Vehicle Crash Report
Lowndes County
Data from 2005-2007

Valdosta-Lowndes

Metropolitan Planning Organization

July 2009

Southern Georgia Regional Commission

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Table of Contents

Introduction

In 2007, the Valdosta-Lowndes Metropolitan Planning Organization (MPO) produced its first Crash Report. This first report was a tool used by the MPO and local jurisdictions to evaluate safety needs and to support project development in the Long Range Transportation Plan and Transportation Improvement Program. The first Crash Report included crash data from the years 2000-2005.

This second Vehicle Crash Report is the follow-up and continuation of an ongoing study of crash data and safety planning in Greater Lowndes County, Georgia. This report will include the years 2005-2007. By including multiple years data any abnormalities in data can be averaged out over time to reflect a more true picture of the overall crash frequency, severity and location (among other data) in Lowndes County.

This report will continue to be used to inform local public agencies of crash related data in the community and to identify causes of crashes and even possible safety improvements, law enforcement, or education improvements.

Initially the overall concept and content of this report was compiled through a meeting of local law enforcement officials, school officials, Georgia Department of Transportation (GDOT) traffic operations engineers, local engineering departments and others.

This report will examine various characteristics of crash data to examine the increase or decrease in overall crashes, crash frequency, crash locations, contributing factors, etc. In the end we will identify the ten highest frequency locations for crashes in the City of Valdosta (includes City of Remerton) and Lowndes County (excluding Valdosta and including Cities of Dasher, Hahira and Lake Park).

The 4 E's of Highway Safety

Crash prevention and response is not the duty of just one agency, but rather many different agencies with many different priorities and responsibilities each must respond accordingly to crash reduction efforts in their own areas of expertise. The 4 E's of Highway Safety is where the many different responsible agencies come together to each do their own part in reducing crash frequency and severity. The 4 E's of Highway Safety are Education, Engineering, Enforcement and Emergency Medical Services.[1]

Education includes working with young and old alike to educate drivers, pedestrians, bike riders, and passengers of the rules of the road and other important safety factors. The Education E includes: diversion programs for underage drinking, general public education campaigns, safety belt and child seat inspections, expanded and improved driver training courses and materials.

Engineering includes working with local and state public works, highway and transportation departments to improve the physical characteristics of the roadway and right-of-way. The Engineering E includes: improving horizontal and vertical curvature of roadways, enhanced signage and roadway markings, access management, improved intersection sight distances, and overall intersection and roadway design.

Enforcement includes working with law enforcement agencies to educate drivers to prevent crashes as well as efficient response and analysis of crash sites. The Enforcement E includes: employing checkpoints for DUI or seatbelt usage, enforcement of laws for underage and excessive drinking, targeted speed and intersection use enforcement, and proper data collection for future analysis.

Emergency Medical Services includes all first responders to crash sites and the medical treatment victims receive immediately after a crash. The Emergency Medical Services (EMS) E

[1] Source: Nebraska Highway Safety Plan Critical Strategies, Nebraska Department of Roads

includes: efficient response by medical personal to crash site, rapid evacuation of victims to trauma centers, and education of public on proper usage of safety restraints.

Each of the 4 E's is not mutually exclusive to the various agencies described above, an example is that education is spread out between all of the different agency partners, like law enforcement agencies, highway departments, and EMS responders. Also, engineers may get ideas from suggestions from law enforcement agencies or schools about concerns with children walking to school. Each of the various agencies has their own role to play as well as an interconnected role with others to reduce crash frequency and severity on our roadways.

Crash Data Collection

When a crash occurs in Georgia the respective law enforcement agency completes a Uniform Motor Vehicle Crash Report (an example report is included in the appendix). Once completed, these reports are sent to the Georgia Department of Transportation Office of Traffic Safety and Design. The data is compiled by this GDOT Office and the University Of Alabama College Of Engineering into the Critical Analysis Reporting Environment (CARE) software. The CARE software is designed to allow planners and other professionals a means by which crash data can be sorted, cross tabulated, and allows multi-parameter searches which can be generated in graphs and or tables displaying the results of localized crash data in a timely fashion. The CARE 8 version of the software was used for data analysis in this report. The data in this report includes crash record data from the years 2005, 2006 and 2007 as found in the 2000-2007 Georgia Crash Data record set.

Georgia SHSP and HSP

The 2007 Georgia Strategic Highway Safety Plan (SHSP) documents the comprehensive process by which multidisciplinary professionals join Georgia highway safety partners to leverage existing resources. The professional input from the four safety E's of engineering, education, enforcement, and emergency medical services produces new partnerships. New highway safety partnerships create new opportunities in combining and creating strategies to reduce highway crashes, injuries and fatalities. Georgia's aspiration is to reduce to zero the number of highway fatalities and injuries. The vision establishes that even one highway death is unacceptable.[2]

Georgia has selected the goal of 1.0 fatality per 100 million vehicle miles travelled for crash reduction strategies. This fatality rate goal mirrored the American Association of State Highway Transportation Officials' goal of 1.0 fatality per 100 MVMT by 2008. Achieving this goal in Georgia would reduce by 511 the annual fatalities from the 2005 total of 1,744 to 1,233 in 2010.

The Highway Safety Plan (HSP) was based on the latest statistics available for highway safety problem solving. The document contains Education and Enforcement countermeasures for reducing crashes, injuries and fatalities on Georgia roads. It also documents strategic, comprehensive, and collaborative efforts with the Engineering and Emergency Medical Services components to roadway safety in the State. This "4-E" approach will result in a balanced and effective strategy to saving lives on Georgia's roadways. Tragically, 1,641 people died on Georgia roadways during 2007 according to the National Center for Statistics and Analysis. Motor vehicle crashes cost the state over $7.85 billion annually. Georgia will work to analyze the casual factors of these deaths to help mitigate there causes. As more current data becomes available, GOHS will use such in refining its HSP. GOHS plans to develop, promote, implement and evaluate projects designed to address those identified major

[2] Source: 2007 Georgia Strategic Highway Safety Plan

contributing injury and fatal highway safety factors with the latest data available.[3]

The Priority Goals of the 2009 Georgia Highway Safety Plan are:

- Increase the rate of observed safety belt use from 89.6% to 91% by the end of FFY[4] 2009 for drivers and front seat outboard passengers.
- Reduce the alcohol related fatality rate from 0.53 fatalities per 100 million VMT in 2006 to 0.48 fatalities per 100M VMT[5].
- Reduce the percentage of speed related fatal crashes from 24% to 21%.
- Reduce the percentage of pedestrian related fatal crashes from 9% to 7%.
- Continue implementation of the Strategic Highway Safety Plan with all roadway safety stakeholders in Georgia.

This Crash Report will highlight the data for these goals in Lowndes County to show how these goals are being addressed on the local level.

Other Crash Data Reports

The Georgia Department of Transportation produces several different reports analyzing crash data. These reports include the GDOT 5% Report, the Georgia Top 150 Report and Crash Analysis Statistics and Information (CASI) Reports.

The Georgia 5% Report is produced in response to the Federal requirement that each state describe at least 5 percent of its crash locations currently exhibiting the most severe highway safety needs, in accordance with Sections 148(c)(1)(D) and 148(g)(3)(A), of Title 23, United States Code. Each state's report is to include potential remedies to the hazardous locations identified; estimated costs of the remedies; and impediments to implementation of the remedies other than costs.[6] The 2007 5% Report is available on the Federal Highway Administration's Office of Safety website. In 2007 there were no locations identified in Lowndes County.

CASI Reports "provide straightforward, easy to understand crash information. Each page or table can be used as a stand-alone document and can be used for print dissemination. Some topics will be several pages long while other topics will be a single page. Topics will include crashes, injuries and fatalities, trends, basic demographics on population and licensed drivers, rural and urban roads, young drivers and other highway safety issues in Georgia."[7]

The Georgia Governor's Office of Highway Safety also makes available to the public the Fatality Analysis & Surveillance Tool (F.A.S.T.) on a monthly and annual basis. The F.A.S.T. is a data spreadsheet detailing current, past, and future projected deaths on Georgia roadways by region and county.[8]

The City of Valdosta annually produces a report of crash data and statistics. For several years the City of Valdosta has instrumented several operational and capital improvements which have decreased the number of crashes in the City. Recently however the total numbers of crashes have been increasing; this increase is attributed to the growing population of the community among other factors.

[3] Source: 2009 Georgia Highway Safety Plan, Governor's Office of Highway Safety

[4] Federal Fiscal Year, October 1 – September 30

[5] VMT = Vehicle Miles Travelled

[6] Source: FHWA Office of Safety, Highway Safety Improvement Program and 5% Report Requirements

[7] Source: CASI Report Overview, GDOT

[8] Source: Governor's Office of Highway Safety, F.A.S.T. Data Spreadsheet

Trends and Statistics

For several years there has been a focused effort nationwide to reduce the number of fatal crashes. The most recent surface transportation law, the Safe, Accountable, Flexible and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) contained several national efforts to increase safety on the nation's transportation network.

Nationwide from 2005 through 2007 fatal crashes have fallen by 5.6%, from 43,510 to 41,059. In Georgia a similar trend is also occurring, in 2007 there were 1,500 fatal crashes, a decrease of 5.9% from 1,594 in 2005.

In Lowndes County, similar trends are also being seen to those nationwide and in Georgia. Although the number of fatal crashes in Lowndes County is comparatively small to state and nationwide statistics, similar decreases have been seen in total crashes. In 2007, total crashes in Lowndes County fell to 3,405 from 3,878 in 2005, a decrease of 12.2%.

The City of Valdosta Crash Report has been used to gauge success of roadway improvements throughout the entire city by looking at the total number of crashes in the community annually.

Addressing GA SHSP Goals

As previously noted the Georgia Strategic Highway Safety Plan (SHSP) outlines the following goal for attainment by 2010:

1.0 fatality per 100 million vehicle miles travelled.

This fatality rate goal mirrors the American Association of State Highway Transportation Officials' goal of 1.0 fatality per 100 million VMT by 2008. Achieving this goal in Georgia would reduce by 511 the annual fatalities from the 2005 total of 1,744 to 1,233 in 2010.

To work to achieve this goal the Governor's Office of Highway Safety has formed task teams around key emphasis areas to develop plans, goals and strategies to meet the overall goal of reducing fatalities on Georgia highways. These key emphasis areas are:

- Aggressive Driving/Super Speeder
- Occupant Protection
- Serious Crash Types
- Impaired Drivers
- Age Related Issues
- Non-motorized Users
- Vehicle Type
- Trauma System
- Traffic/Crash Records and Data Analysis
- Traffic Incident Management

Each task team uses the 4 E's of highway safety to explore strategies to reduce the number of fatal crashes in their respective emphasis areas.

Throughout Georgia many different agencies ranging from state law enforcement and transportation departments to local highway departments, schools and police departments are addressing these goals in a myriad of ways, directly or indirectly, formally and informally.

Locally many different agencies are making efforts to address the goals of the SHSP and its key emphasis areas. Some of the efforts of state and local agencies and organizations are described below.

The MPO is a partner in transportation planning, programming and operations with local and state highway and transportation agencies, from the project visioning stages on through to design and construction and into the safe and efficient operations of an overall transportation network. The MPO uses crash data to make more informed decisions about developing new projects and prioritizing projects already in the development process. When it comes to operating and maintaining an efficient and safe transportation system, the MPO provides educational and training opportunities to local engineers, planners and the public, on topics ranging from land use and

access management to bike and pedestrian safety brochures for students.

Currently the MPO is analyzing crash data to determine how crashes involving commercial vehicles impact freight movement in the community. The results of this research may be used to suggest roadway improvements, or commercial truck routes.

Fatal Crash Analysis

The crash data for all of Lowndes County was analyzed in reference to the Georgia Strategic Highway Safety Plan Key Emphasis Areas as well as other key data factors. By analyzing the local crash data in relationship to the emphasis areas selected by the State of Georgia we are able to gauge locally the impact on the overall statewide crash reduction and fatality goals.

In order to be consistent with the State of Georgia's Strategic Highway Safety Plan (SHSP) the data analysis completed for this crash report follows the key emphasis areas outlined in the SHSP. The key emphasis areas are important factors identified by the State to reduce fatal crashes.

Crash data from the CARE 8 software was analyzed first using the key emphasis areas and then for other select factors of interest locally. Because there is such a drastic difference in crash numbers and rates between the Valdosta Urbanized Area (see Figure 1) and the remainder of Lowndes County, the areas were analyzed as independent geographic areas. I-75 also posed a similar issue in some cases; further analysis of the crashes on the Interstate has been completed where appropriate.

Each data factor is analyzed on its own and cross analyzed with other data factors to more clearly understand the relationship of crashes, contributing factors, severity, location, and driver and vehicle characteristics. An example of this might be looking how crashes involving impaired drives relate to the age of the driver, the day of the week and time of the day. One might hypothesize from this that alcohol related crashes occur with younger drivers, on the weekend and early in the morning. The data will be used to determine if this hypothesis is correct and even what steps might be taken to reduce these types of crashes.

Later this report looks at the top 20 crash locations in each of the defined geographic areas. These locations will receive a more in-depth analysis as described later.

Lowndes County Crash Rates

One noticeable data point comes to the surface when examining crashes in Lowndes County, more than 79% of the crashes occur in the Valdosta Urbanized Area. However, half of the total fatal crashes occur in the rural areas.

Table 1: Crashes in Lowndes County 2005-2007

	Valdosta UZA	Lowndes Rural	Lowndes County
Fatal	22	22	44
Injury	2,350	830	3,180
PDO	6,399	1,465	7,864
Total	**8,771**	**2,317**	**11,088**

Table 2 Fatalities and Injuries 2005-2007

	Valdosta UZA	Lowndes Rural	Lowndes County
Fatalities	23	23	46
Injuries	3484	1305	4789

Table 1 above shows that from 2005-2007, .4% of all crashes that occurred in Lowndes County were fatal. Of the 11088 total crashes that occurred in this time period, 3180 were "non-fatal injury" crashes and 7864 resulted in no injury.

Table 2 illustrates the use of the Governor's Office of Highway Safety F.A.S.T. data tool to analyze fatality rates for various jurisdictions throughout the state. The F.A.S.T spreadsheet uses current fatality totals and VMT data to project the number of fatalities a community may have in the future. This data and

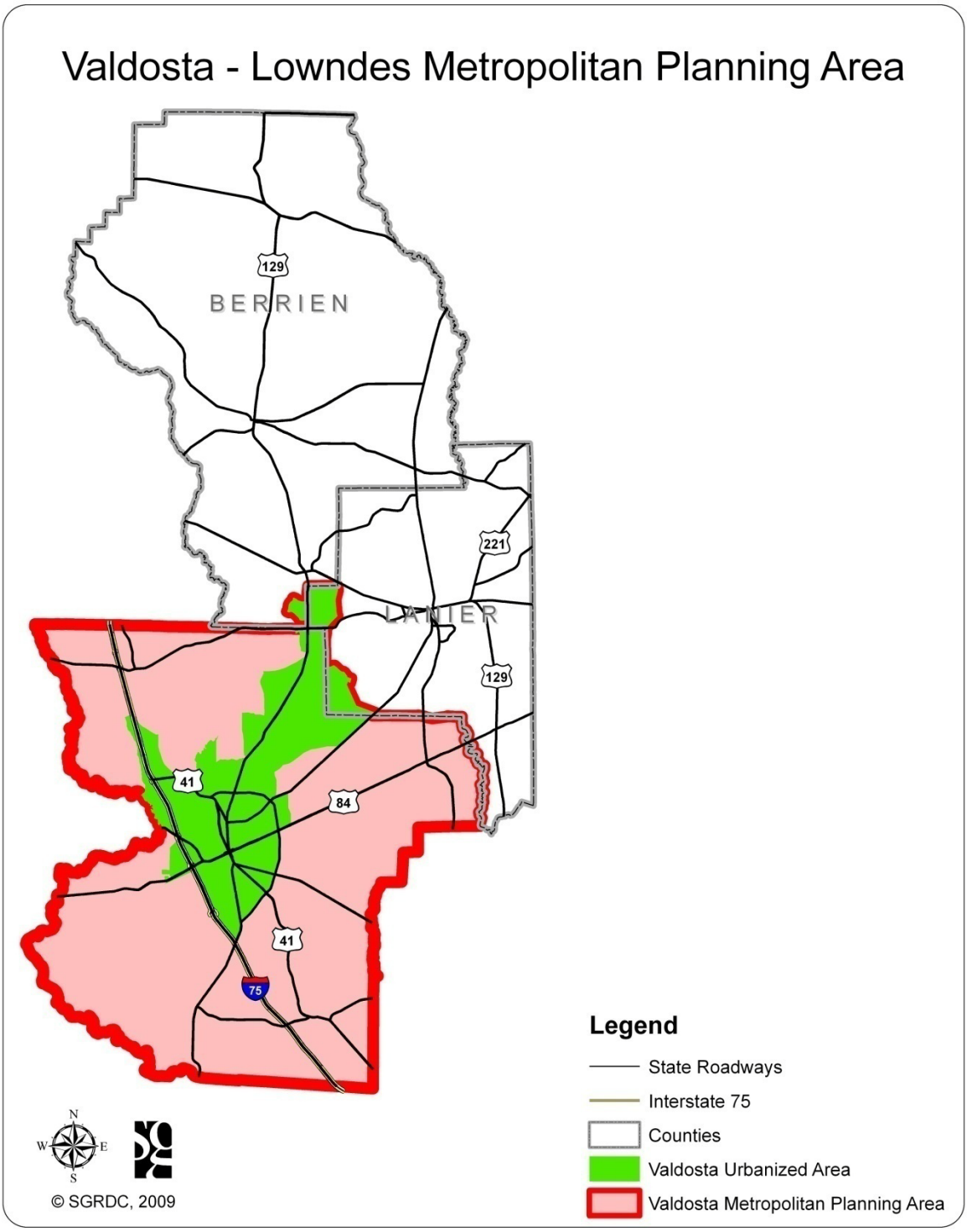


Figure 1 Valdosta-Lowndes Urbanized Area

projection helps the GOHS and other agencies determine how well crash reduction initiatives are working. This also allows for an easy glance at progress toward the SHSP's goal of 1.0 fatality per 100 million VMT. Figure 2 illustrates Lowndes County's and the State of Georgia's past rate as well as the projected future rate.

Figure 2 Crash Rates in Lowndes County 2000-2010[8]

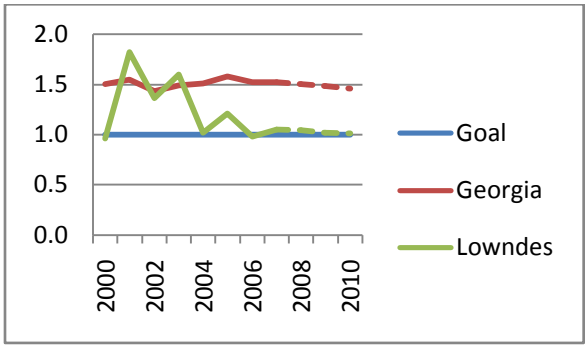


Table 3 Lowndes County Crash Rates 2005-2007[9]

Lowndes	2005	2006	2007
Fatalities	17	14	15
VMT[10]	1.406	1.435	1.428
Rate	1.21	.98	1.05
Georgia	**2005**	**2006**	**2007**
Fatalities	1744	1703	1711
VMT[9]	110.587	111.694	112.903
Rate	1.58	1.58	1.52

Crash data is generally categorized by three different levels of severity: fatal crashes, non-fatal injury crashes, and Property Damage Only (PDO) crashes. Georgia's goal for fatal crash numbers has been set at 1.0 fatal crashes per 100 million vehicle miles traveled (VMT) by 2010. This goal was set to mirror the American Association of State Highway Transportation Officials' (AASHTO) goal. This would mean, if current driving trends continue, decreasing the number of fatal crashes in Georgia from 1,703 in 2007 to 1,233 by 2010. However, because the fatal crash rate is calculated per 100 million vehicle miles traveled, the number of crashes may increase due to more drivers being on the road or the same drivers travelling more miles, while the crash rate may decrease per 100 million vehicle miles traveled. This is why the goal is set by a ratio of crashes to miles travelled on the road, and not simply by the number of crashes.

[9] Source: GA GOHS F.A.S.T. Report for 2007
[10] Vehicle Miles Travelled in billions

Aggressive Driving

Aggressive Driving may be defined in the State of Georgia Code as (but not limited to) the failure to obey traffic control devices, follow at a proper distance, drive within marked traffic lanes, yield the right-of-way, signal correctly, overtaking a stopped school bus, to obey basic and posted speed rules, to properly pass, or to impede the flow of traffic. Not all of these definitions are available to be analyzed in the crash data however Table 3 illustrates how each of these factors contributes to crashes in Lowndes County. Aggressive driving contributing factors led to 30 fatalities in Lowndes County during the study period. It should be noted that there are not necessarily 30 fatalities in total because one crash with multiple contributing factors may only have one fatality. The crash data reflects the number of fatalities attributed to each contributing factor.

Of the 7,242 aggressive driving-related crashes in Lowndes County, 572, or 8%, occurred on interstate roadways. In Lowndes County, Interstates account for just less than 5% of the aggressive driving related crashes.

Following too closely and failure to yield are the two most frequent contributing factors in crashes when it comes to aggressive driving. Other contributing factors may be higher but are not examined here. In Lowndes County 73% of aggressive driving crashes were contributed to following too closely and failing to yield.

The 2007 SHSP outlines several techniques to reduce fatalities from crashes attributable to aggressive driving; many of these techniques are education and enforcement related. Some of the techniques include more education in existing driving training courses and more strict laws and penalties for repeat offenders of aggressive driving.

Speed and aggressive driving are two common factors in motor vehicle crashes, especially those resulting in fatalities. Speeding involves exceeding posted speed limits or driving too fast for conditions, while aggressive driving is defined by the National Highway Traffic Safety Administration (NHTSA) as occurring when a driver "commits a combination of moving traffic offenses so as to endanger other persons or property." These two offenses may be one in the same at times, but aggressive driving generally involves a combination of several offenses that generally include excessive speeds.

NHTSA safety experts estimate that nationally, 31% of all fatal crashes involved drivers who were exceeding the speed limits or driving too fast for conditions. The economic cost to society of speed-related crashes in the U.S. is estimated at $40.4 billion every year[i] and in Georgia, 1 out of every 5 crashes involves unsafe or illegal speed. Excess speed decreases the time available to make decisions, makes maneuvering a vehicle more difficult, reduces the ability to stop quickly, and greatly contributes to the severity of a crash impact.

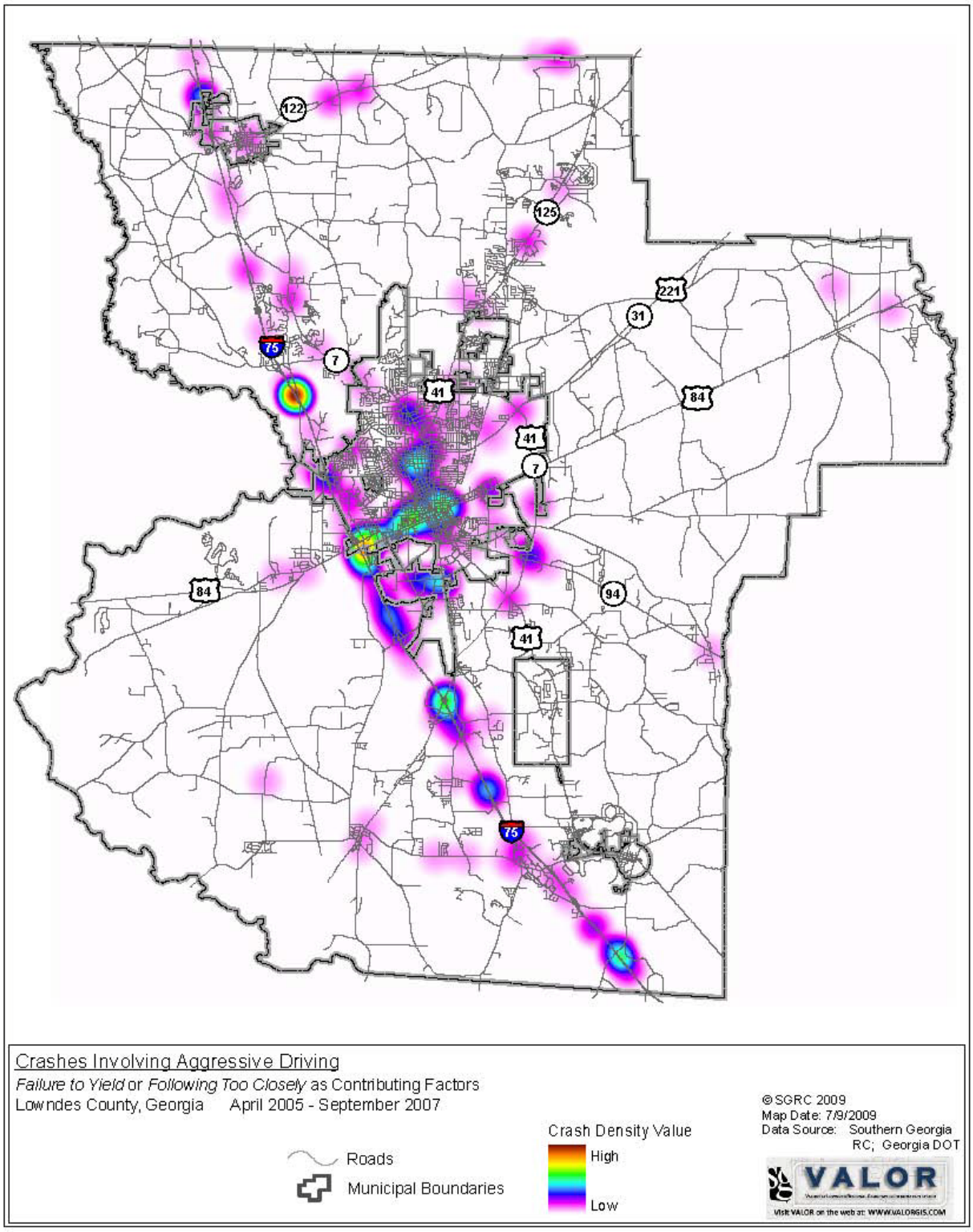
In 2009 Georgia lawmakers passed the "Super Speeder" legislation. This piece of legislation specifically addressed "high speed violators and establishes penalties and fines to support the trauma hospital system development."[ii] Driver's eligible to be prosecuted under this law are guilty of speeding 85 mph or more on any Georgia road or highway, or, 75 mph or more on any two-lane Georgia road or highway.

The 2009 GA Highway Safety Plan states that its main program objective for speed and aggressive driving is "to reduce motor vehicle crashes, injuries, and fatalities through systematic delivery of effective speed/aggressive driving countermeasures." These countermeasures are determined and carried out by distinguishing problem areas, driving groups, and conditions related to speeding and aggressive driving, and then properly implementing effective strategies to reduce these incidences.

One method of reducing the number of speeders and those who drive aggressively used by both the state of Georgia and local law enforcement is the H.E.A.T. task force. H.E.A.T. stands for "Highway Enforcement of Aggressive Traffic" and the project which has been utilized by the Valdosta Police Dept., focuses mainly on speeding and impaired driving, two of the main aggressive driving related violations.

To address the issues most feared by Georgia's drivers the GOHS initiated the "100 days of Summer H.E.A.T." program. The State of Georgia flooded the media with information about the campaign to promote awareness and safer driving practices. Along with the media campaign, law enforcement agencies around the state stepped up their enforcement efforts. By the end of the 100 days, officers had written over 650,000 citations, 15,000 of which were DWI. The campaign produced a 14% reduction in fatalities from the previous year.[11]

[11] "100 Days of Summer HEAT" in Georgia: Taming Georgia's High-Speed Driving Culture", Police Chief Magazine Online.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Crashes Involving Aggressive Driving
Failure to Yield or Following Too Closely as Contributing Factors
Lowndes County, Georgia April 2005 - September 2007
Roads
Municipal Boundaries
Crash Density Value
High
Low
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Map Date: 7/9/2009
Data Source: Southern Georgia RC; Georgia DOT
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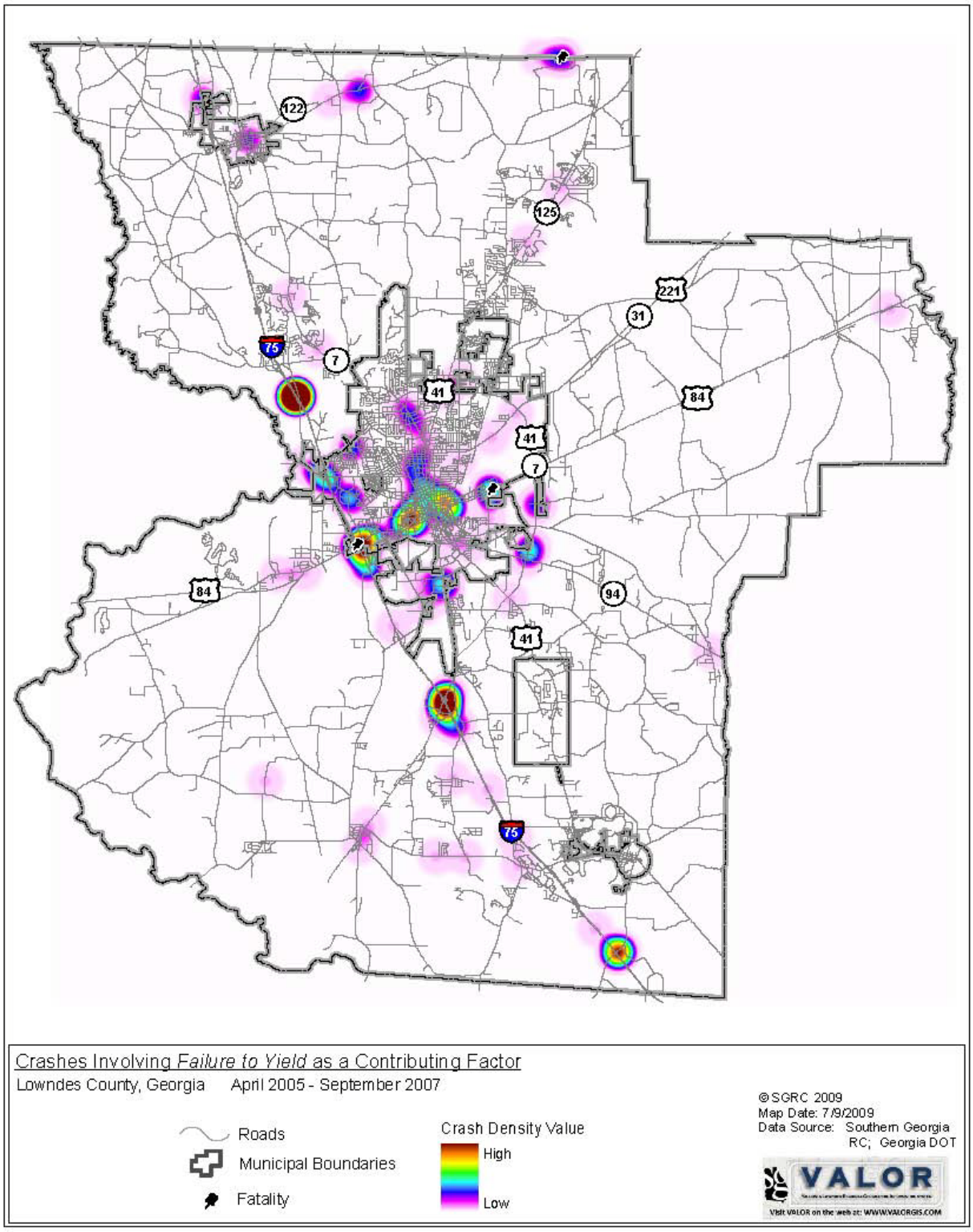
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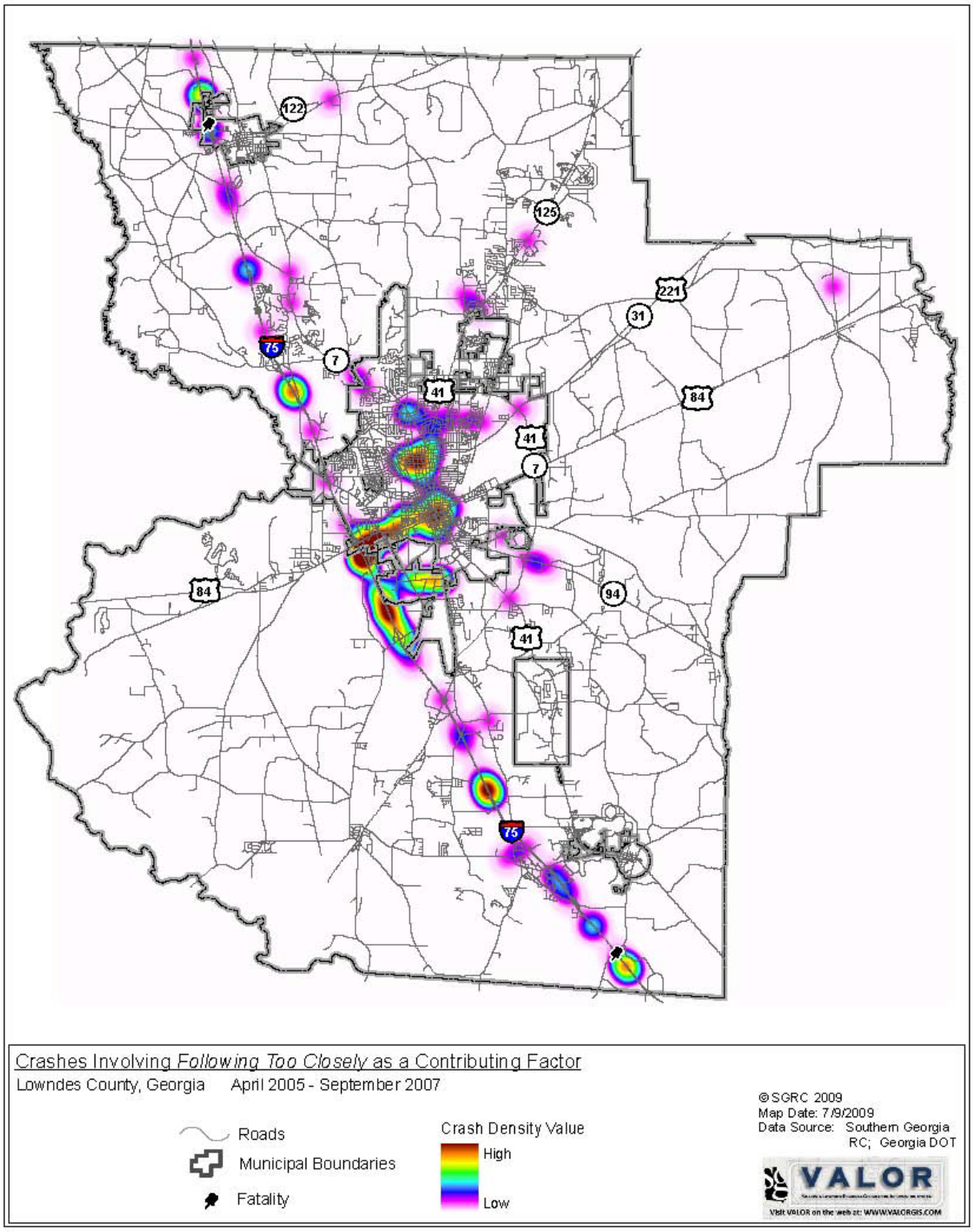
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Occupant Protection

Nationally, the consistent and correct use of safety belts continues to be a factor in thousands of crashes. The National Highway Traffic Safety Administration estimates that safety belts, when used correctly, are forty-three percent (43.5%) effective in preventing deaths in potentially fatal crashes and fifty percent (50%) effective in preventing serious injuries.[12]

This report will examine seat belt and child safety seat usage by drivers and passengers, respectively; and the deployment of airbags as each relates to the severity of crashes.

"According to the 2007 occupant protection survey from the Survey Research Center, University of Georgia, and overall adult seat belt use in Georgia was 89.0%, up from 73.6% in 1998."[13] This data is not reflected in the crash data from Table 5.

The crash data shows 40% of drivers in crash vehicles either were not using a safety belt, only portions of a safety belt, or it is unknown if the driver's were restrained at all. The large portion of this data that shows it is unknown if the driver of a vehicle in a crash was using a safety restraint device is very poor data collection, however it can be clearly shown that there were far fewer fatal crashes for this safety restraint category.

Possibly the most interesting data in Table 5 is the similar numbers of fatal crashes for drivers wearing a safety belt and those not restrained at all. However the percentage of crashes the fatal crashes account for is clear that safety restraints do save lives. In Lowndes County of the 838 crashes where no safety restraint was used, 3% of the crashes involved the fatality of the driver; however in crashes where the driver was restrained the fatal crash rate was 0.2%.

Per Georgia Code, (O.C.G.A. § 40-8-76.1) safety belts are required use in passenger vehicles carrying less than 10 persons, however pick-up trucks are explicitly exempt from the requirements of use of safety belts.

Examining the passengers of crashes, there were a total of 43 passenger fatalities from 44 total crashes in Lowndes County from 2005-2007. This does not include the three additional fatalities from single passenger vehicles. Almost 50% of the passengers killed in a crash in Lowndes County were not wearing a safety restraint at all.

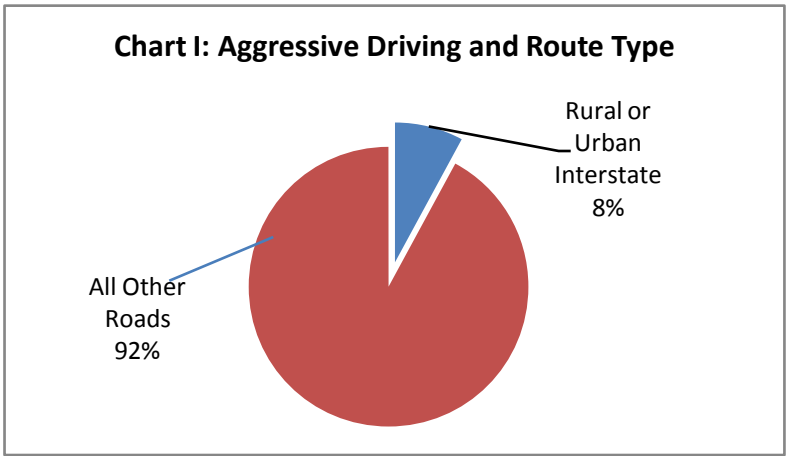
When it comes to the use of child safety seats the data shows that a vast majority of children are restrained in a proper manner, contributing to the zero deaths of children restrained in a safety seat. This indicates that education programs from the many different groups are working to protect children in child safety seats.

[12] Source: 2007 Georgia Strategic Highway Safety Plan

[13] GOHS, F.A.S.T spreadsheets

Table 4 Aggressive Driving Crashes 2005-2007

	Valdosta UZA			Lowndes Remainder			Lowndes County		
	Total	%	Fatal	Total	%	Fatal	Total	%	Fatal
Following Too Closely	3137	47	0	418	30	2	3555	44	2
Failure to Yield	2015	30	10	323	23	1	2338	29	11
Changing Lanes	565	8	1	138	10	1	703	9	2
Too Fast for Conditions	345	5	3	360	26	7	705	9	10
Other	621	9	3	147	11	2	768	10	5
Total[14,15]	6683	100	17	1386	100	13	8069	100	30



[14] Percentages may not add to 100 due to rounding.

[15] Total fatal crashes do not necessarily represent the represent number of total fatal crashes; multiple contributing factors may contribute to one fatal crash.

Table 5 Driver Restraint Usage in Lowndes County 2005-2007

	Valdosta UZA		Lowndes Rural		Lowndes County	
	D1/D2	Fatal	D1/D2	Fatal	D1/D2	Fatal
None	288/231	10/3	237/82	10/1	525/313	20/4
Lap/Shoulder	4730/4431	9/6	1751/1066	10/5	6481/5497	19/11
Helmets	44/42	0/3	26/11	1/1	70/53	1/4
Unknown	3622/2913	3/3	285/112	0/0	3907/3025	3/3
Other	85/162	0/7[16]	17/15	1/15	102/177	1/22
Note: Shows driver of vehicle 1 (D1) and driver of vehicle 2 (D2), Other includes 'null' values, lap belt only, shoulder belt only and other.						

Table 6 Passenger Restraint Usage in Lowndes County 2005-2007

	Valdosta UZA		Lowndes Rural		Lowndes County	
	Passengers	Fatalities	Passengers	Fatalities	Passengers	Fatalities
None	866	11	514	10	1380	21
Lap/Shoulder	13440	5	4290	9	17730	14
Child Seat P/I[17]	696/21	0	225/6	0	921/27	0
Helmets	93	3	38	2	131	5
Unknown	9264	2	530	0	9794	2
Other	381	0	123	1	513	1
Note: Other includes 'null' values, lap belt only, shoulder belt only, and other.						

[16] Crashes here represent a 'null' value in the data for driver 2, indicating that these were single vehicle crashes.
[17] Includes proper and improper installation and use of child safety seats.

Serious Crash Types

In the 2007 GOHS Strategic Highway Safety Plan (SHSP), a team was formed to address "serious crash types" in the state of Georgia. This emphasis area was then broken down into three sub-groups, Intersection Safety, Work Zone Safety, and Roadway Departure. The Intersection Safety Subgroup then developed a framework of current system status, problem areas, and goals for improvement. They did this by addressing the 4 E's: Engineering, Enforcement, Education, and Emergency Medical Services.

Intersection Safety

According to the American Association of State Highway and Transportation Officials (AASHTO), there is an average of five crashes at an intersection every minute, and from those crashes, one person dies every hour of every day in the United States. About one in every four fatal crashes in the U.S. occurs in or near an intersection, and research shows that most fatal crashes at intersections involve left turns or rear-end collisions.

Intersection Safety Goal

The Georgia SHSP has set a goal of reducing total annual automobile-related annual fatalities in Georgia by 40 each year. Because Georgia accounts for about 4% of the Nation's annual fatalities, this goal is in line with AASHTO's goal of reducing nation-wide fatalities by 1000 annually. Intersection fatalities account for 25% of the total fatalities on the nation's roadways, which means that to align with Georgia's goal of reducing all roadway fatalities by 40, intersection fatalities should be decreased by 10 each year. The Intersection Safety task force has noted that this means a decrease of 50 fatalities at Georgia intersections by the year 2013.

As shown in Table 8, 60.8 percent of all crashes that occurred in Lowndes County between 2005 and 2007 occurred at an intersection. Of these 6,737 crashes at intersections in Lowndes County, 16 were fatal; however, 28 of the 3,881 crashes not at intersections were fatal. This means that although crashes at intersections occur more often than crashes that do not occur at intersections, they involve fatalities much less frequently. A simple explanation of why crashes that occur at intersections are fatal a smaller percentage of the time is that crashes at intersections generally occur at lower speeds and much more frequently involve following too closely as a casual factor.

Roadway Departure

"Of the 41,059 people killed on our nation's highways in 2007, over 24,000 died when their vehicle left their lane and crashed."[iii] These roadway departures include lane crossings, roll-overs, impacts with off-road objects, and other crashes that occur when a car leaves the lane in which it is traveling. The primary goal of policy makers and law enforcement officials in this area is to ensure that vehicles stay on the road. However, when a vehicle does leave the roadway, the next priority is to ensure that serious crashes are avoided.

To keep drivers on the roadway, several safety measures can be taken including education, signage and pavement markings, and rumble strips, just to name a few. If a car is forced to leave the roadway, roadside barriers, safe structure supports, and median barriers can help prevent a serious crash from occurring. The FHWA offers several guidebooks for reducing the severity of roadway and lane departure crashes and for proactive measures to reduce the likelihood these events will occur.

In Lowndes County from 2005-2007 roadway departure crashes involved several contributing factors. 18% of the crashes involved a driver under the influence of drugs or alcohol. About 14% of the crashes were vehicles that departed the roadway were during rainy or foggy weather. In nearly 10% of the cases where vehicles departed the road, the location of the impact was not listed as being on the roadway;

rather it was off of the roadway, shoulder, and median.

Impaired Drivers

One of the factors that separates this key emphasis area out from the rest is the impairment of drivers can be a contributing factor to many of the other crashes described in this report. The SHSP identifies various goals and partnerships that should be created to reduce the number of impaired drivers on Georgia's roadways. It should be noted that impaired drivers does not only mean drivers who are driving drunk, or under the influence of legal or illegal drugs, it could also mean that the driver feel asleep or had some other form of impairment. The data below will identify these various kinds of impairment as appropriate and what the conditions and results were.

For this key emphasis area all data is the driver of the casual vehicle. Although the data from the secondary vehicle is important it appears to be irrelevant in analyzing impaired drivers. During the study period only two drivers of the secondary vehicle were found to be impaired in all of Lowndes County.

Thirteen of the forty-four fatal crashes in Lowndes County are attributable to some kind of impairment of the causal vehicles' driver. Of these 13 crashes only one of them was attributable to impairments other than alcohol, and that was a physical impairment. Of the twelve fatal crashes attributable to alcohol impairment two-thirds occurred in rural Lowndes County. 522 or 4.71% of all crashes had DUI as a contributing factor. About 27% of all fatal crashes had a contributing factor of DUI, which in this case is driving under the influence of alcohol.

Figure 2 shows the number of crashes in Lowndes County as they relate to the cross-tabulation of the age and impaired condition of the driver in the casual vehicle. As one might expect there is a sharp increase in crashes for drivers aged 21-34 and they were under the influence of alcohol. This is indicative of legal drinking age being 21 and the larger student and military population present in Lowndes County due primarily to Valdosta State University and Moody Air Force Base. It should be noted however that when looking at where these crashes occurred there appears to be no correlation in location near 'popular' night clubs or other locations where alcohol is served on a regular basis and where these populations might visit.

Figure 2 also shows there is a significant number of under aged drivers involved in crashes where alcohol was a factor. This may indicate that more education programs and enforcement is needed for under aged drivers.

Because alcohol related crashes were by far a majority of the impaired condition of the driver for the following analyses only the 551 alcohol impaired condition crashes were examined for all of Lowndes County.

When analyzing the day of the week and time of day of crashes in relationship to the impairment condition of the drive one might expect that alcohol related crashes occurred more on the weekend. While this is true, Figure 3 shows there is also a significant amount of crashes that occur after 5 pm and before 4 am each week night.

Of the forty-four fatal crashes in Lowndes County, alcohol test results (from breath, blood or urine tests) show only two fatal crashes for these test results. In only one of these crashes did the driver have a Blood Alcohol Level greater than 0.08, the other test result returned no evidence of alcohol.

Of the 551 crashes in Lowndes County with alcohol as an impaired condition of the driver 84% of the drivers were issued a citation as a result of the crash. From the information that is available it cannot be determined if the citation was issued for an alcohol offense or not.

As described previously several local agencies are part of programs to reduce impaired drivers in Lowndes County including Operation Zero Tolerance, H.E.A.T. (Highway Enforcement of

Aggressive Traffic) and SADD, among other programs and enforcement efforts.

Table 7 Intersection Crashes and Severity

Is Crash at Intersection?	Fatal Crash		Non-Fatal Injury Crash		PDO		Total
Null Value	0	0%	122	3.8%	348	4.4%	**470**
Yes	16	36.4%	1825	57.4%	4896	62.3%	**6737**
No	28	63.6%	1233	38.8%	2620	33.3%	**3881**
Total	**44**	**0.4%**	**3180**	**26.7%**	**7864**	**70.9%**	**11088**

Table 8 Fatal Crashes and Impaired Drivers

	Valdosta UZA		Lowndes Rural		Lowndes County	
	Total	Fatal	Total	Fatal	Total	Fatal
Not Drinking	7666	9	1885	10	9551	19
Not Known if UI	683	8	154	4	837	12
Drinking not Impaired	30	0	23	0	53	0
UI Alcohol	296	4	185	8	481	12
UI Drugs	14	0	10	0	24	0
UI Alcohol & Drugs	14	0	3	0	17	0
Physical Impairment	23	1	15	0	38	1
Fell Asleep	43	0	41	0	84	0
Null Value	2	0	1	0	3	0
Total	8771	22	2317	22	11088	44
Note: UI is Under the Influence						

Table 9 DUI as a Contributing Factor in All Crashes

	Valdosta UZA				Lowndes Rural				Lowndes County			
	Total	%	Fatal	%	Total	%	Fatal	%	Total	%	Fatal	%
1st Factor	277	3.16	4	18.18	184	7.94	7	31.82	461	4.16	11	25
2nd Factor	41	.47	0	0	6	.26	0	0	47	.42	0	0
3rd Factor	5	.06	0	0	7	.30	1	4.55	12	.11	1	2.27
4th Factor	1	.01	0	0	1	.04	0	0	2	.02	0	0
Total	324	3.7	4	18.18	198	8.54	8	36.37	522	4.71	12	27.3

Figure 3 Age of Driver in Alcohol and Drug Related Crashes in Lowndes County

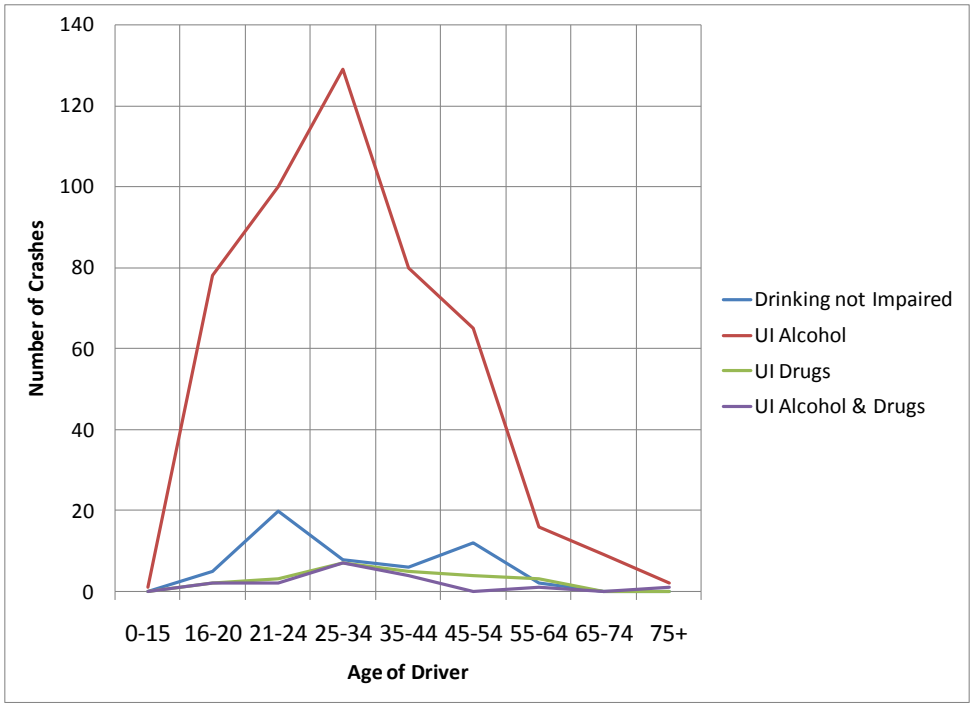
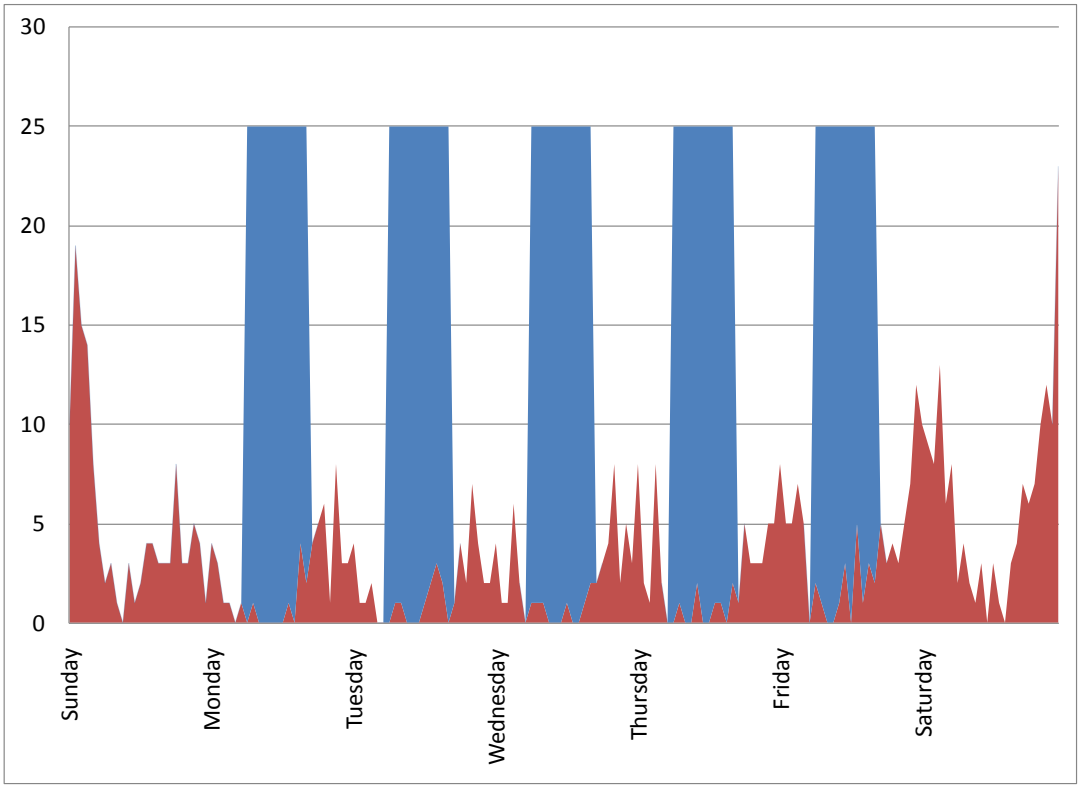


Figure 4 Alcohol Related Crashes by Time of Day and Day of Week



Age Related Issues

Age-related issues in driving generally focus on two main age groups, young drivers, or drivers between the ages of 15 and 20, and older drivers, or drivers over the age of 65. These two age-groups are focused on for several reasons, but the main focal point is that drivers younger than 20 and older than 75 have significantly higher fatality rates per vehicle miles traveled than drivers aged 30-59[iv]. According to the National Highway Traffic Safety Administration, in 2006 drivers aged 15-20 years old accounted for 6.4 percent of the total number of drivers on the Nation's roads. However, in the same year, 12.9 percent of the drivers involved in fatal crashes were in this age group, and 16 percent of all police-reported crashes involved young drivers[v]. This means that young drivers account for more crashes, both fatal and non-fatal, than any other age group.

The GOHS Strategic Highway Safety Plan acknowledges that young drivers generally have higher rates of crashes and fatalities than older drivers. This holds true for Lowndes County, where from 2005-2007, the only age groups that accounted for over 5% of crashes reported were both the 18 and 19 year olds. The 16-20 year old age group accounted for a total of 18.64% of crashes in Lowndes County, while only accounting for 6.3% of drivers[vi].

The high number of younger and older drivers in crashes suggests that there is a strong causal factor that leads these drivers to be in more wrecks. Some of the main factors that lead young drivers to be involved in more fatal crashes include inexperience, increased numbers of speeders, and increased cell phone use and text messaging. The GOHS has concluded that in 2006 alone, young drivers ages 16 and 17 had a crash rate per 100,000 that was 184 times higher than the rate for drivers over 24.

Older drivers also have higher risk of being involved in a fatal crash for several reasons. First, older individuals have deteriorating health and perception issues. "Increased crashes at intersections among older drivers are associated with crash over-involvement, that is, a higher mental burden connected with making left turns or high prevalence of visual field problems."[vii] This means that older drivers may have greater difficulty perceiving dangers associated with turning at intersections because of visual and perceptual deficiencies that come naturally with age. Another factor that may play a role in older drivers being involved in fatal crashes is "increased fragility", or the fact that older drivers are more vulnerable to injuries and, what may be less severe injuries to younger drivers, could be life threatening events to older drivers.

Non-motorized Users

The Georgia SHSP found that statewide bicycle related crashes accounted for less than one quarter of one percent of all crashes; however they make up more than one percent of all crash fatalities. For pedestrians these numbers are even more astounding, again comprising less than one percent of all crashes but more than 10% of all crash fatalities. In both of these cases this data represents the vulnerability of bicyclists and pedestrians compared to other roadway users.

Of all of the crashes in Lowndes County involving a bicycle or pedestrian more than 87% of them occurred in the Valdosta Urbanized Area. This is something that is not surprising due to the greater population density as well as the ease of walking or riding a bike to a destination.

As shown in Figure 5, bicyclists in all of Lowndes County were identified as the casual vehicle of crashes at least twice as often in most age groups as opposed to being the secondary vehicle. This may mean that more education needs to be provided to bicycle riders, especially in children ages 10-19.

Figure 6, also shows that bicycles were the causal vehicle in more crashes when identified by the type of roadway. One note of concern is that crashes involving bicycles on arterial roadways (examples include St. Augustine Road, Ashley Street, Patterson Street, etc.) bicyclists were two and one-half times more likely to be identified as the causal vehicle. While crashes also occurred on other types of roadways, it is clear that more crashes involving bicycles are on major roadways in the community.

Because of the large student population in the City of Valdosta, from the City and County School systems to Valdosta State University and Valdosta Technical College the age of bike riders and pedestrians was compared to the time of crashes involving bikes and pedestrians. Surprisingly there seemed to be no clear increase in crashes for bicyclist and pedestrians before or after typical school hours. In general more crashes occurred across all age groups during typical day-light hours.

The Georgia SHSP identifies several proactive recommendations in each of the 4 E categories for reducing bicycle and pedestrian crashes including: education of all drivers, cyclists and pedestrians of the ‘rules of the road’, and implementation of bicycle/pedestrian facility projects. Locally more bicycle/pedestrian facility projects are being planned and implemented in the community, providing safe alternatives for cyclists and pedestrians to travel off of the roadway. The local governments and schools systems are partnering to develop Safe Routes to School Plans, which may include future infrastructure and education projects and programs for younger school-aged children.

Vehicle Type

Heavy Trucks

Aside from privately owned passenger vehicles, which account for 94.5% of all crashes in Lowndes County, commercial vehicles have the highest crash rates, accounting for 390 crashes, or 3.5% of all crashes between 2005 and 2007. However, for that same time period, commercial vehicles accounted for 15.9% of all fatal crashes on Lowndes County roads. This means that although commercial vehicles account for a much smaller percentage of wrecks they account for a much higher percentage of fatal crashes.

152 of the crashes involving commercial vehicles for which a location was provided occurred on I-75 in Lowndes County. The other 238 occurred on local or State roads off of the Interstate system. This is a number that would generally be expected to be high because a vast majority of commercial vehicles traveling in Lowndes County are passing through on I-75.

Hazardous Materials

A special group of commercial vehicles that should be distinguished is those that carry hazardous materials. These vehicles are important because they carry certain materials which could be harmful to both people and the environment and as such must be dealt with in a cautious manner by law enforcement and safety officials. Of all crashes that occurred in Lowndes County between 2005 and 2007, 5 involved a vehicle carrying hazardous materials. Of those 5 crashes, none involved spillage of the hazardous materials and all were Property Damage Only (PDO) crashes, meaning no one was injured.

Motorcycles

Motorcycles are also of special importance because they pose a special risk to the driver and passenger of the motorcycle. Due to the nature of a motorcycle and the lack of safe enclosure for the riders, motorcycles offer little protection and, in general, crashes involving motorcycles often involve injuries. The GOHS SHSP states that "two-wheeled motorcycles are more difficult to operate and more unstable than four-wheeled cars and trucks"[viii] Not only are they more difficult to operate in general, but motorcycles are also much smaller than normal passenger vehicles and much more difficult for other drivers to spot and be aware of on the road.

Between 2005 and 2007 83 crashes involved either a motorcycle or scooter of some sort. Of those 83, 65 either involved injury or death. This means that motorcycle crashes in Lowndes County had an injury-or-worse rate of a little more than 78%. To correlate this to crash rates for passenger vehicles including cars and pickup trucks, in which 29% of crashes involve injury or death, motorcycles are 169% more likely than four-wheeled passenger vehicles to be involved in crashes involving injury or death.

Certain measures currently being taken and addressed in the SHSP to help decrease the number and severity of crashes involving motorcycles on Georgia's roads include: providing funding for motorcycle education and preventative countermeasures; providing incentives to communities or organizations to promote safe motorcycle operations including proper helmet usage; and retaining Georgia's mandatory helmet law. Future opportunities that are in consideration have also been addressed in the plan. Some of these include: encouraging all motorcycle riders on public roads to obtain proper licensing; developing PSA's to promote the "Share the Road" message to both motorcyclists and other motorists; conducting motorcycle forums in communities with especially high rates of motorcycle incidents; and participating in motorcycle rallies and other events to promote the Georgia Motor Safety Program throughout the State.

Table 10 Bicycle and Pedestrian Crashes in Lowndes County

	Valdosta UZA				Lowndes Rural				Lowndes County			
	Total	%	Fatal	%	Total	%	Fatal	%	Total	%	Fatal	%
Bicycle	54	0.62	2	9.09	5	0.22	0	0	59	0..53	2	4.55
Pedestrian	69	0.79	2	9.09	13	0.56	1	4.55	82	0.74	3	6.82
Note: Percentages represent the percent of these types of crashes or fatal crashes in respect to the given geography.												

Figure 5 Age of Bicycle Riders and Causal or Secondary Vehicles

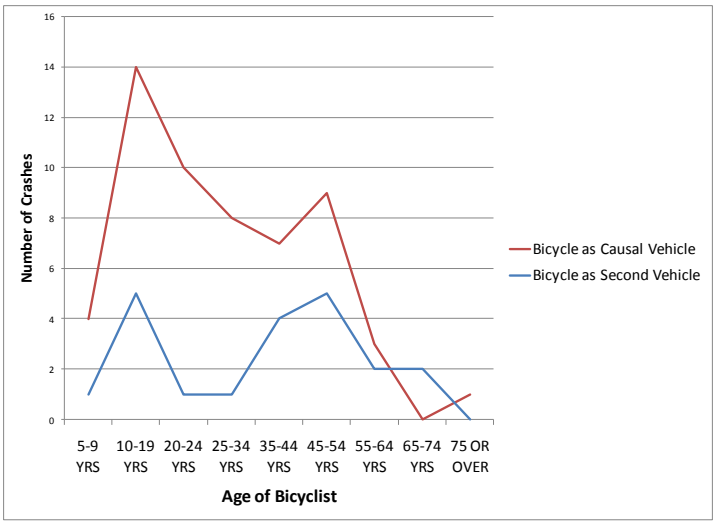
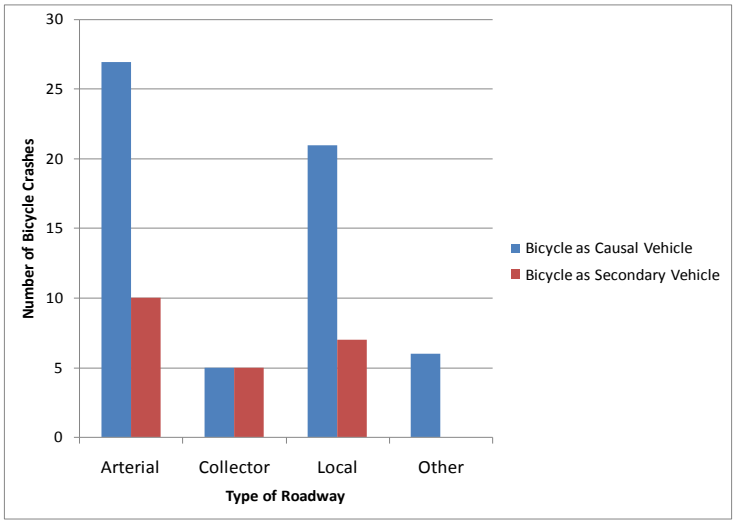


Figure 6 Number of Bicycle Crashes by Type of Roadway



Trauma System

"Death rates in Georgia from trauma are significantly higher than the national average. In Georgia, 62 of every 100,000 people are likely to die of traumatic injury. Nationally, the death rate is lower – 54 people per 100,000. If we did nothing more than improve our system to the level of the national average, we would save approximately 712 additional lives every year.

The number of individuals in Georgia affected by trauma can still only be estimated and sized in relative terms. Based upon an analysis of Georgia's 2003 and 2004 NTRACS® data, relative to the total number of acute care hospitals in Georgia, it is probable that the volume and impact of trauma in Georgia has been significantly underestimated. In 2003, the data presented by the 15 participating trauma centers provided representative data on 9,612 patients, which met the Georgia Trauma Registry criteria. In 2004, the data presented by the 14 participating trauma centers provided representative data on 10,661 patients that met the Georgia Trauma Registry criteria. Based upon an examination of other available data, it is estimated that the total annual volume of patients that meet the strict criteria of the Georgia Trauma Registry is in the vicinity of 43,879 to 52,300 persons. This number could easily be doubled if a less medically specific criterion were applied to all blunt and penetrating injuries that required acute care attention."[18]

In 27% of the crashes in Lowndes County an ambulance was notified within ten minutes. In nearly 66% of the crashes an ambulance arrived within 20 minutes. In over 22% of the crashes it took the ambulance more than 46 minutes to arrive at a hospital. Overall however, in 25% of the crashes the ambulance arrived at the hospital between 21 and 45 minutes from the time of the crash.

Some of what this data tells us is the level of emergency service care present in Georgia. The Georgia Office of Emergency medical Services/Trauma is responsible for implementing a plan to improve the trauma and emergency care system in the State. Currently there are 15 designated trauma centers (of various levels) in Georgia. In order for Georgia to be adequately served approximately 30 trauma centers strategically located throughout the state are needed to provide emergency preparedness needs.[19]

The closest Level II Trauma Center to Valdosta is Archbold Memorial Hospital in Thomasville, GA which is about a one hour drive west of Valdosta; the nearest Level I Trauma Center to Valdosta is Shands Healthcare at the University of Florida in Gainesville, FL, which is nearly a two hour drive south of Valdosta.

Although the crash data found in the following tables appears to be incomplete and often misleading, some information can be gathered from it. The following tables should not be compared to one another, but each considered independently. For the most part the data in Lowndes County was consistent with data from Georgia in its entirety.

The SHSP has outlined several opportunities for the improvement of the emergency services and trauma system in the State of Georgia, these include:

- Continued system development of the State trauma system.
- Expansion of the systematic trauma system data linkages to provide objective information.
- Implementation of the NEMSIS (National EMS Information System).
- Systematic study, analysis, characterization, and improvement of EMS system responses based upon regional needs.

[18] Source: Georgia SHSP, 2007.

[19] Source: Georgia SHSP, 2007.

- Systematic development and analysis of trauma system outcome data.

Locally, agencies like the VLMPO and county and city law enforcement continue to review data as provided in these tables will show the need for regional trauma centers throughout Georgia. This data also shows the need for better record and data collection as discussed the next section.

Table 11 Time from Crash to Ambulance Notification

	Lowndes County		Georgia	
	#	%	#	%
No Ambulance	28	63.6%	3038	64.7%
1-10 Minutes	12	27.3%	1491	31.8%
11-20 Minutes	2	4.5%	82	1.7%
21-45 Minutes	2	4.5%	34	.72%
46-60 Minutes	0	0%	9	.2%
61-90 Minutes	0	0%	7	.15%
91-180 Minutes	0	0%	5	.11%
Over 180 Minutes	0	0%	30	.64%
Total Fatal Crashes	44		4696	

Table 12 Time from Ambulance Notification to Arrival on Scene

	Lowndes County		Georgia	
	#	%	#	%
Did Not Arrive/No Ambulance	13	29.5%	1144	24.4%
1-10 Minutes	23	52.3%	2595	55.3%
11-20 Minutes	6	13.6%	830	17.7%
21-45 Minutes	1	2.3%	109	2.3%
46-60 Minutes	1	2.3%	5	.11%
61-90 Minutes	0	0%	7	.15%
91-180 Minutes	0	0%	0	0%
Over 180 Minutes	0	0%	6	.13%
Total Fatal Crashes	44		4696	

Table 13 Time from Ambulance Arrival on Scene to Hospital

	Lowndes County		Georgia	
	#	%	#	%
Null/No Ambulance	21	47.7%	1933	41.2%
1-10 Minutes	1	2.3%	14	.3%
11-20 Minutes	0	0%	161	3.4%
21-45 Minutes	12	27.3%	1129	24%
46-60 Minutes	5	11.4%	495	10.5%
61-90 Minutes	2	4.5%	557	11.9%
91-180 Minutes	3	6.8%	364	7.8%
Over 180 Minutes	0	0%	43	.92%
Total Fatal Crashes	44		4696	

Table 14 Time from Crash to Hospital

	Lowndes County		Georgia	
	#	%	#	%
Null/No Ambulance	22	50%	1941	41%
1-10 Minutes	1	2.3%	36	.77%
11-20 Minutes	0	0%	155	3.3%
21-45 Minutes	11	25%	1096	23.3%
46-60 Minutes	4	9.1%	493	10.5%
61-90 Minutes	3	6.8%	544	11.6%
91-180 Minutes	3	6.8%	370	7.9%
Over 180 Minutes	0	0%	61	1.3%
Total Fatal Crashes	44		4696	

Traffic/Crash Records and Data Analysis

As previously noted in this report the crash data provided by the Georgia Department of Transportation contains errors and other data anomalies that make analysis difficult. GDOT is the statutorily designated agency to maintain the States' crash reports and other traffic records. GDOT has recently produced a Strategic Plan for Traffic Records Improvement, which includes more than $7 million to improve the data collection and reporting system. Some of the current and future strategies outlined in the plan include:

- Synchronize and coordinate efforts of various law enforcement and governmental entities
- Provide a full-time traffic record coordinator to provide guidance and implement the strategic plan
- Promote and support research into highway safety in Georgia
- Develop and implement linkages among traffic records systems that provide the capacity to analyze crash data and identify crash prevention strategies

Locally, the City of Valdosta and other jurisdictions review crash data and develop roadway improvements or enforcement programs around problem areas.

Traffic Incident Management

As identified in the Georgia SHSP the Traffic Incident Management Enhancement Task Force is charged with improving the safety of motorists and emergency responders while reducing congestion caused by traffic incidents.

The Task Force works to reduce the number of secondary crashes and reduce crash caused congestion by clearing the roadway of the crash and quickly. "Roadway Clearance Time - All Lanes Open" is the primary performance measure for traffic incident management in Georgia. Roadway clearance time is the "time, in minutes, between first the recordable awareness (detection/notification/verification) of an incident by a responsible agency and first confirmation that all lanes are available for traffic flow"[20]. Simply put this time tells responders and traffic management personnel how long it took to get the road open to traffic.

[20] Source: Georgia SHSP, 2007

Day of Week

Many factors influence the number of crashes that occur in a given year, including the month, day and time. Although the date and time do not cause wrecks, they can be indicators of alternative factors that may influence more crashes at a given time. For instance, if a town is a popular spring break location or if there is a major annual sporting or entertainment event that occurs in a given month, increased traffic flow related to the event or seasonal occurrence may be a significant causal factor in increased crash numbers during that time period. In the same sense, time of day may also be a strong indicator of crash numbers.

In Lowndes County as a whole, crashes are more common in March than in any other month, with Friday having significantly higher numbers of crashes than any other day of the week. In the cities of Valdosta and Remerton, Friday crashes account for almost 20% of total crashes.

Monthly increases and decreases in crash numbers are more difficult to explain than daily or hourly fluctuations because the greater the length of time that passes between evaluations, the more contributing factors could be at work. March may have significantly higher crash numbers than any other month in Lowndes County, including Valdosta and Remerton, for several reasons. The first factor leading to higher crashes in March could be student presence. According to Spring 2009 enrollment numbers, Valdosta State University (VSU) has a student body of 10,740 students including both Graduate and Undergraduate classes. This means that, when in session, VSU accounts for 22.6 percent of the population of the City of Valdosta and 10.56 percent of the total population of Lowndes County. A correlation can be made between student presence and higher crash rates because the higher number of cars that are on the road when more people are present in the area leads to higher chances of a crash occurring.

A second factor that may influence higher crash numbers in March is Spring Break. Although Lowndes County is not a popular Spring Break destination, it is located on I-75 just north of the Florida state line. Because many students across the Eastern United States travel to Florida for their Spring Break vacations, and I-75 is a major thoroughfare traveled to reach their final destinations, traffic counts along I-75 increase dramatically during this period. Because Valdosta is the last major town before entering the state of Florida, many travelers stop in the area to refuel, eat, or stay for the night. With the increased traffic from the Spring Breakers come increased risks for traffic incidents to occur.

As for the day and time of crashes, Table 2 shows that almost 20% of all crashes in Lowndes County occur on Friday and less than 10% of the crashes occur on Sunday.

Furthermore, as shown in Table 3 and illustrated in Chart 1, most crashes throughout the week occur between the hours of 3:00 PM and 6:00 PM.

As would be expected from these sets of data, Chart 2 shows that the hours during the week most likely to experience higher crash numbers are from 3:00 PM to 6:00 PM on Friday.

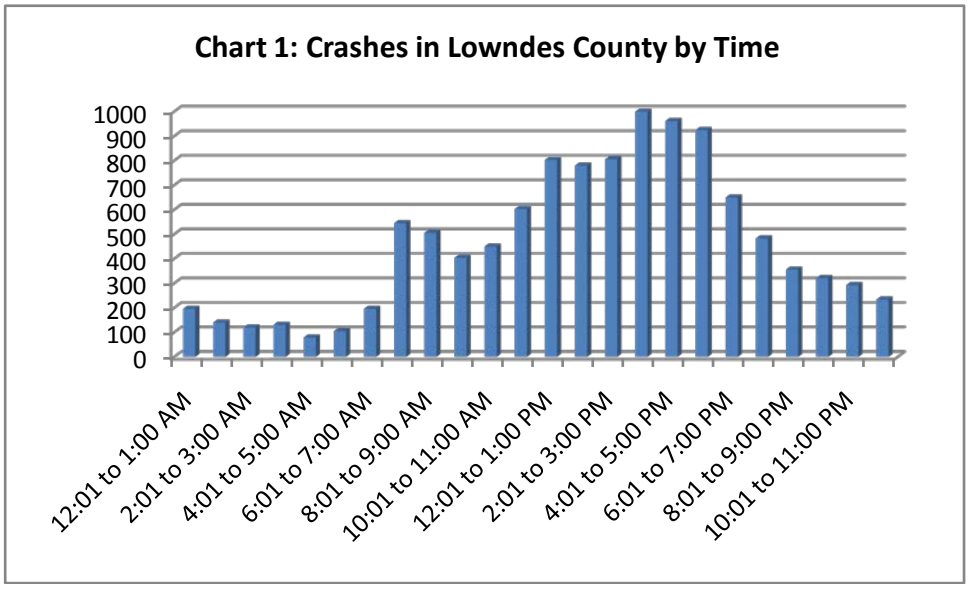
Rail/Vehicle crashes

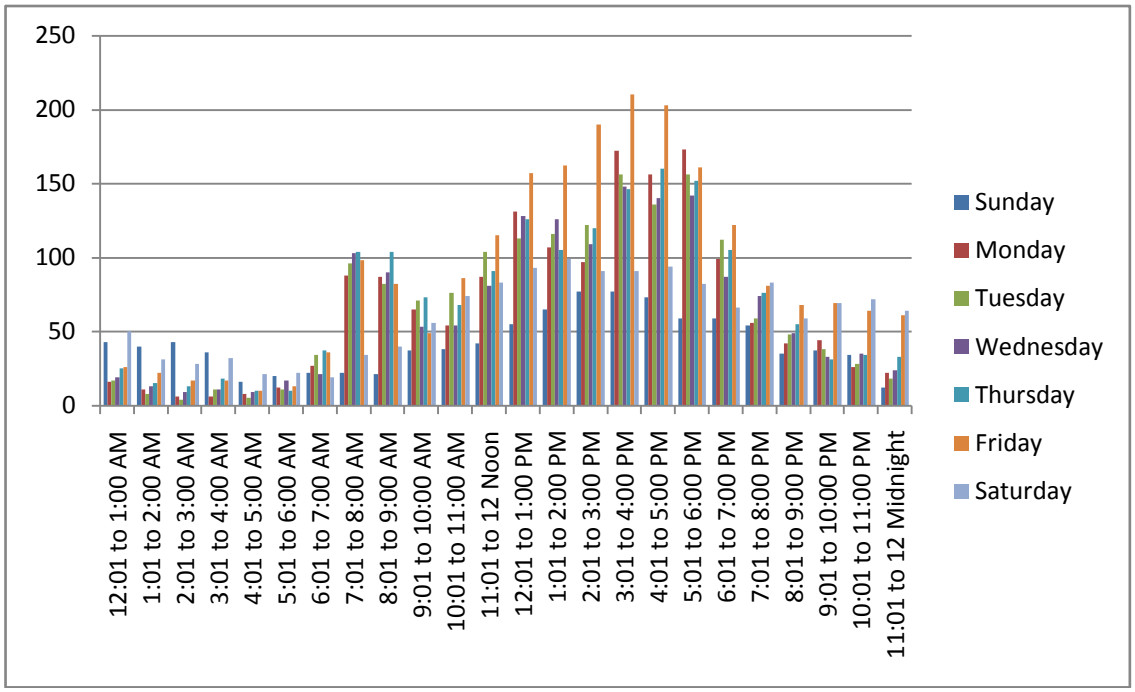
According to the FHWA, in 2007 alone incidents at public highway-rail crossings in the United States resulted in 817 injuries and 299 deaths. In Lowndes County between 2005 and 2007, nine crashes occurred involving a motor vehicle and a train, resulting in four injuries and one fatality. Although these numbers may seem low for Lowndes County, these incidences should not occur at all. Seven of these crashes were attributed to driver error, such as failure to yield and disregarding a traffic sign or signal.

A document from the Secretary of the Department of Transportation entitled the "Secretary's Action Plan: Highway-Rail Crossing Safety and Trespass Prevention" gives recommendations for increasing safety at highway-rail crossings. Many of the goals and objectives listed are relating to upgrading facilities and changing the nature of crossings, however, due to the high volume of driver-error crashes in Lowndes County, the most pertinent section of this document for Lowndes County is "Expanding Educational Outreach." This section outlines possible outreach techniques that have been utilized effectively in other communities, such as the program conducted by the Illinois Commerce Commission (ICC). The ICC has been working with its local communities to develop dynamic educational outreach programs targeted to the individual communities including developing 15 second TV and radio commercials promoting safety at grade crossings and, utility bill inserts with rail-grade crossing safety tips, and poster campaigns directed at educating the public at high foot traffic areas.

Table 1: Month of Crash						
	Lowndes		Valdosta/Remerton		Both	
	#	%	#	%	#	%
January	203	8.76%	692	7.88%	894	8.06%
February	189	8.16%	673	7.66%	862	7.77%
March	222	9.58%	812	9.24%	1034	9.33%
April	208	8.98%	744	8.47%	949	8.56%
May	198	8.55%	671	7.64%	869	7.84%
June	195	8.42%	739	8.41%	932	8.41%
July	190	8.20%	643	7.32%	832	7.50%
August	179	7.73%	757	8.62%	936	8.44%
September	196	8.46%	796	9.06%	992	8.95%
October	191	8.24%	790	8.99%	976	8.80%
November	181	7.81%	761	8.66%	940	8.48%
December	165	7.12%	708	8.06%	872	7.86%
Source: CARE						

Table 2: Day of Week and Crashes All Lowndes		
Value	**Frequency**	**Percentage**
Sunday	1017	9.17%
Monday	1592	14.36%
Tuesday	1621	14.62%
Wednesday	1575	14.20%
Thursday	1711	15.43%
Friday	2119	19.11%
Saturday	1453	13.10%
Source: CARE		




250
200
150
100
50
0
12:01 to 1:00 AM
1:01 to 2:00 AM
2:01 to 3:00 AM
3:01 to 4:00 AM
4:01 to 5:00 AM
5:01 to 6:00 AM
6:01 to 7:00 AM
7:01 to 8:00 AM
8:01 to 9:00 AM
9:01 to 10:00 AM
10:01 to 11:00 AM
11:01 to 12 Noon
12:01 to 1:00 PM
1:01 to 2:00 PM
2:01 to 3:00 PM
3:01 to 4:00 PM
4:01 to 5:00 PM
5:01 to 6:00 PM
6:01 to 7:00 PM
7:01 to 8:00 PM
8:01 to 9:00 PM
9:01 to 10:00 PM
10:01 to 11:00 PM
11:01 to 12 Midnight
Sunday
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday

High Crash Locations

While the previous section primarily focused on fatal crashes, their impacts, causes and how they relate to the overall goals of the Georgia Governor's Office of Highway Safety Strategic Highway Safety Plan, the follow section will look at all crashes in Lowndes County.

The Top 20 crash locations were determined through the CARE 8 software program. The software returned the 20 locations with the most crashes during the three year study period. A secondary ranking is also present in the severity index; it is used to split ties between the numbers of raw crashes. The severity ranking is described as a part of the Top 20 crash location listing. Included in this listing are only crashes at intersections; crashes at mid-block locations are not included.

The City of Valdosta produces and annual crash report examining trends in crashes throughout the City. The City's crash report and this report produced by the MPO are different in several ways, however many of the Top 20 crash locations are the same. One of the biggest differences is that the City crash report includes data from one-vehicle crashes only. The MPO crash report includes all crashes at each location. Because of the concentration of population and traffic volume in and around Valdosta, all of the Top 20 crash locations in Lowndes County are within the Valdosta Urbanized Area. Only two of the crash locations are outside of the City of Valdosta proper (#5 and #20).

On the following pages are the Top 20 crash locations in Lowndes County for the 2005-2007 study period. Also included is the manner of collision and the top contributing factor for these crash locations.

Of note is the manner of collision and the top contributing factor. As can be seen most of the crashes are rear end crashes and are caused by following too closely. This is primarily an issue related to the education of drivers, but is also seen in some of the most congested corridors in the community.

Also included is a table containing planned future improvements to the Top 20 crash locations that may reduce crashes in the future. Included in this listing is the type of improvement, the plan that contains the planned improvement and the time frame for implementation.

Table 15 Top 20 Crash Locations in Lowndes County (Intersections)

	Intersection		Total Crashes	Severity Index[21]	Manner of Collision	Contributing Factor
1	North Valdosta Road	Country Club Drive	122	4.43	Rear End	Following too Close
2[22]	St. Augustine Road	Hill Avenue	93	5.81	Rear End	Following too Close
3[23]	St. Augustine Road	Norman Drive	93	4.3	Rear End	Following too Close
4[24]	Ashley Street	Park Avenue	85	5.18	Rear End, Angle	Following too Close
5	Bemiss Road	Knights Academy Road	82	5.85	Rear End	Following too Close
6	Ashley Street	Oak Street Ext.	81	4.2	Rear End	Following too Close
7	St. Augustine Road	Gornto Road	76	5	Angle	Following too Close
8	Ashley Street	Hill Avenue	72	6.11	Rear End	Following too Close
9	Ashley Street	Northside Drive	69	5.51	Rear End	Following too Close
10	Hill Avenue	Norman Drive	68	2.94	Angle	Failed to Yield
11	Gornto Road	Jerry Jones Road	62	5.16	Rear End	Following too Close
12[25,26]	Ashley Street	Park Avenue	58	5.86	Rear End	Following too Close
13[27]	Norman Drive	Baytree Road	58	5.17	Rear End	Following too Close
14	Patterson Street	Eager Road	52	5.38	Angle	Failed to Yield
15	Gornto Road	Baytree Road	52	1.92	Angle	Following too Close

[21] Severity Index is calculated as: ((Fatality Crashes x 10) + (Class A Injury Crashes x 6) + (Class B x 4) + (Class C x 2)) / Total Crashes

[22] Ranked by total number of crashes then by crash severity rating

[23] Ranked by total number of crashes then by crash severity rating

[24] Ashley Street and Park Avenue are listed twice due to the design of the intersection. These two locations are classified as separate locations, however in reality the intersection of Ashley Street, Park Avenue, Bemiss Road, and Rosedale Place functions as one intersection.

[25] Ranked by total number of crashes then by crash severity rating

[26] Ashley Street and Park Avenue are listed twice due to the design of the intersection. These two locations are classified as separate locations, however in reality the intersection of Ashley Street, Park Avenue, Bemiss Road, and Rosedale Place functions as one intersection.

[27] Ranked by total number of crashes then by crash severity rating

16	Inner Perimeter Road	Oak Street Ext.	47	4.68	Angle	Following too Close
17	Melody Lane	Baytree Road	46	3.91	Angle	Failed to Yield
18	Bemiss Road	Forrest Street	43	4.19	Rear End	Following too Close
19	Ashley Street	Connell Drive	34	3.53	Rear End	Following too Close
20	Inner Perimeter Road	Patterson Street	26	8.46	Rear End	Following too Close

Table 16 Future Improvements to Top 20 Crash Locations

Intersection		Improvement	Plan	Timeline
North Valdosta Road	Country Club Drive	Widening	Valdosta TMP	Long
St. Augustine Road	Hill Avenue	Intersection Improvement	Valdosta TMP	Mid
St. Augustine Road	Norman Drive	Intersection Improvement	Valdosta TMP	Short
Ashley Street	Park Avenue	Intersection Improvement	Valdosta TMP	Short
Bemiss Road	Knights Academy Road	None planned		
Ashley Street	Oak Street Ext.	Intersection Improvement	Valdosta TMP	Short
St. Augustine Road	Gornto Road	Intersection Improvement	Valdosta TMP	Short
Ashley Street	Hill Avenue	None planned		
Ashley Street	Northside Drive	None planned		
Hill Avenue	Norman Drive	Intersection Improvement	Valdosta TMP	Short
Gornto Road	Jerry Jones Road	Widening	Valdosta TMP, Metro 2035	Short
Ashley Street	Park Avenue	Intersection Improvement	Valdosta TMP	Short
Norman Drive	Baytree Road	None planned		
Patterson Street	Eager Road	None planned		
Gornto Road	Baytree Road	Widening	Valdosta TMP	Long
Inner Perimeter Road	Oak Street Ext.	Widening	Valdosta TMP	Short
Melody Lane	Baytree Road	Widening	Valdosta TMP	Long
Bemiss Road	Forrest Street	Widening	Valdosta TMP, Metro 2030	Short
Ashley Street	Connell Drive	New Road, Intersection Improvements	Valdosta TMP	Long/Short
Inner Perimeter Road	Patterson Street	None planned		

Conclusion

This report is intended to provide information to local elected officials, law enforcement, local planners and engineers as well as the public about crashes in Lowndes County. This report has been modeled after the Georgia Governor's Office of Highway Safety Strategic Highway Safety Plan to address the same issues and points as that report.

This report is intended to be used by partner agencies and officials to better address the 4 E's of highway safety: education, engineering, enforcement, and emergency medical response. Agencies can use this report and the data contained herein to better address crash locations, driver behavior, and crash response throughout the community.

This report will be shared with local elected officials, law enforcement officials, emergency response officials, local engineers, and other groups to better inform the public about crashes in Lowndes County.

In the future the locations identified as part of the Top 20 crash locations should be reviewed by local agencies though an analysis that addresses the primary manners of collision and contributing factors at these intersections.

This report will continue to be updated annually with a continuous cycle. The next report will cover the years 2006-2008.

Appendix A

Georgia Department of Transportation — Version 2.0

Page ___ of ___

GEORGIA UNIFORM MOTOR VEHICLE ACCIDENT REPORT

Accident Number 1	Agency NCIC No. 2		County 3		Date Rec. by DOT 4
Date 5	Day of Week 6 ☐ Sun ☐ M ☐ T ☐ W ☐ Th ☐ F ☐ S	Time 7	Off. Arrived 8	Total Number of: 9 Vehicles / Injuries / Fatalities	Inside City Of: 10

Road of Occurrence 11 — 1 ☐ Interstate 2 ☐ Lowest St. Rt. 3 ☐ Co. Road 4 ☐ City St.

At Its Intersection With 12 — 1 ☐ 2 ☐ Lowest St. Rt. 3 ☐ Co. Road 4 ☐ City St.

Not At Its Intersection But 13 — ☐ Miles 1 ☐ North 3 ☐ East ☐ Feet 2 ☐ South 4 ☐ West

Of: 14 — 1 ☐ Interstate 2 ☐ Lowest St. Rt. 3 ☐ Co. Road 4 ☐ city St. 5 ☐ Co. Line

And continuing in the direction checked above, the Next Reference Point is 15 — 1 ☐ Interstate 2 ☐ Lowest St. Rt. 3 ☐ Co. Road 4 ☐ City St. 5 ☐ Co. Line

Corrected Report? Yes ☐ 16

Suppl. To Original? Yes ☐

Hit and Run ? Yes ☐ 17

Driver # 18 — 19 LAST NAME FIRST MIDDLE	Driver # — LAST NAME FIRST MIDDLE
Address 20	Address
Ped # ☐	Ped # ☐
City State Zip DOB 21	City State Zip DOB
22 Driver's License No. 23 Class 24 State 25 ☐ Male ☐ Female	Driver's License No. Class State ☐ Male ☐ Female
Posted Speed 26 / Insurance Co. 27 / Policy No. 28	Posted Speed / Insurance Co. / Policy No.
Year 29 / Make 30 / Model 31 / Telephone No. 32	Year / Make / Model / Telephone No.
VIN 33 / Vehicle Color 34	VIN / Vehicle Color
Tag # / State / County / Year 35	Tag # / State / County / Year
Trailer Tag # 36 / State / County / Year	Trailer Tag # / State / County / Year
37 ☐ Same as Driver / Owner's Last Name / First / Middle	☐ Same as Driver / Owner's Last Name / First / Middle
Address	Address
City State Zip	City State Zip
38 Removed By 39 ☐ Request 40 ☐ List	Removed By ☐ Request ☐ List

Alcohol Test 41	Type	Results 42	Drug Test 43	Type	Results 44	Alcohol Test	Type	Results	Drug Test	Type	Results
Driver Cond 45	Direction Of Travel 46		Vision Obscured 47	Contributing Factors 51		Driver Cond	Direction Of Travel		Vision Obscured	Contributing Factors	
48 Veh Cond	49 Veh Maneuver		Ped. Maneuver 50			Veh Cond	Veh Maneuver		Ped. Maneuver		
Most Harmful Event 52	Veh Class: 53		Veh Type: 54			Most Harmful Event	Veh Class:		Veh Type:		
Traffic Ctrl 55	56 Device Inoperative? ☐ Yes ☐ No					Traffic Ctrl	Device Inoperative? ☐ Yes ☐ No				

Injured Taken To: 57 — By:

58 EMS Notified Time / EMS Arrival Time / Hospital Arrival Time / 59 Photos Taken: ☐Yes ☐No / By:

60 Report By: / Department / Report Date — 61 Checked By: / Date Checked

62 Witness(es): Name / Address / City / State / Zip Code / Telephone No.

63 DOT MICROFILM NUMBER (DO NOT WRITE IN THIS SPACE)

COMMERCIAL VEHICLES ONLY

Carrier Name 64	Carrier Name
Vehicle # 65	Vehicle #
66 Address / State / Zip	Address / State / Zip
No. of Axles 67 / G.V.W.R. 68 / 69 Fed. Reportable 1 ☐ Yes 2 ☐ No / Cargo Body Type 70	No. of Axles / G.V.W.R. / Fed. Reportable 1 ☐ Yes 2 ☐ No / Cargo Body Type
Vehicle Config. 71 / I.C.C.M.C. # 72 / U.S. D.O.T. # 73 / Interstate ☐ 74 Intrastate ☐	Vehicle Config. / I.C.C.M.C. # / U.S. D.O.T. # / Interstate ☐ Intrastate ☐
75 C.D.L.? 1 ☐ Yes 2 ☐ No 76 C. D.L. Suspended? 1 ☐ Yes 2 ☐ No	C.D.L.? 1 ☐ Yes 2 ☐ No C.D.L. Suspended? 1 ☐ Yes 2 ☐ No
77 Vehicle Placarded? 1 ☐ Yes 2 ☐ No 78 Hazardous Materials? 1 ☐ Yes 2 ☐ No	Vehicle Placarded? 1 ☐ Yes 2 ☐ No Hazardous Materials? 1 ☐ Yes 2 ☐ No
79 Released? 1 ☐ Yes 2 ☐ No	Released? 1 ☐ Yes 2 ☐ No
If YES, Name or 4 Digit Number from Diamond or Box: 80	If YES, Name or 4 Digit Number from Diamond or Box:
1 Digit Number from Bottom of Diamond: 81	1 Digit Number from Bottom of Diamond:
__ Ran Off Road __ Down Hill Runaway __ Cargo Loss or Shift __ Separation of Units	__ Ran Off Road __ Down Hill Runaway __ Cargo Loss or Shift __ Separation of Units

Georgia Department of Transportation Version 2.0

Back of the Accident Report Form

The back of the report contains items for all vehicles. This is where the reporting officer records remarks, draws required diagrams, and records what may have contributed to the accident.

83 PAGE _____ OF _____

REMARKS 82

INDICATE ON THIS DIAGRAM WHAT HAPPENED
84

INDICATE NORTH

CITATIONS – VEHICLE # _____85

CITATIONS – VEHICLE # _____

First Harmful Event 86	Traffic-Way Flow 87	Weather 88	Surface Cond. 89	Light Cond. 90	Manner Of Collision 91	Location At Area Of Impact 92	Road Comp. 93	Road Def. 94	Road Character 95A	Construction/Maintenance Zone 95B

	96 VEH #_____	VEH# _____
97 Number of Occupants		
98 Point of Initial Contact		
99 Damage To Vehicles		

100 SKID DISTANCE BEFORE IMPACT _____ VEH. AFTER _____ VEH. Width of Road

_____ VEH. _____ VEH. _____101_____

Damage Other Than Vehicle: 102 Owner:

Occupants 103

Driver #	Or Pedestrian #
Driver #	Or Pedestrian #

LAST NAME	FIRST	ADDRESS	CITY	STATE	ZIP	AGE	SEX	VEH #	POS	INJURY	TAKEN FOR TREAT	EJECT	SAFETY EQUIP	EXTRIC	AIR BAG
						X	X	X	X	XXXXX	XXXXX	XXXX	XXXXX	XXXXX	XXXX

MAIL TO: Georgia Department of Transportation, ACCIDENT REPORTING UNIT, P.O. BOX 80447, CONYERS, GA 30013-8447

Georgia Department of Transportation

Version 2.0

Codes and conditions used for completing the **'front'** of the Accident Report.

ALCOHOL AND/OR DRUG TEST GIVEN
1 - Yes 2 - No 3 - Refused

TYPE TEST
1 - Blood 2 - Breath 3 - Urine 4 - Other

DRIVER CONDITION
1 - Not Drinking
2 - Not Known if U.I.
3 - Drinking Not Impaired
4 - U.I. Alcohol
5 - U.I. Drugs
6 - U.I. Alcohol & Drugs
7 - Physical Impairment
8 - Apparently Fell Asleep

DIRECTION OF TRAVEL
1 - North 2 - South 3 - East 4 - West

VISION OBSCURED BY
1 - Not Obscured
2 - Headlights
3 - Sunlight
4 - Parked Vehicle
5 - Trees, Bushes
6 - Rain, Snow, Ice on Windshield
7 - Other

VEHICLE CONDITION
1 - No Known Defects
2 - Tire Failure
3 - Brake Failure
4 - Improper Lights
5 - Steering Failure
6 - Slick Tires
7 - Other

VEHICLE MANEUVER
1 - Turning Left
2 - Turning Right
3 - Making U-turn
4 - Stopped
5 - Straight
6 - Changing Lanes
7 - Backing
8 - Parked
9 - Passing
10 - Negotiating A Curve
11 - Entering/Leaving Parking
12 - Entering/Leaving Driveway

PEDESTRIAN MANEUVER
1 - Crossing, Not At Crosswalk
2 - Crossing at Crosswalk
3 - Walking with Traffic
4 - Walking Against Traffic
5 - Pushing Or Working on Vehicle
6 - Other Working in Road
7 - Playing Roadway
8 - Standing in Roadway
9 - Off Roadway
10 -Other
11 -Darting Into Traffic

FIRST HARMFUL EVENT/MOST HARMFUL EVENT NON-COLLISION
1 - Overturn
2 - Fire/Explosion
3 - Immersion
4 - Jackknife
5 - Other Non-Collision

COLLISION WITH OBJECT NOT FIXED
6 - Pedestrian
7 - Pedalcycle
8 - Railway Train
9 - Animal
10 - Parked Motor Vehicle
11 - Motor Vehicle In Motion
12 - Motor Vehicle In Motion - In Other Roadway
13 - Other Object (Not Fixed)
14 - Deer

COLLISION WITH FIXED OBJECT
15 - Impact Attenuate
16 - Bridge Pier/Abutment
17 - Bridge Parapet End
18 - Bridge Rail
19 - Guardrail Face
20 - Guardrail End
21 - Median Barrier
22 - Highway Traffic Sign Post
23 - Overhead Sign Support
24 - Luminaire light Support
25 - Utility Pole
26 - Other Post
27 - Culvert
28 - Curb
29 - Ditch
30 - Embankment
31 - Fence
32 - Mailbox
33 - Tree
34 - Other - Fixed Object

CONTRIBUTING FACTORS
1 - No Contributing Factors
2 - D.U.I.
3 - Following Too Close
4 - Failed to Yield
5 - Exceeding Speed Limit
6 - Disregard Stop Sign/Signal
7 - Wrong Side Of Road
8 - Weather Conditions
9 - Improper Passing
10 - Driver Lost Control
11 - Changed Lanes Improperly
12 - Object Or Animal
13 - Improper Turn
14 - Parked Improperly
15 - Mechanical Or Vehicle Failure
16 - Surface Defects
17 - Misjudged Clearance
18 - Improper Backing
19 - No Signal/Improper Signal
20 - Driver Condition
21 - Driver's Vehicle
22 - Too Fast For Conditions
23 - Improper Passing Of School Bus
24 - Disregard Police Officer
25 - Distracted
26 - Other
27 - Cell Phone
28 - Inattentive

VEHICLE CLASS
1 - Privately Owned
2 - Police
3 - Fire
4 - School
5 - Other Govt. Owned
6 - Military
7 - Commercial Vehicle (For Acc. Reporting Purposes Only)
8 - Other

VEHICLE TYPE
1 - Passenger Car
2 - Pickup Truck
3 - Truck Tractor (Bobtail)
4 - Tractor/Trailor
5 - Tractor W/Twin Trailers
6 - Logging Truck
7 - Logging Tractor/Trailer
8 - Single Unit Truck
9 - Panel Truck
10 - Van
11 - Utility Passenger Vehicle
12 - Vehicle With Trailer
13 - Bus
14 - Truck Towing House Trailer
15 - Ambulance
16 - Motorized Recreational Vehicle
17 - Motorcycle, Scooter, Minibike
18 - Moped
19 - Pedalcycle, Bicycle
20 - Farm or Construction. Equip.
21 - All Terrain Vehicle
22 - Other
23 - Go cart

TRAFFIC CONTROL
0 - Gates
1 - No Control Present
2 - Traffic Signal
3 - RR Signal/Sign
4 - Warning Sign
5 - Stop Or Yield Sign
6 - No Passing Zone
7 - Lanes
8 - Other
9 - Flashing Lights

CARGO BODY TYPE
1 - Van (Encl. Box)
2 - Auto Carrier
3 - Bus
4 - Dump
5 - Garbage/Refuse
6 - Flatbed
7 - Cargo Tanker
8 - Concrete Mixer
9 - Other

VEHICLE CONFIGURATION
1 - Bus (Seating for More Than 15 Passengers)
2 - Single Unit Truck: 2 Axles
3 - Single Unit Truck: 3 or More Axles
4 - Truck Trailer
5 - Truck Tractor (Bobtail)
6 - Tractor Trailer
7 - Tractor With Twin Trailers
8 - Unknown Heavy Truck (Cannot Classify)

Codes and conditions used for completing the **'back'** of the Accident

TRAFFIC-WAY FLOW
1 - Two-way Trafficway With No Physical Separation
2 - Two-way Trafficway With a Physical Separation
3 - Two-way Trafficway With a Physical Barrier
4 - One-way Trafficway
5 - Continuous Turning Lane

WEATHER
1 - Clear
2 - Cloudy
3 - Rain
4 - Snow
5 - Sleet
6 - Fog
7 - Other

SURFACE CONDITION
1 - Dry
2 - Wet
3 - Snowy
4 - Icy
5 - Other
6 - Mud
7 - Sand
8 - Slush
9 - Oil

LIGHT CONDITION
1 - Daylight
2 - Dusk
3 - Dawn
4 - Dark - Lighted
5 - Dark - Not Lighted

MANNER OF COLLISION
1 - Angle
2 - Head On
3 - Rear End
4 - Sideswipe - Same Direction
5 - Sideswipe - Opposite Direction
6 - Not A Collision With a Motor Vehicle

LOCATION AT AREA OF IMPACT
1 - On Roadway
2 - On Shoulder
3 - Off Roadway
4 - Median
5 - Ramp
6 - Gore

ROAD COMPOSITION
1 - Concrete
2 - Black Top
3 - Tar And Gravel
4 - Dirt
5 - Gravel
6 - Other

CONTRIBUTING ROAD DEFECTS
1- No Defects
2 - Defective Shoulders
3 - Holes, Deep Ruts, Bumps
4 - Loose Material On Surface
5 - Water Standing
6 - Road Under Construction
7 - Running Water
8 - Other

ROAD CHARACTER
1 - Straight And Level
2 - Straight On Grade
3 - Straight On Hillcrest
4 - Curve And Level
5 - Curve On Grade
6 - Curve On Hillcrest

DAMAGE TO VEHICLE
1 - None
2 - Slight
3 - Moderate
4 - Extensive
5 - Fire Present

AGE
00 - Up To One Year
01 - 97 Actual Age
98 - Ninety-eight Or Older
99 - Unknown

SEX
M - Male F - Female

TAKEN FOR TREATMENT
1 - Yes 2 - No

INJURY CODE
0 - Not Injured
1 - Killed
2 - Serious
3 - Visible
4 - Complaint

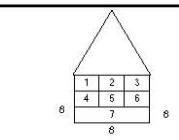
Construction / Maintenance Zone Codes
0 - None 1 - Construction 2 - Maintenance 3 - Utility 4 - Unknown Type

EJECTION
1 - Not Ejected
2 - Trapped
3 - Totally Ejected
4 - Partially Ejected

SAFETY EQUIPMENT
0 - None Used
1 - Shoulder Belt
2 - Lap Belt
3 - Lap and Shoulder Belt
4 - Child Safety Seat (Property Used)
5 - Child Safety Seat (Improperly Used)
6 - Motorcycle Helmet
7 Bicycle Helmet
8 - Unknown

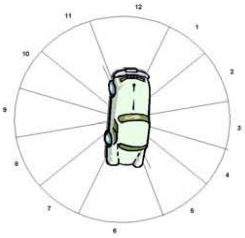
EXTRICATION (Equipment Used)
1 - Yes 2 - No

AIR BAG FUNCTION
0 - No Air Bag In This Seat
1 - Deployed Air Bag
2 - Non-Deployed Air Bag
3 - Deployed Side
4 - Deployed other Directions
5 - Deployed Multiple Directions
6 - Non-Deployed Front
7 - Non-Deployed Side
8 - Non-Deployed Other Direction
9 - Non-Deployed Multiple Direction



SEATING POSITION

POINTS OF INITIAL CONTACT
00 - Overturned
13 - Top
14 - Undercarriage
15 - Non-Contact Vehicle



Appendix B

[i] GA SHSP, http://www.gahighwaysafety.org/shsp/
[ii] 2007 Ga Strategic Highway Safety plan, p.2, http://www.gahighwaysafety.org/shsp/shsp2007.pdf
[iii] FHWY Safety, http://safety.fhwa.dot.gov/roadway_dept/
[iv] GA Older Driver Task Force, http://www.gahighwaysafety.org/olderdrivertaskforce/odtffacts.html
[v] NHTSA Traffic Safety Facts 2006, www.nhtsa.dot.gov/.../staticfiles/DOT/NHTSA/NCSA/Content/TSF/2006/810817.pdf.
[vi] Georgia Highway Safety Statistics 2006, http://www.gahighwaysafety.org/statistics/youngdrivers.html
[vii] GA GOHS Older Driver Task Force, http://www.gahighwaysafety.org/olderdrivertaskforce/odtffacts.html
[viii] GA GOHS SHSP 2007, p.40