
	45-54	113	67	30	13	5	228
	55-64	74	37	14	14	6	145
	65-74	54	34	12	9	5	114
	75-84	23	15	9	4	4	55
	85+	3	2	0	1	0	6
	UNKNOWN AGE	15	2	4	0	2	23
	SUBTOTAL	**974**	**527**	**205**	**96**	**40**	**1,842**
GRAND TOTAL		**2,365**	**958**	**409**	**222**	**109**	**4,063**

*See definitions for a description of each injury type.

There were 63 victims whose sex was unspecified. This accounts for the difference in the numbers on this page and page 55 (non-cmv victims).

EJECTION STATUS/LOCATION AFTER IMPACT
CMV OCCUPANTS* ONLY

EJECTION STATUS	LOCATION AFTER IMPACT	INJURY TYPE					TOTALS
		NOT INJURED	POSSIBLE INJURY	NON-IN-CAPACITA-TING	IN-CAPACITA-TING	FATAL	
NOT EJECTED	Not Trapped	3,110	610	204	28	1	3,953
	Extricated (Mech Means)	1	29	8	16	5	59
	Freed (Non-Mech)	7	7	6	4	0	24
	Not Applicable	20	1	0	0	1	22
	Unknown	0	0	0	0	0	0
NOT EJECTED TOTAL		**3,138**	**647**	**218**	**48**	**7**	**4,058**
TOTALLY EJECTED	Not Trapped	4	4	1	4	0	13
	Extricated (Mech Means)	0	0	0	0	1	1
	Freed (Non-Mech)	0	0	1	0	0	1
	Not Applicable	0	1	1	0	0	2
	Unknown	0	0	0	0	0	0
TOTALLY EJECTED TOTAL		**4**	**5**	**3**	**4**	**1**	**17**
PARTIALLY EJECTED	Not Trapped	3	0	1	0	1	5
	Extricated (Mech Means)	0	1	0	1	0	2
	Freed (Non-Mech)	0	0	0	1	0	1
PARTIALLY EJECTED TOTAL		**3**	**1**	**1**	**2**	**1**	**8**
NOT APPLICABLE	Not Trapped	6	1	2	0	0	9
	Freed (Non-Mech)	0	0	0	0	0	0
	Not Applicable	13	8	1	0	0	22
NOT APPLICABLE TOTAL		**19**	**9**	**3**	**0**	**0**	**31**
UNKNOWN	Not Trapped	0	0	0	0	1	1
	Unknown	35	0	1	0	0	36
UNKNOWN TOTAL		**35**	**0**	**1**	**0**	**1**	**37**
GRAND TOTAL		**3,199**	**662**	**226**	**54**	**10**	**4,151**

*Includes occupants seated inside the passenger compartment of the vehicle.

EJECTION STATUS/LOCATION AFTER IMPACT

NON-CMV OCCUPANTS* ONLY

EJECTION STATUS	LOCATION AFTER IMPACT	INJURY TYPE					TOTALS
		NOT INJURED	POSSIBLE INJURY	NON-IN-CAPACITA-TING	IN-CAPACITA-TING	FATAL	
NOT EJECTED	Not Trapped	2,282	890	351	126	36	3,685
	Extricated (Mech Means)	3	16	23	50	45	137
	Freed (Non-Mech)	4	10	16	20	2	52
	Not Applicable	12	5	3	0	1	21
	Unknown	0	5	0	0	0	5
NOT EJECTED TOTAL		**2,301**	**926**	**393**	**196**	**84**	**3,900**
TOTALLY EJECTED	Not Trapped	2	1	1	4	7	15
	Not Applicable	0	0	0	0	3	3
	Freed (Non-Mech)	0	0	0	1	0	1
	Unknown	0	0	0	0	0	0
TOTALLY EJECTED TOTAL		**2**	**1**	**1**	**5**	**10**	**19**
PARTIALLY EJECTED	Not Trapped	2	0	1	0	0	3
	Extricated (Mech Means)	0	0	0	1	5	6
	Freed (Non-Mech)	0	0	0	0	0	0
PARTIALLY EJECTED TOTAL		**2**	**0**	**1**	**1**	**5**	**9**
NOT APPLICABLE	Not Trapped	2	0	0	0	0	2
	Extricated (Mech Means)	0	0	0	0	3	3
	Freed (Non-Mech)	0	0	0	0	0	0
	Not Applicable	19	2	0	0	0	21
NOT APPLICABLE TOTAL		**21**	**2**	**0**	**0**	**3**	**26**
UNKNOWN	Not Trapped	0	0	0	0	0	0
	Extricated (Mech Means)	0	0	0	1	0	1
	Unknown	32	2	0	6	1	41
UNKNOWN TOTAL		**32**	**2**	**0**	**7**	**1**	**42**
GRAND TOTAL		**2,358**	**931**	**395**	**209**	**103**	**3,996**

*Includes occupants of cars, trucks,and vans.

INJURY SEVERITY BY OCCUPANT RESTRAINT USAGE
CMV OCCUPANTS* ONLY

RESTRAINT USAGE	INJURY TYPE					TOTALS
	NOT INJURED	POSSIBLE INJURY	NON-IN-CAPACITA-TING	IN-CAPACITA-TING	FATAL	
NO RESTRAINT USED						
None Used	281	340	79	19	5	724
TOTAL - NO RESTRAINT USED	**281**	**340**	**79**	**19**	**5**	**724**
RESTRAINT USED						
Shoulder Belt Only Used	22	2	1	0	0	25
Lap Belt Only Used	233	44	11	2	0	290
Shoulder & Lap Belt Used	2,496	253	130	28	1	2,908
Child Safety Seat Used	2	2	0	0	0	4
Other	3	10	2	0	0	15
TOTAL - RESTRAINT USED	**2,756**	**311**	**144**	**30**	**1**	**3,242**
UNKNOWN RESTRAINT USAGE	**162**	**11**	**3**	**5**	**4**	**185**
GRAND TOTAL	**3,199**	**662**	**226**	**54**	**10**	**4,151**

*Includes occupants seated inside the passenger compartment of the vehicle.

INJURY SEVERITY BY OCCUPANT RESTRAINT USAGE

NON-CMV OCCUPANTS* ONLY

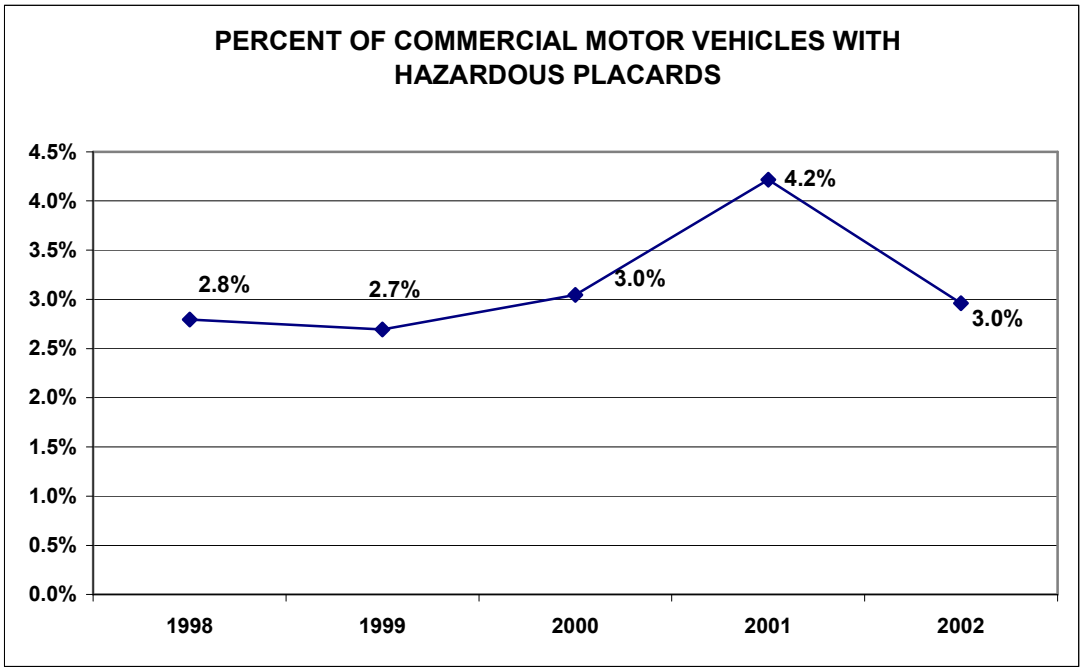
RESTRAINT USAGE	INJURY TYPE					TOTALS
	NOT INJURED	POSSIBLE INJURY	NON-IN-CAPACITA-TING	IN-CAPACITA-TING	FATAL	
NO RESTRAINT USED						
None Used	82	72	47	35	42	278
TOTAL - NO RESTRAINT USED	**82**	**72**	**47**	**35**	**42**	**278**
RESTRAINT USED						
Shoulder Belt Only	7	12	3	4	2	28
Lap Belt Only	63	16	5	6	0	90
Shoulder & Lap Belt	2,039	776	317	150	48	3,330
Child Safety Seat	77	27	4	2	0	110
Other	0	0	0	0	0	0
TOTAL - RESTRAINT USED	**2,186**	**831**	**329**	**162**	**50**	**3,558**
UNKNOWN RESTRAINT USAGE	**90**	**28**	**19**	**12**	**11**	**160**
GRAND TOTAL	**2,358**	**931**	**395**	**209**	**103**	**3,996**

*Includes occupants of passenger cars, trucks and vans seated inside the passenger compartment of vehicle.

Part V – Hazardous Materials

The movement of hazardous materials in commerce is necessary to maintain economic vitality and meet consumer demands. This shall be conducted in a safe and efficient manner. Hazardous material, by definition, is any substance used in making items that can be potentially dangerous to human beings or the environment.

Taking into account the "9-1-1" incidents, it has become even more important to evaluate the risk analysis of hazardous materials. In 2002, there were 103 CMV's with hazard placards involved in collisions; 91 vehicles were carrying hazardous materials when a collision occurred.



HAZARDOUS MATERIAL INVOLVEMENT IN 2002

VEHICLE CARRYING HAZARDOUS MATERIALS	FATAL		INJURY		PDO*		TOTAL UNITS	
	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
YES	5	4.6%	53	3.5%	33	2.0%	91	2.8%
NO	102	94.4%	1,422	93.6%	1,561	93.2%	3,085	93.4%
UNKNOWN/HIT & RUN	1	0.9%	44	2.9%	81	4.8%	126	3.8%
TOTAL	**108**	**100.0%**	**1,519**	**100.0%**	**1,675**	**100.0%**	**3,302**	**100.0%**

VEHICLE WITH HAZARDOUS MATERIAL PLACARD	FATAL		INJURY		PDO*		TOTAL UNITS	
	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
YES	5	4.6%	56	3.7%	42	2.5%	103	3.1%
NO	98	90.7%	1,396	91.9%	1,528	91.2%	3,022	91.5%
UNKNOWN/HIT & RUN	5	4.6%	67	4.4%	105	6.3%	177	5.4%
TOTAL	**108**	**100.0%**	**1,519**	**100.0%**	**1,675**	**100.0%**	**3,302**	**100.0%**

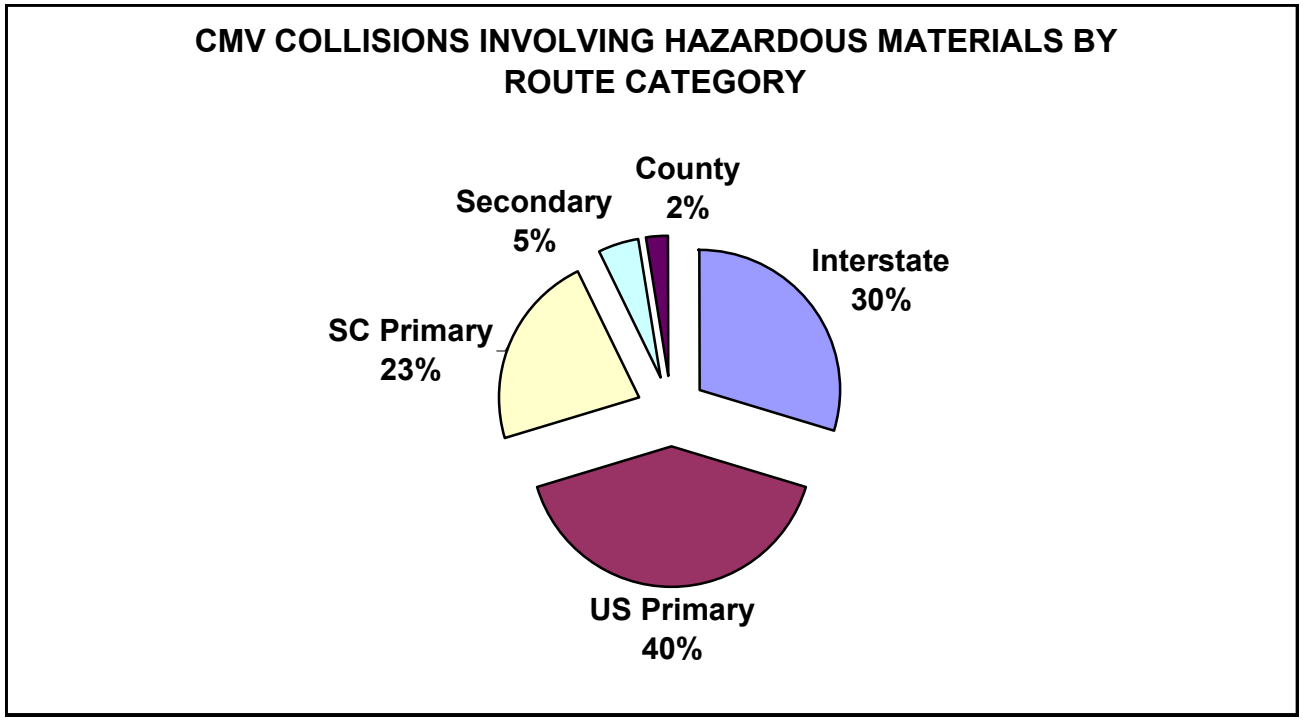
HAZARDOUS MATERIAL RELEASED FROM VEHICLE	FATAL		INJURY		PDO*		TOTAL UNITS	
	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
YES	3	2.8%	12	0.8%	3	0.2%	18	0.5%
NO	103	95.4%	1,432	94.3%	1,592	95.0%	3,127	94.7%
UNKNOWN/HIT & RUN	2	1.9%	75	4.9%	80	4.8%	157	4.8%
TOTAL	**108**	**100.0%**	**1,519**	**100.0%**	**1,675**	**100.0%**	**3,302**	**100.0%**

Note: The numbers in the charts above are the number of vehicles (units) involved in CMV collisions.

CMV COLLISIONS INVOLVING HARZARDOUS MATERIALS BY ROUTE CATEGORY

ROUTE CATEGORY	CRASHES	% CRASHES	HAZMAT RELEASED	% HAZMAT RELEASED
INTERSTATE	25	29.8%	5	29.4%
US PRIMARY	34	40.5%	5	29.4%
SC PRIMARY	19	22.6%	5	29.4%
SECONDARY	4	4.8%	2	11.8%
COUNTY	2	2.4%	0	0.0%
TOTAL	**84**	**100.0%**	**17**	**100.0%**

40% of CMV collisions involving vehicles carrrying hazardous materials occurred on US Primary roadways. 30% of commercial vehicle collisions involving vehicles carrying hazardous materials occurred on Interstates. However, there was a three-way tie for the highest number of CMV collisions where there was a hazmat release between Interstates, US Primaries and SC Primaries, with 29.4% each.



APPENDIX

AUTOCARRIER TRAILER

CARGO TANK

CONCRETE MIXER

DUMP TRAILER

GARBAGE TRUCK

LOG (POLE) TRAILER

D.P.S. USE ONLY	Page # / Of:	SOUTH CAROLINA TRAFFIC COLLISION REPORT FORM TR-310 (Rev. 01/2001)	# Of Units	Amended - Attach Copy of Original Report / Corrected	Notified	Arrived

Date	Time	County	1- Interstate 4- Secondary 2- US Primary 5- County 3- SC Primary	On	Collision Location (Rt. # / Name)	0-Main 6- 2-Alternate 7-Business 5-Spur	Miles:	Dir. N E S W	In / Near City or Town of:

Lane # / Dir. #	Of	N E S W	Distance Offset Miles Feet	Direction N E S W	1- Interstate 4- Secondary 2- US Primary 5- County 3- SC Primary 6- Other	From	Base Intersection (Rt. # / Name)	0-Main 6- 2-Alternate 7-Business 5-Spur 9-Other	ASRU code	MP/Grid
R.R. Id.	From Ramp Only N E S W 1- Entrance 2- Exit	To N E S W	1- Interstate 4- Secondary 2- US Primary 5- County 3- SC Primary 6- Other	Toward	Second Intersection (Rt. # / Name)	0-Main 6- 2-Alternate 7-Business 5-Spur 9-Other	Latitude	o ' "		
							Longitude	o ' "		

K- 624151

Driver/Pedestrian's Full Name			
Unit #	Sex	Race	Street/R.F.D.
	Birth Date		City, State, & Zip
State	Driver's License #		Insurance Company:
Year	Body	Vehicle Make	VIN #
State	Year	License Plate #	Owner's D.L. #
Home Telephone ( )	Owner's Full Name		
Bus. Telephone ( )	Street/R.F.D.		
Contributed To Collision Yes No	City, State, & Zip		

Estimated Speed	Speed Limit	C.D.L. Req: Yes No	T/B S Req: Yes No	Alc/Drg info (see back): Yes No			
		Summons #	Code	Summons #	Code	Towed By	

K- 624152

Driver/Pedestrian's Full Name			
Unit #	Sex	Race	Street/R.F.D.
	Birth Date		City, State, & Zip
State	Driver's License #		Insurance Company:
Year	Body	Vehicle Make	VIN #
State	Year	License Plate #	Owner's D.L. #
Home Telephone ( )	Owner's Full Name		
Bus. Telephone ( )	Street/R.F.D.		
Contributed To Collision Yes No	City, State, & Zip		

Estimated Speed	Speed Limit	C.D.L. Req: Yes No	T/B S Req: Yes No	Alc/Drg info (see back): Yes No			
		Summons #	Code	Summons #	Code	Towed By	

K- 624153

Driver/Pedestrian's Full Name			
Unit #	Sex	Race	Street/R.F.D.
	Birth Date		City, State, & Zip
State	Driver's License #		Insurance Company:
Year	Body	Vehicle Make	VIN #
Dir. of Travel:	Unit 1: N S E W	Unit 2: N S E W	Unit 3: N S E W

State	Year	License Plate #	Owner's D.L. #
Home Telephone ( )	Owner's Full Name		
Bus. Telephone ( )	Street/R.F.D.		
Contributed To Collision Yes No	City, State, & Zip		

Estimated Speed	Speed Limit	C.D.L. Req: Yes No	T/B S Req: Yes No	Alc/Drg info (see back): Yes No			
		Summons #	Code	Summons #	Code	Towed By	

North

Unit 1 Dam.	Unit 2 Dam.	Unit 3 Dam.	Prop.Dam. 1	Prop. Dam. 2
$	$	$	$	$

Property Owner/Witness:	Property Owner/Witness:
Address	Address
State Zip: Phone	State Zip: Phone

Photo: Y N

Describe What Happened (Refer to Units by Number)

NOTICE - THE TR-310 IS FOR STATISTICAL REPORTING PURPOSES ONLY AND IS A REFLECTION OF THE OFFICER'S BEST KNOWLEDGE, OPINION, AND BELIEF COVERING THE COLLISION. BUT NO WARRANTY IS MADE AS TO THE FACTUAL ACCURACY THEREOF

Investigating Officer's Name	Rank	Badge #	Code	Date	Reviewer's Name	Rank	Internal Agency Code

Unit:	Date of Birth	Sex:	Race	INJ:	Seat:	R/SD	A.B.D.	Eject	LAI:	Tran:	Name	Street Address	Zip Code

Race: A - Asian/Pacific Islander; B - African American; H - Hispanic; I - Alaskan Native or American Indian; O - Other; U - Unk.; W - Caucasian

a) Injury Status: 0- Not Injured; 1- Possible; 2- Non-incapacitating; 3- Incapacitating; 4- Fatal

Seating Loc.: 01 02 03 / 04 05 06 / 07 08 09; 20- Pedestrian; 30- Trailing Unit; 40- Bus or Van (4th row or Higher); 50- Other Enclosed Area (nontrailing); 51- Other Unenclosed Area (nontrailing); 60- Sleeper of Cab; 70- Riding on Unit Exterior; 80- Lap; 99- Unk./NA

Restraint/Safety Device: 00- None Used; 11- Shoulder; 12- Lap Belt Only; 13- Shoulder & Lap Belt; 21- Child Safety Seat; 88- Other; 99- Unk.

Air Bag Deployment / Switch

a) 1-Deployed Fror; 2-Deployed Side; 3-Deployed Both; 4-Not Deployed; 7-Not Applicable; 9-Deployment Unk.

b) 1- Switch in On Positior; 2- Switch in Off Positior; 3- No Switch; 9- Unknown

Ejection: 1- Not Ejected; 2- Part. Ejected; 3-Tot. Ejected; 7- Not App.; 9- Unk.

b) Motorcycle Only

Head Injury: 1-Yes 2-No

Location After Impact: 1- Not Trapped; 2- Extricated (Mechanical Means); 3- Freed (non-mech.); 4- Not Applicable; 9- Unknown

a) Transported to Medical Facility: 1- Yes; 2- No; 3- Unknown

b) By: 1- EMS; 2- Police; 8- Other; 9- Unk.

Pedestrian, Motor/Pedalcycle Only: 31-Helmet; 41- Protective Pads; 51-Reflective Clothing; 61-Lighting

Sequence of Events

Mail Orig. TR-310 to: Office of Financial Responsibility, PO Box 1498, Columbia, SC 29216

Non-Collision: 01- Cargo/Equip Loss or Shift; 02- Cross Median/Center; 03- Downhill Runaway; 04- Equipment Failure; 05- Fire/Explosion; 06- Immersion; 07- Jackknife; 08- Overturn/Rollover; 09- Ran off Road Left; 10- Ran off Road Right

Collision: Not Fixed: 20- Animal (Deer Only); 21- Animal (All Other); 22- Motor Veh. (In Transport); 23- Motor Veh. (Stopped); 24- Motor Veh. (Other Roadway); 25- Motor Veh. (Parked); 26- Pedalcycle; 27- Pedestrian; 28- Railway Veh.; 29- Work Zone Maint. Equip.; 38- Other Movable Object; 39- Unk. Movable Object

Collision: Fixed Object: 40- Bridge Overhead Structure; 41- Bridge Parapet End; 42- Bridge Pier or Abutment; 43- Bridge Rail; 44- Culvert; 45- Curb; 46- Ditch; 47- Embankment; 48- Equipment; 49- Fence; 50-Guardrail End; 51- Guardrail Face; 52- Highway Traffic Sign Post; 53- Impact Attenuator/Crash Cushion; 54- Light/Luminaire Support; 55- Mail Box; 56- Median Barrier; 57- Overhead Sign Support; 58- Other (Post, Pole, Support, Etc.); 59- Other (Wall, Building, Tunnel, Etc.); 60- Tree; 61- Utility Pole; 62- Work Zone Maint. Equipment; 68- Other; 69- Unk.

Event 1	Event 2	Event 3	Event 4	Most Hrmfl	1st Hrmfl
1	1	1	1	1	
2	2	2	2	2	
3	3	3	3	3	

11- Separation of Units; 12- Spill (Two-Wheeled Veh.); 18- Other Noncollision; 19- Unk. Non-collision

Manner of Collision (Struck Veh.): 00- Not Coll. w/ Motor Veh.; 10- Rear End; 20- Head On; 30- Rear-to-Rear; 41- Angle (↘ | ↙); 42- Angle (→ | ←); 43- Angle (↗ | ↖); 50- Sideswipe Same Dir.; 60- Sideswipe Opposite Dir.; 70- Backed Into; 99- Unknown

1st / Most Deformed Area

1st Deformed 1 2 3 — **Most Deformed** 1 2 3

21- Pedestrian; 81- None; 92- Rollover; 93- Total; 94-Under Carriage; 98- Other; 99- Unk.

Vehicle Type: 01- Automobile; 12- Pickup Truck; 13- Truck Tractor; 14- Other Truck; 15- Full Size Van; 16- Mini Van; 17- Sport Utility; 25- Motorcycle; 26- Other Motorbike; 27- Pedalcycle; 38- Animal Drawn Veh; 39- Animal (Ridden); 41- Pedestrian; 51- Train; 61- School Bus; 62- Passenger Bus; 98- Other; 99- Unk. (Hit and Run Only)

Alcohol / Drug Test Given: 1- Given - Known Results; 2- Given - Unusable; 3- Given - Pending; 4- None; 5- Refused

Special Use Only

Vehicle Use Code: 01- Personal; 02- Driver Training; 03- Construction/Maint.; 04- Ambulance; 05- Military; 06- Transport Passengers; 07- Transport Property; 08- Farm Use; 09- Wrecker or Tow; 10- Police; 11- Government; 12- Fire Fighting; 13- Logging; 18- Other; 41- Pedestrian

Test Type: 1- Breath (Alc Only); 2- Blood; 3- Urine; 4- Serum; 8- Other

Underride/Override: 1- Under- Compartment Intrusion; 2- Under- No Intrusion; 3- Under- Unknown; 4- Over- MV in transport; 5- Over- Other Vehicle; 6- None; 9- Unk.

Vehicle Attachment: 1- None; 2- Mobile Home; 3- Semi-Trailer; 4- Utility Trailer; 5- Farm Trailer; 6- Trailer w/ Boat; 7- Camper Trailer; 8- Towed Motor Vehicle; 9- Petroleum Tanker; A- Lowboy Trailer; B- Autocarrier Trailer; C- Other Tanker; D- Flat Bed; E- Twin Trailers; F- Other

Drug Results: 1- Amphetamines; 2- Cocaine; 3- Marijuana; 4- Opiates; 5- PCP; 8- Other

Extent of Deformity: 0- None/Minor; 1- Functional Damage; 2- Severe/Totaled; 3- Disabling Damage; 4- Severe/Totaled; 5- Not Applicable; 9- Unk.

Alc Test Results: A1-; A2-; A3-

Trafficway: 1- Two -way, Not Divided; 2- Two-way, Divided, Unprotected Median; 3- Two-way, Divided, Barrier; 4- One-Way; 8- Other

A: 1- Gore; 2- Island; 3- Median; 4- Roadside; 5- Roadway; 6- Shoulder; 7- Sidewalk; 8- Outside Trafficway; 9- Unk.

B: X-walk: 1- Y; 2- N; 9- U

1st Harmful Event Loc.

Action Prior to Impact (Vehicle): 01- Backing; 02- Changing lanes; 03- Entering traffic lane; 04- Leaving traffic lane; 05- Making U-turn; 06- Movements Essentially Straight Ahead; 07- Overtaking/passing; 08- Parked; 09- Slowing or Stopped in traffic; 10- Turning left; 11- Turning right; 88- Other; 99- Unk.

(Non-motorist): 21- Approaching/Leaving Vehicle; 22- Entering/Crossing Location; 23- Playing/Working on Vehicle; 24- Pushing Vehicle; 25- Standing; 26- Walking, Playing, Cycling; 27- Working

Road Character: 1- Straight - Level; 2- Straight - On grade; 3- Straight - Hillcrest; 4- Curve - Level; 5- Curve - On grade; 6- Curve - Hillcrest

Road Surface Condition: 1- Dry; 2- Wet; 3- Snow; 4- Slush; 5- Ice; 6- Contaminate; 7- Water (Standing, etc.); 8- Other; 9- Unk.

Traffic Control Type: 01- Stop and Go Light; 02- Flashing Traffic Signal; 11- RR (X-bucks, Lights & Gates); 12- RR (X-bucks & Lights); 13- RR (X-bucks Only); 21- Officer or Flagman; 22- Oncoming Emergency Vehicle; 31- Pavement Markings (only); 41- Stop Sign; 42- School zone Sign; 43- Yield Sign; 44- Work Zone; 45- Other Warning Signs; 51- Flashing Beacon; 98- None; 99- Unk.

Weather Condition: 1- Clear (no adverse conditions); 2- Rain; 3- Cloudy; 4- Sleet, Hail; 5- Snow; 6- Fog, Smog, Smoke; 7- Blowing Sand, Oil, Dirt or Snow; 8- Severe Crosswinds; 9- Unk.

School Bus Involved: 1- Yes; 2- No

Light Condition: 1- Daylight; 2- Dawn; 3- Dusk; 4- Dark (Lighting Unspecified); 5- Dark (Street Lamp Lit); 6- Dark (Street Lamp Not Lit); 7- Dark (No lights)

Work Zone: 1- Before 1st Sign; 2- Advanced Warning Area; 3-Transition Area; 4- Activity Area; 5-Termination Area

Work Zone Location: 1- Shoulder/Median Work; 2- Lane Shift/Crossover; 3- Intermittent/Moving Work; 4- Lane Closure; 8- Other; 9- Unk.

Work Zone Type:

Workers Present: 1- Yes; 2- No

Junction Type: 01- Crossover; 02- Driveway; 03- Five/More Points; 04- Four-way Intersection; 05- Railway Grade Crossing; 07- Shared Use Paths or Tr; 08- T-Intersection; 09- Traffic Circle; 12- Y - Intersection; 13- Nonjunction; 99- Unk.

Contributing Factors

Primary

Others:

Driver: 01- Disregarded Signs, Signals, Etc.; 02- Distracted/Inattention; 03- Driving Too Fast for Conditions; 04- Exceeded Authorized Speed Limit; 05- Failed to Yield Right of Way; 06- Ran off Road; 07- Fatigued/Asleep; 08- Followed Too Closely; 09- Made an Improper Turn; 10- Medical Related; 11- Operating Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner; 12- Aggressive Operation of Vehicle; 13- Over-correcting/Over-steering; 14- Swerving to Avoiding Object; 15- Wrong Side or Wrong Way; 16- Under the Influence; 17- Vision Obscured (Within Unit); 18- Improper lane Usage/Change; 19- Cell Phone; 28- Other Improper Action; 29- Unk.

Roadway: 30- Debris; 31- Non-highway Work; 32- Obstruction in Roadway; 33- Road Surface Condition (I.e., Wet); 34- Rut, Holes, Bumps; 35- Shoulders (None, Low, Soft, High); 36- Traffic Control Device (I.e., Missing); 37- Work Zone (Constr./Maint./Utility); 38- Worn, Travel-Polished Surface; 48- Other; 49- Unk.

Non- Motorist: 50- Inattentive; 51- Lying &/or Illegally in Roadway; 52- Failure to Yield R. of W.; 53- Not Visible (Dark Clothing); 54- Disregard Signs, Signals, Etc.; 55- Improper Crossing; 56- Darting; 57- Wrong Side of Road; 58- Other; 59- Unk; 66-Under Infl.; 67- Other Person Under Infl

Environmental: 60- Animal in Road; 61- Glare; 62- Obstruction; 63- Weather Cond.; 68- Other; 69- Unk.

Vehicle Defect: 70- Brakes; 71- Steering; 72- Power Plant; 73- Tires/Wheel; 74- Lights; 75- Signals; 76- Windows/Shield; 77- Restraint System; 78- Truck Coupling; 79- Cargo; 80- Fuel System; 88- Other; 89- Unk.

D.P.S. USE ONLY

South Carolina
Uniform Traffic Collision Report
(For Investigating Officers)
Supplemental Bus & Truck Accident Report

Amended-Attach Copy of Original Report | Corrected

Page _____ of _____ Pages

Date	Time	County	Route Category	Accident Location (Route Number and Name if Any)	Auxillary
			1-Interstate 4-Secondary 2-US Primary 5-County 3-SC Primary 6-Other	ON	0-Mainline 6-Connection 2-Alternate 7-Business 5-Spur 9-Other

SCREENING INFORMATION

NUMBER OF QUALIFYING VEHICLES INVOLVED

A Truck having a GVWR of 10,001 lbs. or more for the power unit →

OR

A Vehicle with a Hazardous Materials Placard →

OR

A Bus that is Designed or Used to Carry 16 or More Persons, Inlcuding Driver →

OR

A Motor Vehicle Engaged in Interstate Commerce that is Designed or Used to Carry 9-15 Persons, Inlcuding the Driver, for Compensation →

Number of Persons Involved:

Sustaining Fatal Injuries →

Transported for Immediate Medical Services →

Number of Vehicles Towed

Towed from the Scene Due to Damage →

Do Not Complete This Form Unless:

One or More Qualifying Vehicles was Involved - AND

One or More Qualifying Injuries was Sustained - OR

One or More Vehicles (not necessarily the truck or bus) was Towed from the Scene

Total Number of Supplemental Forms Required for this Collision :

Unit Number_____ **FR-10 Number** _____

Carrier Information

Name: _____

Address: _____

City: _____ **State:** **Zip:**

Business Phone Number:

Identification Numbers

U.S. DOT None = 0

ICC MC **State:**

State Number

Is this vehicle an (1) Interstate or a (2) Intrastate carrier?

Was a Citation Issued to this Vehicle? 1- Yes 2- No 3- Pending

Access Control

1- No Access Control
2- Full Acces Contro
3- Partial Access Control

Vehicle Information

Gross Vehicle Weight Rating

Weight Rating of the Power Unit of the Truck

01- Less than or Equal to 10,000 Pounds
02- 10,001-26,000 Pounds
03- More than 26,000 Pounds
99- Unknown/ Hit and Run

Vehicle Configuration

00- Passenger Car (only w/ HAZMAT placard
01- Light Truck (only w/ HAZMAT placard
02- Bus (seats for 9-15 people)
03- Bus (seats for 16 + people
04- Single Unit Truck (2axles/6+ tires
05- Single Unit Truck (3 or more axles
06- Truck w/ Trailer
07- Truck-Tractor Only (Bobtail)
08- Tractor w/ Semi-Trailer
09- Tractor w/ Double Trailers
10- Tractor w/ Triple Trailers
98- Other/Unable to Classify
99- Unknown/ Hit and Run

Cargo Body Type

00- Bus (seats for 9-15 people)
01- Bus (seats for 16+ people)
02- Enclosed Box
03- Cargo Tank
04- Flat Bed
05- Dump
06- Concrete Mixer
07- Auto Transport
08- Garbage/Refuse
09- Grain, Chips, Grave
10- Pole
11- Intermodal Container
97- Not Applicable
98- Other
99- Unknown/ Hit and Run

Trailer Length and Width

Length

00- No Trailer
01- Less than 480 in. (40 ft)
02- 481 in. - 576 in (48 ft.)
03- 577 in. or more
99- Unknown/ Hit and Run

Trailer 1 Length | Trailer 2 Length

Width

00- No Trailer
01- Less than 60 in. (5 ft.)
02- 61 in. - 84 in. (7 ft.)
03- 85 in. or more
99- Unknown/ Hit and Run

Trailer 1 Width | Trailer 2 Width

Hazardous Material Involvment

Was This Vehicle Carrying Hazardous Materials?

1- Yes 2- No 3- Unknown/Hit and Run

Did the Vehicle Have a Hazardous Material Placard?

1-Yes 2- No 3- Unknown/Hit and Run

If "Yes", What Class of Hazardous Material (off placard/shipping papers)?

01- Class 1 (Explosives)
02- Class 2 (Gases)
03- Class 3 (Flammable Liquids)
04- Class 4 (Flammable Solids)
05- Class 5 (Oxidizing Substance)
06- Class 6 (Poison/Infectious Substance)
07- Class 7 (Radioactive)
08- Class 8 (Corrosives)
09- Class 9 (Misc. Goods)
10- No Placard
99- Other/Unknown/Hit and Run

If "YES", enter 4 digit HAZMAT ID(look on placard/shipping papers)

Did Hazardous Material Release from this Vehicle?

1-Yes 2- No 3- Unknown/Hit and Run

Notification of Release:

Investigator's Name	Rank	Date	Reviewer's Name	Date

ACKNOWLEDGEMENTS

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The Office of Highway Safety, which tabulated the traffic collision data and other pertinent information for this publication, could not have done so without the untiring efforts of the above persons and organizations.