

E. J. Ourso College of Business

Center for Analytics and Research in Transportation Safety



Contents

Overview	2
Introduction	3
Cost Estimates	4
Highlights	5
Summary A - Trends	6
Summary B – Fatal Crashes	8
Summary C – Injury Crashes	9
Summary D – Where Crashes Occur	10
Summary E – When Crashes Occur	11
Summary F – Crash Types	12
Summary G – Drivers	13
Summary H – Vehicles	15
Summary I – State and Local	16
Summary J – Alcohol	17
Summary K – Seatbelt Use	19
Summary L – Pedestrians	20
Summary M – Youth	21
Summary N – Seniors	22
Annendix – Glossary	23

Overview

After over 16 years of use, the current crash report form no longer meets the needs of the transportation community.

The new electronic crash report in 2021/2022, named "Louisiana eCrash", was based on the latest Model Minimum Uniform Crash Criteria (MMUCC) guidelines and will generate the data necessary to improve highway safety in Louisiana. The new report is nearly 100% aligned with MMUCC 5 (https://www.nhtsa.gov/mmucc-0).

While updating the state's crash report form, stakeholders used this time to review and update existing calculations as needed. The updated definitions help stakeholders capture more accurate data and perform more meaningful data analysis.

The crash data from 2005 – 2021 was updated to adhere to the new crash report format and standards. CARTS converted all previous years' crash data to look and feel like the new Louisiana eCrash crash report. This allows users to compare older data to the new data. During this conversion process, the previous years' data did change.

This means if a user is looking at a hard copy of a previous year's crash data, the data may now be different due to this conversion process.

A few important notes are listed below:

<u>Drivers</u>

 The new data structure considers a driver of a bicycle to be a non-motorist and not a driver. This means the overall number of drivers decreased.

Predicted Alcohol

- A new model was created to predict alcohol drivers and alcohol related crashes.
 - There was an overall significant increase in the number of predicted alcohol crashes. However, this increase can be misleading. When evaluating crash severity, the model has a decrease for fatal injury, suspected serious injury, and suspected minor injury crashes. The major cause of the increase is from possible minor injury and no injury crashes.

Vehicles (Bicycle)

• The new data structure does not consider a bicycle to be a vehicle. This means the overall number of vehicles decreased.

Introduction

The 2022 LOUISIANA TRAFFIC RECORDS SUMMARY REPORT indicates the following occurrence rates for 2022:

- 852 fatal crashes
- 906 fatalities
- 42.4 thousand injury crashes
- 68.0 thousand injuries
- 105.3 thousand property-damage-only crashes

These crashes resulted in

- A cost of \$10.65 billion dollars to the citizens of Louisiana, an increase of 10.69% from 2021.
- A cost of \$3,439 for every licensed driver in Louisiana, an increase of 8.38% from 2021.

The main contributing factors for Louisiana crashes in 2022 were alcohol and a low-percentage use of safety belts. The traffic-record data show the relationship of each contributing factor to fatalities:

- 30.8% of traffic fatalities were alcohol related.
- 48.7% of all occupants who died in a crash did not use a safety belt in cases where safety belt use is known.

The alcohol-related fatal crashes and fatalities data are estimated using a data mining algorithm developed at LSU. These results may deviate from results reported by FARS due to differences in the availability of data and model used to estimate the missing alcohol values.

Traffic reports received prior to Tuesday, September 5, 2023 form the basis of this report. Due to missing information and record errors, the table values may differ from the true values. Tables affected by these concerns contain relating comments.

The report was prepared by Helmut Schneider, Ph.D., Department of Information Systems and Decision Sciences, Louisiana State University, Baton Rouge, LA 70803, Ph. (225) 578-2516. The report is also available on the Internet site: http://datareports.lsu.edu.

Cost Estimates

Cost estimates are based on a study conducted by NHTSA in 2000 "The Economic Impact of Motor Vehicle Crashes" (DOT HS 809446). The following table shows cost elements considered. This table serves as the basis for the cost estimates used for Louisiana crashes. The Louisiana crash report has three (suspected serious injury, suspected minor injury, possible injury) instead of 5 injury categories. Therefore, the cost for injuries used for Louisiana data are the average of two of the injury categories used in the study. Furthermore, the cost elements for the injury levels suspected serious injury, suspected minor injury, and possible injury were weighted by the frequency of occurrence in Louisiana to obtain a cost figure for injury. Finally, the costs were adjusted by the CPI to obtain costs for 2022. These costs are shown in the table below.

	AVERAGE COST	INCLUDING LOSS OF
	PER PERSON	QUALITY OF LIFE
FATAL	\$1,851,858	\$12,255,637
INJURY	\$70,998	\$331,076
PDO	\$8,142	\$8,142

Based on these costs, the average cost of the 2022 crashes for the State of Louisiana was \$10.65 billion and increased to \$37.72 billion if loss of quality of life is included. Various tables in the report will use the average cost per person rather than the cost, which includes loss of quality of life.

Highlights

OVERVIEW OF FATAL AND INJURY CRASHES

In 2022 there were:

- 852 fatal crashes which decreased by 3.84% from 2021.
- 906 persons killed which decreased by 6.69% from 2021.
- 42,351 injury crashes which decreased by 9.26% from 2021.
- 68,008 persons injured which decreased by 10.34% from 2021.
- 105,284 property-damage-only crashes which decreased by 8.05% from 2021.

Of the 906 fatalities:

- 183 were killed as pedestrians which decreased by 1.08% from 2021
- 545 were killed as drivers of vehicles which decreased by 8.25% from 2021
- 88 motorcycle fatalities in 2022 which increased by 2.33% from 2021
- 44 persons were killed on bicycles which increased by 25.71% from 2021
- Louisiana's 2022 mileage fatality rate was 1.60 deaths per 100 million miles traveled which decreased by 08.75% from 2021.
- Louisiana's 2022 mileage fatality rate was 19.74 deaths per 100,000 population which decreased by 6.00% from 2021.
- Louisiana's 2022 mileage fatality rate was 29.96 deaths per 100,000 licensed drivers which decreased by 4.47% from 2021.

MOTORCYCLES

- Motorcycle fatalities increased by 2.33% from 2021
- Motorcycle injuries increased by 6.02% from 2021
- There were 5.32 deaths of motorcycle drivers per 100 motorcycles in crashes for 2022 as compared to 5.47 in 2021.
- Helmet use in motorcycle crashes was 86.34% in 2022.

INTERSTATES

- Interstate fatal crashes decreased by 18.24% from 2021
- Interstates account for 14.20% of the fatal crashes and 14.57% of the fatalities in 2022

ALCOHOL

- In 2022, 253 (29.69%) fatal crashes were estimated to be alcohol related.
- It is estimated that 6.57% of the 42,351 injury crashes involved alcohol.
- Of the 105,284 property-damage-only crashes, an estimated 5.68% involved alcohol.

OCCUPANT PROTECTION

Where safety belt usage was known:

- 45.97% of the drivers killed in motor vehicles were not wearing a safety belt.
- 59.09% of passengers ages 6 and older killed in motor vehicles were not wearing a seat belt.
- 83.33% of the children killed, ages 5 and under, were not properly restrained in a child seat.
- There were 1,296 drivers/occupants using helmets in 1,579 motorcycles involved in crashes (fatal, injury, and PDO crashes).

PEDESTRIANS

Pedestrians accounted for 20.20% of all traffic fatalities, compared to 19.05% in 2021.

Summary A - Trends

Section A deals with trends indicated by the 2022 crash data. Charts based on tables have corresponding table names with an additional designation letter. Vehicle miles traveled, population, and licensed drivers represent the methods for normalization of the actual number of crashes, injuries and fatalities. All normalization methods present shortcomings. At this time, the number of licensed drivers provides the most reliable normalization of crash data in Louisiana.

CHANGES FROM 2021 TO 2022

- In 2022 there were 906 persons killed which decreased by 6.69% from 2021.
- In 2022 there were 852 fatal crashes which decreased by 3.84% from 2021.
- In 2022 there were 1,321 vehicles involved in fatal crashes which decreased by 10.20% from 2021.
- In 2022 there were 545 drivers killed in fatal crashes which decreased by 8.25% from 2021.
- In 2022 there were 68,008 persons injured which decreased by 10.34% from 2021.
- In 2022 there were 42,351 injury crashes which decreased by 9.26% from 2021.

Louisiana fatality rates for 2022 were:

- 1.60 deaths per 100 million miles traveled which decreased by 8.75% from 2021.
- 19.74 deaths per 100,000 population which decreased by 6.00% from 2021.
- 29.96 deaths per 100,000 licensed drivers which decreased by 4.47% from 2021.

Injury rates in Louisiana for 2022 were:

- 120.35 injuries per 100 million miles traveled which decreased by 12.32% from 2021.
- 1,481.66 injuries per 100,000 population which decreased by 9.68% from 2021.
- 2,196.25 injuries per 100,000 licensed drivers which decreased by 12.22% from 2021.

PEDESTRIANS

- The number of pedestrians killed in 2022 was 183, which decreased by 01.08% from 2021.
- The number of pedestrians injured in 2022 was 1,225, which increased by 06.99% from 2021.

BICYCLES AND MOTORCYCLES

- In 2022, 44 persons were killed on bicycles which increased by 25.71% from 2021.
- There were 88 motorcycle fatalities in 2022 which increased by 2.33% from 2021.
- Known helmets use versus not used on all motorcycles in crashes was 86.34% in 2022 as compared to 81.89% in 2021
- There were 1,216 injuries in motorcycle crashes in 2022 which increased by 6.02% from 2021.

OCCUPANT PROTECTION

- 45.97% of drivers killed were reported not wearing a safety belt.
- 48.43% of all occupants (6 years and older) killed were not wearing a safety belt.

VEHICLE TYPE

- In Louisiana, FMCSA reportable vehicles were involved in 8.33% of all fatal crashes in 2022, compared to 8.57% in 2021.
- 39.44% of persons killed in motor vehicles in 2022 were occupants (drivers or passengers) of passenger cars, compared to 39.28% in 2021.
- 41.21% of occupants killed (drivers or passengers) of vehicles were in light trucks, vans, or SUVs in 2022, compared to 44.34% in 2021.
- 2.51% of occupants killed were in FMCSA reportable vehicles in 2022, compared to 2.40% in 2021.

INTERSTATES

- The interstate fatal crashes decreased by 18.24% from 2021 to 2022.
- The interstate fatalities decreased by 23.70% from 2021 to 2022.
- Interstates accounted for 14.20% of the fatal crashes for 2022.
- The number of fatalities per 100 million miles traveled was 0.92 on interstates in 2022 compared to 1.60 for Louisiana as a whole.

ALCOHOL

- In 2022, 253 fatal crashes (29.69%) were estimated to be alcohol related in which decreased by 11.85% from 2021
- In 2022, 2,782 injury crashes (06.57%) were estimated to be alcohol related in which decreased by 14.19% from 2021.
- In 2022, 5,985 property damage only (PDO) crashes (05.68%) were estimated to be alcohol related in which decreased by 34.05% from 2021.

Summary B – Fatal Crashes

Section B provides an overview of traffic fatalities in 2022. The charts show fatal crashes and traffic fatalities by parish, by month, by day of week, and by the time of the day. This section also presents fatalities by gender and role; i.e., driver, passenger or pedestrian.

- In 2022 there were 852 fatal crashes.
- In 2022 there were 906 persons killed.
- The likelihood of fatal crashes increases on weekends (Friday to Sunday) compared to the rest of the week.
- While Friday to Sunday accounts for about 42.9% of the time in a week, Friday to Sunday accounted for 47.77% of the fatal crashes in 2022.
- Fatal crashes are not equally distributed throughout the day. More fatal crashes occur during the late evening and early morning hours.
- In 2022, about 60.15% all traffic fatalities were drivers; about 14.57% were passengers; 04.86% were bicyclists and about 20.31% were pedestrians.
- In 2022, 72.79% all traffic fatalities were male and 27.21% were female.

Summary C – Injury Crashes

Section C provides an overview of traffic injuries in 2022. The charts also show crashes involving injuries and traffic injuries by Parish, by month, by day of the week, and by the time of day. In addition, Section C provides information regarding traffic injuries by gender and role; i.e., driver, passenger or pedestrian. Note that injuries in crashes also include injuries in fatal crashes.

- In 2022, of the 68,008 of the people injured, 46,814 were drivers.
- About 68.84% all traffic injuries were drivers; about 28.44% were passengers; about 0.82% were bicyclists and about 1.85% were pedestrians.
- Injury crashes are not equally distributed throughout the day. Less injury crashes occur during the late evening and early morning hours.
- Males and females made up 47.50% and 52.50% of injured drivers, respectively. The remaining percentage is drivers with unknown gender.

Summary D – Where Crashes Occur

Section D deals with the location where the crashes occur categorized by parish, city, rural and urban. We present the crashes by highway type and report the number of crashes on interstates. Grouping of parish data is by the size of the parish based on the number of licensed drivers. This section provides extensive information about fatalities and injuries and indicates whether they were alcohol-related or speed-related for each city that has a city code. The rural grouping for each parish includes areas per parish not having a city code. This "rural" grouping becomes less meaningful as suburbs continue to grow without city incorporation.

Summary E – When Crashes Occur

Crashes do not occur uniformly over time. This section deals with the analysis of the traffic crashes with respect to the month of the year, the day of the week, and the time of the day.

MONTH OF THE YEAR

• When interpreting the number of crashes by month, we have to keep in mind that the number of crashes depends not only on the number of days per month but also on the number of weekends in a month. An average number of fatal crashes may be estimated based on the number of days and weekends in a month.

DAY OF WEEK

- In 2022 injury crashes are lower on weekends; fatal crashes are higher on weekends.
- In 2022, about 47.77% of all fatal crashes occurred on the three days of weekends: Friday to Sunday.

TIME OF DAY

- Injury crashes are highest during the late afternoon rush hour traffic.
- Fatal crashes occur more frequently in the evening into the early morning hours.
- Fatal crashes occur least frequently around late morning.
- Evening and before midnight hours have a higher percentage of fatalities.
- Fatal crashes tend to occur more frequently on the weekends in the evening and early morning hours.
- Fatal crashes are not a fixed percentage of all crashes. Thus, reducing the total number of crashes does not necessarily reduce the number of fatalities.

Summary F – Crash Types

Roadway and weather factors may affect the number and severity of crashes. This section analyzes the type of crashes with respect to weather conditions, road conditions, and the type of collision.

ROAD CONDITIONS

- 90.69% of the injury crashes had no reported roadway environmental conditions in 2022.
- 88.97% of the fatal crashes had no reported roadway environmental conditions in 2022.
- In 0.66% of the injury crashes, a construction or repair was reported.
- In 0.59% of the fatal crashes, a construction or repair was reported.

Summary G – Drivers

Three main elements affecting the number of crashes per year are driver, roadway, and vehicle type. Section G presents driver information and data and Sections F and H present roadway conditions and vehicle statistics respectively. No matter what the roadway condition, weather condition, or vehicle condition, the driver can greatly influence traffic safety by driving not only without impairment at the appropriate speed but also defensively. This means that we understand that other drivers will make errors and that we adjust our driving behavior appropriately.

The drivers may be divided into three different groups: youths (15-24), middle-aged drivers (25-64), and seniors (65 and above). The young drivers and the senior drivers stand out among all drivers with respect to crash rates. Young drivers represent the least experienced drivers and show an inclination for audacious driving behaviors. Due to the application of different laws and observed driving behaviors across the age range of 15- 24, the youth group is subdivided into three age categories: 15-17, 18-20, and 21-24. The "beginners" age group, 15-17, has a high injury crash rate with few alcohol-related crashes. The age group 18-20 consistently has one of the highest fatal crash rates and one of the highest alcohol-related crash rates over the years.

We further divide the middle-aged drivers, 25-64, into 10-year age groups. This allows for a comparison to national statistics. The age group 25-64 represents a special concern due to high alcohol-related crash rates.

Senior drivers (65 and above) experience driving difficulties related to deteriorating physical abilities and also are more likely to die in a crash than younger drivers.

This section presents the number of drivers involved in fatal and injury crashes by age and gender as well as the number of drivers killed or injured in crashes by age and gender. due to missing information, such as gender or age of drivers, the tables may differ in the number of drivers. Note the difference between "fatal crash rate" and "fatality rate" of drivers. We base the fatal crash rate on all drivers in fatal crashes and the fatality rate only on the drivers killed.

AGE OF DRIVER

- In 2022 there were 1,271 drivers in fatal crashes, 545 of whom were killed in the crash in 2022.
- The age group 18-20 had 4.55% of licensed drivers, but this age group made up 6.29% of drivers involved in fatal crashes.
- For comparison, the age group 35-44 had 16.60% of licensed drivers, but this age group made up 17.55% of drivers involved in fatal crashes.

DRIVER FATALITIES

- In 2022, 545 drivers died in fatal crashes.
- The fatality rate of drivers was 17.60 fatalities per 100,000 licensed drivers.
- In general, the fatality rates of drivers decline with age, but increased considerably for seniors.
- The age group 18-20 had 4.55% of licensed drivers, but this age group made up 6.79% of all driver fatalities.

DRIVER GENDER IN FATAL CRASHES

- In 2022 the fatal crash rate of male drivers in the 18-20-year-old age group was higher than the fatal crash rate of female drivers of the same age group, i.e., 74 compared to 40.
- In 2022, on the average, 20 out of 100,000 licensed female drivers were involved in fatal crashes in 2022.
- In 2022, on the average, 59 out of 100,000 licensed male drivers were involved in fatal crashes in 2022.

AGE AND GENDER AMONG DRIVER FATALITIES

- Of the 545 driver fatalities in 2022, 407 were male and 137 were female.
- The fatality rate of male drivers is significantly higher than the fatality rate of female drivers. For instance, in 2022 the fatality rate of male drivers in the 18-20-year-old age group was 36 versus 17.

• While 74.68% of all driver fatalities were male in 2022, 47.48% of all licensed drivers were male.

VIOLATIONS

• 62.55% of all drivers involved in fatal crashes had a violation.

Summary H – Vehicles

This section describes the vehicle type and the roadway type where crashes occur. The number of vehicles involved in crashes forms the basis of analysis. A crash may involve one or more vehicles. Note that the large truck involvement in crashes mentioned in this section includes all single unit trucks and trucks with trailers as indicated on the crash report. This number is larger than the number of truck crashes reported on the Uniform Truck/Bus Crash Form (UTB) (Now known as Commercial Motor Vehicle or CMV). The Federal government receives a report of the latter number of crashes.

Rural areas tend to have a higher percentage of vehicles involved in fatal crashes, while urban areas have a higher percentage of vehicles involved in injury and property damage crashes.

VEHICLES IN CRASHES

• In 2022, there were 1,321 vehicles in fatal crashes, 81,775 vehicles in injury crashes and 200,337 vehicles in property-damage-only crashes. Thus, on average about 9.15% of all licensed drivers were in a crash in 2022.

TYPE OF CAR

- In 2022, 43.38% of the vehicles involved in injury crashes were passenger cars, while 30.96% vehicles involved in fatal crashes were passenger cars.
- In 2022, 19.80% of the vehicles involved in injury crashes were pick-up trucks, while 24.07% vehicles involved in fatal crashes were pick-up trucks.
- 02.77% of the vehicles involved in injury crashes were an FMCSA Reportable Vehicle, while 8.33% of the vehicles involved in fatal crashes were an FMCSA Reportable Vehicle.
- However, based on the percent of crashes rather than vehicles, 12.09% of fatal crashes involved an FMCSA Reportable Vehicle in 2022.

INTERSTATES

- About 16.63% of all passenger cars involved in fatal crashes were in crashes on interstates in 2022.
- About 40.00% of FMCSA Reportable vehicles in fatal crashes occurred on interstates in 2022.

OTHER VEHICLE TYPES

- There were 705 bicyclists involved in crashes with 44 fatalities.
- 1 child/children under the age of 12 was/were killed on bicycle(s) in 2022.
- 1,666 motorcyclists were involved in crashes in 2022 and 88 of the occupants of motorcycles were killed.
- In 2022 there were 29 injuries and 4 deaths reported involving a train.

Summary I – State and Local

Section I provides crash information by state and local routes. In 2022 state owned interstates/highways had

- 77.51% of the vehicle miles traveled, compared to 77.41% the previous year.
- 61.58% of all crashes, compared to 63.57% the previous year.
- 75.59% of all fatal crashes, compared to 80.14% the previous year.
- 64.10% of all injury crashes, compared to 66.50% the previous year.

Summary J – Alcohol

In Louisiana, driving under the influence of alcohol remains a top safety issue. Of particular concern is the involvement of drivers under the age of 21. Until 1995, the law did not address the illegal sale of alcohol to persons under age 21, but only illegal purchase and possession of alcohol by persons under 21 years of age. In 1995, modifications of the law made it illegal to sell alcohol under the age of 21. This 1995 modification also made it illegal to purchase and possess alcohol for persons less than 21 years of age. Although challenged, courts upheld the law. In 1997, legislation was passed making it illegal for persons below 21 years of age to drive with a BAC of 0.02 or above (zero tolerance level). In 2004, a challenge of the 1997 legislation claimed that it capriciously discriminates against the youth (18-20-year-olds). The Louisiana Supreme Court ruled in May 2004 that the zero-tolerance law is constitutional, thus upholding the 0.02 BAC law.

The analysis of fatal alcohol-related crashes in this section is based on an estimate obtained via a classification model developed at LSU. The model was tested over the past few years and shows very reliable results with a standard error less than 1.0%. The reported BAC results in crash report may be either based on a breath analyzer test or on a blood-alcohol test. The crash report does not distinguish between the two types of tests. However, in many cases, the BAC test results are still pending. For this reason, the classification model is applied to generate missing BAC results to estimate the percentage of alcohol-involved fatalities.

Drunk drivers are at least 13 times more likely to cause a fatal crash than sober drivers, according to a study by Steven Levitt, Professor of Economics at the University of Chicago and Jack Porter, Professor of Economics at Harvard University.

- 279 traffic fatalities were estimated to be alcohol related in 2022.
- 191 (68.46%) of the 279 fatalities in alcohol-related crashes were drivers who were predicted to have alcohol.
- Alcohol is more often involved in rural area crashes than in urban area crashes. In 2022, alcohol was involved in 66.80% of rural and in 33.20% of urban fatal crashes in Louisiana. Note that the alcohol-involved fatal crashes are estimated.
- Age is an important factor in alcohol-related crashes. There are several ways of presenting alcohol-related
 crashes by age. Note that the alcohol-related fatal crashes are estimated while the alcohol-related injury crashes
 include cases of known BAC levels and cases of pending BAC levels provided by the investigating officer
 indicating "alcohol involvement" on the crash report.
 - 1. The first method is to compare crash rates (crashes per 100,000 licensed drivers) in an age group. Even though it is illegal for youths under 21 to consume alcohol, the alcohol-related crash rate for 18 to 20-year-old drivers was 7 versus 9 for all age groups. Similarly, drivers killed in alcohol-related crashes (6 versus 6 per 100,000 drivers).
 - 2. A second method of understanding how alcohol-related crashes are affected by age is comparing what percentage of the total of alcohol-related involvement each group has. While 4.55% of the licensed drivers in 2022 were between 18 and 20 years old, 3.81% of the drivers in fatal crashes using alcohol were of age 18-20 and 4.19% of the drivers killed using alcohol were of ages 18-20.
 - 3. A third method is the percentage of alcohol use of drivers in each age group. This percentage is based on the number of crashes each group is involved in. For instance, in the age group 18-20, 12.50% of drivers in fatal crashes of this age group used alcohol, compared to 21.01% for all age groups.

PEDESTRIANS AND ALCOHOL

- In 2022, 36 (19.67%) of the 183 pedestrian fatalities had a positive BAC, i.e., 0.01 or above.
- However, 0 (0.00%) of the 183 pedestrian fatality BAC test results were still pending at the time this report was prepared.
- Also, 47.54% of pedestrians were not tested for alcohol in 2022.

WHEN ALCOHOL-RELATED CRASHES OCCUR

- Alcohol-related crashes occur more frequently on weekends than during the week.
- The evening hours and early morning hours on weekends had the most frequency of alcohol-involved crashes.
- Friday night and Saturday night involved the highest frequency of alcohol-related fatal and injury crashes.

Summary K – Seatbelt Use

This section deals with the use of safety belts and other safety devices. Louisiana safety belt law requires drivers and (except as provided by R.S. 32:295) all passengers in a passenger car, van, sports utility vehicle, or truck having a gross weight of ten thousand pounds or less, commonly referred to as a pickup truck to have a safety belt properly fastened about his/her body at all times when the vehicle is in forward motion. NHTSA research "has found that lap/shoulder safety belts, when used correctly, reduce the risk of fatal injuries to front-seat car occupants by 45% and the risk of moderate-to-critical injuries by 50%." For light truck occupants, safety belts reduce the risk of fatal injuries by 60% and of moderate-to-critical injuries by 65%. Research on the effectiveness of child safety seats finds these seats to reduce fatal injuries by 69% for infants (less than 1 year old) and 47% for toddlers between 1 and 4 years old (DOTD HS 808 768). Occupants in this section are all drivers and passengers.

Not wearing a safety belt was one of the leading causes of being killed in a crash. Note that only drivers in vehicles with manufacturer-installed safety belts are included in the analysis. This excludes bicycles, motorcycles and off-the-road vehicles.

- In 2022, 316 (57.98%) of the 545 drivers killed in motor vehicles were known to be wearing a safety belt.
- 229 (42.02%) of the 545 drivers killed in motor vehicles were known not to be wearing a safety belt.
- 98 (42.79%) of the 229 drivers killed did not wear a safety belt when the air bag deployed. Thus an airbag alone does not protect against being killed as much as wearing a safety belt.
- In 2022, 55.83% of all drivers and passengers killed were known to have worn a safety belt.
- 2 (28.57%) of the 7 children killed, ages 5 and under, were known to be properly restrained in a child seat.
- 60 (48.00%) of the 125 passengers ages 6 and older were known to be wearing a seat belt
- 8 (9.52%) of the 84 motorcycle drivers killed were not wearing helmets in 2022.
- 37 (16.09%) of the 230 severely injured motorcycle drivers killed did not wear helmets in 2022.
- In fatalities where seatbelt usage was known 166 (40.79%) of the 407 male driver fatalities were known to not have worn a seat belt.
- In fatalities where seatbelt usage was known 63 (45.99%) of the 137 female driver fatalities were known to not have worn a seat belt.

Summary L – Pedestrians

Pedestrians make up 183 (20.20%) of the 906 fatalities in 2022.

- 11 children between the ages of 5 and below were killed as pedestrians.
- 0 children between the ages of 6 and 14 were killed as pedestrians.
- Males made up 72.68% of the pedestrians killed.

Summary M – Youth

Of particular concern is the involvement of drivers in traffic crashes under the age of 21. These young drivers stand out among all drivers with respect to crash rates. They are the least experienced drivers and prone to audacious driving behavior. They have a much higher percentage of fatalities and injuries than expected by the makeup of the population and the licensed drivers. Young people are more affected by alcohol than older people. In 1997, more 20-year-olds died in lower BAC (between 0.01 and 0.09) alcohol-related crashes than any other ages. For this reason, all states and the District of Columbia have set a BAC limit of 0.01 or lower for drivers under the age of 21 (Zero Tolerance Laws). Until 1995, the law did not address the illegal sale of alcohol to persons under age 21, but only illegal purchase and possession of alcohol by persons under 21 years of age. In 1995, modifications of the law made it illegal to sell alcohol under the age of 21. This 1995 modification also made it illegal to purchase and possess alcohol for persons less than 21 years of age. Although challenged, courts upheld the law. In 1997, legislation was passed making it illegal for persons below 21 years of age to drive with a BAC of 0.02 or above (zero tolerance level). In 2004, a challenge of the 1997 legislation claimed that it capriciously discriminates against the youth (18-20-year-olds). The Louisiana Supreme Court ruled in May 2004 that the zero-tolerance law is constitutional, thus upholding the 0.02 BAC law. The following are highlights of the 2022 crash data report.

DRIVERS AGES 15-17

- Made up 2.77% of licensed drivers, 1.97% of drivers involved in fatal crashes, and 1.28% of drivers killed.
- Were 3.01% of drivers involved in injury crashes.

DRIVERS AGES 18-20

- Made up 4.55% of licensed drivers, 6.29% of drivers involved in fatal crashes, and 6.79% of drivers killed.
- Represented 7.33% of drivers involved in injury crashes.

DRIVERS AGES 21-24

- Made up 6.43% of licensed drivers, 9.21% of drivers involved in fatal crashes, and 7.34% of drivers killed.
- Were 9.82% of drivers involved in injury crashes.

YOUTHS AND GENDER

- Female drivers ages 15-24 make up 6.97% of licensed drivers and make up 5.66% of drivers involved in fatal crashes.
- Male drivers ages 15-24 make up 6.78% of licensed drivers but make up 11.80% of drivers involved in fatal crashes.
- Female drivers ages 18-20 make up 31.20% of licensed drivers aged 15-20 and make up 26.67% of drivers involved in fatal crashes from this age group.
- Male drivers ages 18-20 make up 30.96% of licensed drivers aged 15-20 and make up 49.52% of drivers involved in fatal crashes from this age group.
- Male youth drivers were more likely to be involved in alcohol-related fatal crashes than female drivers.
- Female drivers ages 18-20 make up 16.61% of licensed drivers of ages 15-24 and make up 5.45% of drivers involved in alcohol-related fatal crashes from this age group.
- Male drivers ages 18-20 make up 16.48% of licensed drivers of ages 15-24 and make up 20.00% of drivers involved in alcohol-related fatal crashes from this age group.
- In the age group 15-24 male drivers made up 72.73% of drivers involved in alcohol-related fatal crashes.

Summary N – Seniors

Drivers may be divided into three different groups: youths, middle-aged drivers, and seniors (65 and above). The senior drivers stand out among all drivers with respect to crash rates. Senior drivers experience driving difficulties related to deteriorating physical abilities and are more likely to die in a crash than younger drivers.

- Although the injury crash rate declines with age, the fatal crash rate of seniors is the highest of all drivers.
- 14 senior driver fatalities were recorded where the senior was under the influence of alcohol.

Appendix – Glossary

These definitions are used in the traffic safety community and have been compiled from various NHTSA, LADOTD, and government publications, including ANSI D16.1996 and AAMVA ANSI D20-2003 technical manuals. They provide explanation to some of the terminology used throughout the book and CRASH reports.

ALCOHOL-INVOLVED CRASH (AIC):

Any CRASH where a DRIVER or PEDESTRIAN had been drinking as indicated by the crash report.

ALCOHOL-RELATED:

NHTSA defines a crash as alcohol-related if either a driver or a non-motorist (usually a pedestrian) had a measurable or estimated blood alcohol concentration (BAC) of 0.01 grams per deciliter (g/dl) or above. Some states in the State Data System also report a crash as alcohol-related if the Police Accident Report (PAR) indicates evidence of alcohol being present, even though the crash participant may not have been tested for alcohol.

BAC:

Blood Alcohol Concentration. BAC is measured as a percentage by weight of alcohol in the blood (grams/deciliter). A positive BAC level (0.01 g/dl and higher) indicates that alcohol was consumed by the person tested.

BUS:

Large motor vehicles generally used to carry more than 10 passengers, including school buses, inter-city buses, and transit buses.

CATACLYSM:

An avalanche, cloudburst, cyclone, earthquake, flood, hurricane, landslide, lightning, tidal wave, tornado, torrential rain, or volcanic eruption.

COLLISION TYPE:

The category which best describes the general type of collision which was the first event.

CRASH:

An event that produces injury and/or property damage, involves a motor vehicle in transport, and occurs on a trafficway or while the vehicle is still in motion after running off the trafficway.

CRASH (TRAFFIC):

An unintended event that causes a death, injury or damage and involves a MOTOR VEHICLE on a TRAFFICWAY. (This book includes only traffic crashes which have resulted in a DEATH or INJURY to one or more persons. CRASHES which have caused only vehicle or property damage are not included.)

CRASH SEVERITY:

- Fatal Crash: A police-reported crash involving a motor vehicle in transport on a trafficway where at least one person dies.
- Injury Crash: A police-reported crash involving a motor vehicle in transport on a trafficway where no one died but at least one person was reported to have either an

incapacitating injury, a visible but not incapacitating injury, or a possible injury with no visible evidence.

 Property-Damage-Only (PDO) Crash: A police-reported crash involving a motor vehicle in transport on a trafficway where no one involved in the crash was killed or injured, but enough damage occurred to one or more vehicles to meet the state's minimum inclusion criteria.

DAY:

Time period from 0600 (6:00 A.M.) to 1759 (5:59 P.M.)

DEATHS (FATALITIES):

Those persons who have died within 30 days of a CRASH as a result of INJURIES sustained in that CRASH.

DRINKING IN A MOTOR VEHICLE--Sec. 13:1018.1 (EBRP):

It is unlawful...

for any person to drink, consume, or be in possession of an alcoholic beverage while operating, or while riding as a passenger in, any private motor vehicle when such vehicle is upon a public road;

for any operator or passenger of any motor vehicle to drink, consume, or be in possession of any bottle, container or receptacle containing alcoholic beverages which has been opened or the seal of a licensed manufacturer has been broken, or the contents of which have been exposed to the air, except when such bottle, receptacle, or container shall be kept in the trunk of the motor vehicle, or kept in some other area of the vehicle not normally occupied by the driver or passengers in the event that the motor vehicle is not equipped with a trunk. On a first conviction, punishable by fines up to \$125 and imprisonment for 10 days to 6 months.

DRIVER:

A person who is in actual physical control of a VEHICLE or who was in control until control was lost. (A PEDALCYCLIST who is in control is considered a DRIVER.)

DRIVER AGE CATEGORIES:

Youths: 15-20 Young Adults: 21-24 Adults: 25-64

Seniors: 65 and above

DRIVER CONDITION:

The category which best describes the condition of a DRIVER at the time of the CRASH.

DWI:

Driving While Intoxicated (See OPERATING A VEHICLE WHILE INTOXICATED)

ELEVATED INTERSTATE CRASH:

Any traffic accident occurring on an interstate which is not level with the adjacent ground.

FARS:

Fatal Analysis Reporting System, a data system created by the United States Department of Transportion (DOT) and the National Highway Traffic Safety Administration (NHTSA) in 1975 to assist the traffic safety community in identifying traffic safety problems and evaluating both motor vehicle safety standards and highway safety initiatives.

FATAL CRASHES:

Those crashes involving one or more DEATHS.

FATAL AND INJURY (F&I) CRASH:

The CRASHES where there was an INJURY or a DEATH.

GROSS VEHICLE WEIGHT RATING (GVWR):

A gross vehicle weight rating is (1) a value specified by the manufacturer for a single-unit TRUCK, truck tractor or trailer, or (2) the sum of such values for the units which make up a TRUCK COMBINATION. In the absence of a gross vehicle weight rating, an estimate of the gross weight of a fully loaded unit may be substituted for such a rating.

FMCSA REPORTABLE:

The MCMIS Crash data includes crashes that are reported by states to the FMCSA through the SAFETYNET computer reporting system. The Crash File includes the National Governors' Association (NGA) recommended data elements collected on trucks and buses involved in crashes that meet the NGA recommended crash threshold. An NGA reportable crash must involve a truck (a vehicle designed, used, or maintained primarily for carrying property, with a gross vehicle weight rating or gross combination weight rating of more than 10,000 lbs.) or bus (a vehicle with seats for at least nine people, including the driver) or a vehicle carrying hazardous material. The crash must result in at least one fatality; one injury where the person injured is taken to a medical facility for immediate medical attention; or one vehicle having been towed from the scene as a result of disabling damage suffered in the crash. The Crash Profile Reports use the MCMIS Crash data as of March 2007.

IN TRANSPORT:

The term "IN TRANSPORT" denotes the state or condition of a transport vehicle which is in motion or within the portion of a transport way ordinarily used by similar transport vehicles. When applied to MOTOR VEHICLES, "in transport" means in motion or on a roadway. Inclusions:

- MOTOR VEHICLE in traffic on a highway
- Driverless MOTOR VEHICLE in motion
- Motionless MOTOR VEHICLE abandoned on a roadway
- Disabled MOTOR VEHICLE on a roadway
- And others in roadway lanes used for travel during rush hours and parking during off-peak periods, a parked MOTOR VEHICLE is in transport during periods when parking is forbidden.

INJURY:

Bodily harm to a person as a result of a CRASH. INJURIES do not include DEATHS.

INJURY SEVERITY:

The police-reported injury severity of a person involved in a crash:

- Killed (Fatal)
- Injured (Incapacitating injury, evident injury but not incapacitating, and possible injury with no visible evidence)
- No Injury

INTERSECTION:

An area that contains a crossing or connection of two or more roadways not classified as driveway access, either along a roadway within an intersection proper or within 50 feet of an intersection.

INTERSECTION CRASHES:

Those crashes that occur at or within 100 feet of an intersection.

KILLED:

A DEATH as a result of a CRASH.

LARGE TRUCK:

Trucks with over 10,000 pounds Gross Vehicle Weight Rating (GVWR), including single unit trucks and truck tractors.

LIGHT TRUCKS:

MOTOR VEHICLES such as pickups, vans, blazers, and panel trucks.

LICENSED DRIVER:

A person who is licensed by a state to operate a MOTOR VEHICLE on public roadways.

LIGHT TRUCK:

Trucks with 10,000 pounds Gross Vehicle Weight Rating (GVWR) or less, including pickups, vans, and sport utility vehicles (SUV).

LOCATION TYPES:

Where the CRASH occurred (business, residential, etc.)

MISSING OBSERVATIONS:

A traffic record where fields of the crash report were incomplete.

MOTOR VEHICLES:

Any motorized (mechanically or electrically powered) VEHICLE not operated on rails.

MOTORCYCLE:

A two- or three-wheeled motor vehicle designed to transport one or two people, including motor scooters, mini bikes, and mopeds.

NIGHT:

Time period from 1800 (6:00 P.M.) to 0559 (5:59 A.M.)

NON-INTERSECTION:

An area along the roadway (including the shoulder) that does not contain a crossing or connection of two or more roadways, and is greater than 50 feet from an intersection.

OCCUPANT:

A person who is in or on a VEHICLE including the driver.

OPERATING A VEHICLE WHILE INTOXICATED--R.S. 14:98 (LA):

The crime of operating a vehicle while intoxicated is the operating of any motor vehicle, aircraft, watercraft, vessel, or other means of conveyance when the operator is under the influence of alcoholic beverages or the operator's BAC is 0.08% or more. On the first offense, punishable by a fine of \$300 to \$1,000, and 10 days to 6 months imprisonment (exceptions are in place). If the offender has a blood alcohol concentration of 0.20% or more, the violation is punishable with fines of \$750 to \$1,000 without benefit of parole, probation, or suspension of sentence, and suspension of driver's license for 2 years.

OTHER OBJECT:

An object in the roadway that is not part of the roadway (such as rocks, fallen trees, debris)

OVERTURN\ROLLOVER:

Any crash where a vehicle rotates 90 degrees or more about any true longitudinal or lateral axis.

PAR:

Police Accident Report. A report completed by police officers at a motor vehicle traffic crash scene. It contains information describing characteristics of the crash, the vehicles, and people involved. The report also includes the results of the officer's investigation about the crash itself.

PASSENGER:

Any OCCUPANT of a VEHICLE other than its DRIVER.

PEDALCYCLE:

A non-motorized VEHICLE propelled by pedaling such as a bicycle, tricycle, unicycle, or pedal car.

PEDESTRIAN:

A person who is INJURED or killed in a CRASH and who was not in or on a VEHICLE.

PRETRIAL DIVERSION:

Includes all submits and refusals that did not lead to either a DWI conviction or an application of the 894 law.

PRIMARY CONTRIBUTING FACTOR:

The main cause of a CRASH.

PROPERTY-DAMAGE ONLY (PDO) CRASH:

A non-injury crash.

RATE:

A rate is computed by dividing a total count by population statistics such as VMT, number of licensed drivers, or population.

REFUSAL:

When a law enforcement officer places a person under arrest for operating a motor vehicle while intoxicated and the person refuses to submit to an approved chemical test for intoxication.

RURAL:

All areas that are unincorporated and incorporated areas with less than 2,500 population except for Jefferson Parish, which is considered all URBAN.

SUBMIT:

When a law enforcement officer places a person under arrest for operating a motor vehicle while intoxicated and the person submits to an approved chemical test for intoxication and such test results show blood alcohol content over the legal limits.

TRAFFIC WAY:

A land way open to the public as a matter of right or custom for moving persons or property from one place to another. This does not include land ways that are under construction or closed and that have been marked by signs or barriers.

TRANSPORT VEHICLE:

A TRANSPORT VEHICLE consists of one or more devices or animals and their load. Such devices or animals must include at least one of the following:

- A transport device, or a unit made up of connected transport devices, while idle or in use for moving persons or property from one place to another.
- An animal or team of animals while in use for moving persons or property other than the animal or team itself from one place to another.
- A movable device such as construction, farm, or industrial machinery outside the confines
 of a building and its premises while in use for moving persons, the device itself, or
 other property from one place to another.

If such a device or animal has a load, the load is part of that TRANSPORT VEHICLE. Loads include:

- Persons or property upon, or set in motion by, the device or animal.
- Persons boarding or alighting from the device or animal.
- Persons or property attached to and in position to move with the device.

TRUCK COMBINATION:

A motor vehicle consisting of a TRUCK TRACTOR that has a trailer or semi-trailer attached.

TRUCK TRACTOR:

A motor vehicle consisting primarily of a single motorized device designed for drawing trailers or semi-trailers, but not for carrying other property on or in the device. When connected to a trailer or semi-trailer, such a device is considered a TRUCK COMBINATION.

URBAN:

Any incorporated area with more than 2,500 population and all of Jefferson Parish.

VEHICLE:

A device for carrying or transporting persons or things, i.e., cars, trucks, farm equipment, buses, motorcycles, pedalcycles, trains, and recreational vehicles.

VIOLATIONS:

The category that best describes the DRIVER'S infringement of MOTOR VEHICLE traffic laws.

VMT:

Vehicle Miles Traveled is an estimate of the miles traveled by all motor vehicles traveling on Louisiana roads. VMT is obtained by combining two estimates of (1) VMT of interstates and state roads and (2) VMT of local roads. The estimate of interstates and state roads are obtained from daily vehicle miles travel estimates. The daily vehicle miles traveled is obtained by dividing the state roads and interstates in control sections. Counters on these control sections count daily travel. These counts are then multiplied by the miles of the control sections.

Note: All population statistics show an increase. However, the VMT exhibit much more variation over time than expected from the variation in licensed drivers and population. Part of the variation may be due to estimation.

WEEKDAY:

Time period from 0600 (6:00 A.M.) Monday to 1759 (5:59 P.M.) Friday

WEEKEND:

Time period from 1800 (6:00 P.M.) Friday to 0559 (5:59 A.M.)



Contact Information

Center for Analytics and Research in Transportation Safety

E. J. Ourso College of Business · Louisiana State University 179 South Quad Drive · Baton Rouge, LA 70803

Phone: 225-578-0366 Fax: 225-578-0240 Web: carts.lsu.edu



E. J. Ourso College of Business