



**LOUISIANA SAFETY RESTRAINT
(SAFETY BELT) USE
OBSERVATION SURVEY 2009 RESULTS**

-FINAL REPORT-

CONTRACT NO. K4-2009-03-00-00

STATE OF LOUISIANA
Bobby Jindal, Governor

LOUISIANA HIGHWAY SAFETY COMMISSION
John A. LeBlanc, Executive Director

August 2009

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INTRODUCTION and BACKGROUND INFORMATION

The Louisiana Highway Safety Commission has sponsored statewide observational surveys to determine safety restraint usage among the driving public since 1986. The surveys are conducted to determine the level of compliance with the state's mandatory safety belt use law and to identify changes in safety restraint usage rates.

On July 7, 1985, the Louisiana legislature passed a mandatory, secondary offense, seat belt use law requiring front seat occupants of privately-owned automobiles to wear safety belts. The law became effective on July 1, 1986. During the period of July 1-31, 1986, only warning tickets were issued. Actual issuance of citations began on August 1, 1986. During the 1988 session of the Louisiana legislature, the mandatory use law was revised to cover each driver and each front seat occupant of a passenger car, truck or van having a gross weight of six thousand pounds or less. In 1995, a primary safety belt use law was enacted by the Louisiana legislature. Act 643 providing for the required use of safety belts received final approval on June 20, 1995, and became effective September 1, 1995. The Act provided for the issuance of warning tickets prior to October 31, 1995, and citations bringing penalties consisting of a fine and costs of court thereafter.

In November 1998, the Louisiana Third Circuit Court of Appeal ruled the state's seat belt law does not allow police to stop drivers only for a seat belt violation. In 1995, the Legislature intended to change the seat belt law to make not wearing a seat belt a "primary" offense, a violation for which a law enforcement officer can stop a driver. Amendment of the seat belt law from a secondary to a primary enforcement law started when the Louisiana House of Representatives removed the word "detained" from that part of the secondary offense law which said that no one could be "inspected, detained or searched" solely for violating the seat belt law. Later, the wording of the bill was amended in Louisiana Senate where the word "detained" was put back into the law. The court ruled that if a motorist could not be detained by a law enforcement officer, the violation of the law could not be considered a primary offense or one under which a motorist could be stopped. As a result of the court ruling, the 1995 law was still a secondary offense law. The Louisiana State Police issued notice to troopers telling them not to stop drivers for seat belt violations. The court's ruling was announced the same day as the kick off meeting for the fall 1998 "Buckle Up America" campaign was taking place in Baton Rouge.

On June 21, 1999, during the closing days of the legislative session, the Legislature, responding in part to a strong showing of support by the Louisiana State Police, passed a bill that allowed law enforcement officers to stop motorists for not wearing a seat belt. The latest primary enforcement law became effective August 15, 1999.

Earlier in the 1999 regular session of the Louisiana Legislature, the law requiring mandatory use of helmets for motorcycle operators and passengers was modified to allow persons age 18 and older who could provide proof of certain medical insurance coverage exempt for the helmet requirement. During the 2004 regular session, the legislature re-instated the mandatory motorcycle helmet law effective August 15, 2004.

Only drivers and front seat occupants of privately-owned automobiles were included in observation surveys prior to 1989. All drivers and front seat occupants of passenger cars, vans and light trucks were included in the surveys conducted from 1989 to 1991 and after 1995 (Waves 5-7 and 12-17). The surveys conducted from 1992 to 1995 (Waves 8-11) included only drivers and front seat occupants of privately-owned automobiles. Motorcycle operators and passengers were also observed for use of helmets during the surveys conducted since 1992.

Observations on the first eleven survey waves (through 1995) were collected in accordance with a probability sample prepared by WESTAT, the National Highway Traffic Safety Administration contractor. Observation locations for the twelfth wave (1996) through the nineteenth wave (2003) survey were selected by the Washington Consulting Group (WCG).

Observations starting with the twentieth wave were collected in accordance with a probability sample prepared by Dr. Helmut Schneider, Ourso Family Distinguished Professor of Information Systems and Chairman of Information Systems and Decision Sciences, Louisiana State University, Baton Rouge, Louisiana¹. The new design is compliant with existing NHTSA guidelines. The Schneider design provided for data to be collected at 418 road segments throughout the eight regions comprising the State of Louisiana to prepare estimates of statewide and regional safety belt use.

Two significant hurricanes, Katrina and Rita, did serious damage to Louisiana between the time data were collected on the twenty-first wave survey in 2005 and the twenty-second wave survey in 2006. Substantial displacements of people and organizations occurred as a result of damage associated with these two hurricane events. Hurricane Katrina and subsequent flooding due to levee failure cause extensive destruction across southeast Louisiana while Hurricane Rita wreaked havoc in the southwest portion of Louisiana.

Hurricane Gustav caused extensive devastation throughout south central Louisiana, especially in the Baton Rouge metropolitan area in early September 2008 after data had been collected for the twenty-fourth wave survey.

This twenty-fifth wave survey was conducted in June and July 2009. The data collection form developed for use in the 1989-1991 surveys which was revised for the 1996 survey and was subsequently revised in 2004 was used in this latest survey (Refer to Appendix A). Observations were made on drivers and front seat passengers of privately-owned vehicles to whom the state's belt use law applied. In prior surveys seat belt use was reported by three categories of vehicles: passenger cars, vans and light trucks. Starting with the seventeenth wave survey (2001), belt use was recorded by four categories of vehicles: passenger cars, vans, SUVs and pickup trucks. The passenger car and van categories remained unchanged from prior surveys. The former light truck category was split into the SUV and the pickup truck categories.

SURVEY RESULTS

Safety restraint observation data were collected at all 416 locations selected in the revised design (the Schneider design) (Table 1). The observation data were submitted to Dr. Schneider for calculation of seat belt use estimates.

**TABLE 1.
NUMBER OF OBSERVATION SITES BY REGION, 2009**

<u>REGION</u>	<u>SITES COMPLETED</u>
1	68
2	86
3	39
4	61
5	32
6	35
7	60
8	35
TOTAL STATE	416

A total of 73,785 drivers and front seat passengers were observed at the 416 locations (Table 2). The safety restraint use observations were categorized based on type vehicle: automobile, pick-up truck, SUV (sports utility vehicle) and vans.

**TABLE 2.
NUMBER OF OBSERVATIONS (UNWEIGHTED) MADE IN LOUISIANA, 2009
BY REGION AND VEHICLE TYPE.**

<u>REGION</u>	<u>TOTAL</u>				<u>TOTAL ALL</u>
	<u>AUTO</u>	<u>PICKUP</u>	<u>SUV</u>	<u>VAN</u>	
1	6,512	4,019	3,920	1,422	15,873
2	7,839	4,981	4,439	1,811	19,070
3	3,174	2,506	1,654	505	7,839
4	3,763	3,087	2,131	838	9,819
5	1,855	1,453	982	396	4,686
6	2,051	1,442	908	398	4,799
7	3,391	2,394	1,529	742	8,056
8	1,511	1,161	728	243	3,643
Louisiana	30,096	21,043	16,291	6,355	73,785

The 2009 overall estimate of safety restraint usage among the motoring population in Louisiana for all private vehicles is 74.5% (Table 3). Safety restraint usage ranges by region from 71.3% to 77.3%. Usage rates by vehicle type range from 76.9% among SUV occupants to 71.0% among pickup truck occupants. Restraint usage among automobile occupants is 75.0%.

Overall safety restraint use decreased by 1.0 percentage point from the 2008 survey.

The sample error for the estimates are shown in Table 4.

TABLE 3.
PERCENT OF SEAT BELT USAGE IN LOUISIANA, 2009
BY REGION AND VEHICLE TYPE (WEIGHTED DATA).

<u>REGION</u>	<u>AUTO</u>	<u>PICKUP</u>	<u>SUV</u>	<u>VAN</u>	<u>ALL</u>
1-New Orleans	74.2%	69.7%	75.3%	81.5%	73.7%
2-Baton Rouge	77.0%	69.5%	76.1%	78.7%	74.6%
3-Houma	74.9%	74.0%	78.4%	70.3%	76.0%
4-Lafayette	76.3%	72.8%	78.8%	76.5%	76.1%
5-Lake Charles	77.0%	73.9%	79.7%	86.5%	77.3%
6-Alexandria	76.7%	73.7%	79.1%	86.9%	76.9%
7-Shreveport	71.9%	69.7%	74.7%	71.7%	71.8%
8-Monroe	71.7%	68.3%	76.2%	57.7%	71.3%
Louisiana	75.0%	71.0%	76.9%	76.3%	74.5%

**TABLE 4.
STANDARD ERROR, LOUISIANA, 2009**

<u>REGION</u>	<u>AUTO</u>	<u>PICKUP</u>	<u>SUV</u>	<u>VAN</u>	<u>ALL</u>
1-New Orleans	0.6%	0.9%	0.8%	1.8%	0.5%
2-Baton Rouge	0.7%	0.6%	0.8%	1.2%	0.5%
3-Houma	0.8%	1.2%	3.0%	6.6%	0.8%
4-Lafayette	0.7%	0.8%	0.8%	4.9%	0.5%
5-Lake Charles	0.9%	0.8%	1.0%	2.0%	0.7%
6-Alexandria	0.7%	1.2%	1.2%	1.8%	0.7%
7-Shreveport	0.6%	0.7%	0.9%	2.5%	0.4%
8-Monroe	0.5%	0.8%	1.7%	6.1%	0.4%
Louisiana	0.3%	0.3%	0.4%	1.2%	0.2%

During the 1999 regular session, the Louisiana legislature modified the then existing mandatory motorcycle helmet law. Prior to the 1999 modification, which allowed persons age 18 and older who could provide proof of certain medical insurance coverage exempt for the helmet requirement, almost all motorcycle operators and passengers wore helmets (the 1999 rate, based on data collected prior to the effective date of the modification, was 96.7%). In the year 2000 following the modification, motorcycle helmet use dropped to 51.8%. In subsequent years the motorcycle helmet rate remained comparatively low (51.7% for 2001, 46.4% for 2002, 58.6% for 2003, and 57.7% for 2004).

During the 2004 regular session, the legislature re-instated the mandatory motorcycle helmet law effective August 15, 2004. The re-instatement of Louisiana's mandatory motorcycle helmet law had a pronounced impact on helmet usage. The motorcycle helmet usage estimate for Louisiana in 2008 was 99.8% for motorcycle drivers and passengers and 99.0% for 2009 (Table 5).

**TABLE 5.
MOTORCYCLE HELMET USAGE IN LOUISIANA, 2009.
(Unweighted data)**

<u>NUMBER WEARING HELMETS</u>	<u>NUMBER NOT WEARING HELMETS</u>	<u>PERCENT WEARING HELMETS</u>
388	4	99.0

OVERVIEW and CONCLUSIONS

In 1995, a primary-offense, mandatory safety belt use law was enacted by the Louisiana legislature. In November 1998, the Louisiana Third Circuit Court of Appeal ruled the state's seat belt law does not allow police to stop drivers only for a seat belt violation. On June 21, 1999, during the closing days of the legislative session, the Legislature, responding in part to a strong showing of support by the Louisiana State Police, passed a bill that allowed law enforcement officers to stop motorists for not wearing a seat belt. The latest primary enforcement law became effective August 15, 1999.

During the 1999 regular session of the Louisiana Legislature, the law requiring mandatory use of helmets for motorcycle operators and passengers was modified to allow persons age 18 and older who could provide proof of certain medical insurance coverage exempt for the helmet requirement.

Safety restraint usage in Louisiana among motorists jumped in the year following passage of the state's primary use law. The restraint use steadily increased in the years following that initial growth but at much reduced rates. By 2000 the belt use rate stood at 68.2%, an increase of 1.2 percentage points over the previous year. Belt use among automobile occupants in 2000 amounted to 70.1% which was 0.1 percentage points above the previous year.

Safety restraint usage in Louisiana dropped in 2001; the first recorded decrease since the passage of the mandatory use law in 1995. Belt use among automobile occupants in 2001 was 69.3%; a decrease of 0.8 percentage points from 2000. The overall usage rate for 2001 was 68.1%, a decrease of 0.1 percentage points from the previous year.

Mixed results were experienced during 2002. The overall seat belt use rate increased by 0.5 percentage points to 68.6%. The seat belt use rate among automobile occupants increased by 0.9 percentage points to 70.2%. Statewide, increases were recorded among automobile occupants and van occupants while decreases were recorded among pickup truck and SUV occupants. The five regions comprising south Louisiana showed increased seat belt use, but all three regions comprising north Louisiana showed decreased seat belt use.

It is important to note that Section 157 Discretionary Program funding for an enhanced enforcement initiative with paid media started in early 2002 and was on-going in the New Orleans and Houma regions (regions 1 and 3 respectively) during the 2002 observational survey. It should also be noted that the State Police Troop commander in the Houma region is responsible for initiating a highly coordinated and publicized seat belt enforcement effort starting in 2001 prior to the 2001 observation survey. From 2000 to 2001, seat belt use in the Houma region increased by 9.9 percentage points. From 2001 to 2002, seat belt use in the Houma region increased by 2.9 percentage points and in the New Orleans region increased by 0.8 percentage points.

In addition to a statewide enforcement initiative, special efforts involving a combination of paid and earned media and enforcement and non-enforcement messages were conducted in four

(Alexandria, Baton Rouge, Lake Charles and Shreveport) of the eight substate regions for approximately six months prior to 2003 data collection effort. A continuation of the Section 157 Discretionary Program was also being continued in the New Orleans region but at a much lower intensity than the previous year. The sizable gains in seat belt use for 2003 are viewed as the result of both the cumulative effect of prior years' efforts and a strong enforcement message.

Overall safety restraint use among Louisiana motorists continued to increase in 2004 (up 1.2 percentage points from the previous year). The 2004 data were the first collected using a new sample based on a design prepared by Dr. Helmut Schneider. Between 2003 and 2004 restraint use increased among motorists in automobiles (+1.3 percentage points), pickup trucks (+1.3) and SUVs (+1.0), and decreased slightly (-0.4) among drivers and front seat outboard passengers in vans. Compared to the 2003, restraint usage in 2004 remained unchanged in the Lake Charles region; decreased in three regions (New Orleans, Alexandria and Monroe); and increased in four regions (Baton Rouge, Houma, Lafayette and Shreveport).

During the 2004 regular session, the legislature re-instated the mandatory motorcycle helmet law effective August 15, 2004. The re-instatement of Louisiana's mandatory motorcycle helmet law had a pronounced impact on helmet usage. The motorcycle helmet usage estimate for Louisiana in 2005 is 99.3% for motorcycle drivers and passengers which represents a sharp increase from the 57.7% reported in 2004.

Between the 2004 and 2005 data collection periods, the Louisiana Highway Safety Commission continued statewide enforcement initiatives and safety restraint enforcement messages using both earned and paid media. Emphasis was generally given to safety restraint use among pickup truck occupants. The 2005 safety restraint use rate of 77.7% represents a 2.7 percentage point increase over 2004. Safety restraint use among pickup truck occupants, 72.3%, represents a 3.6 percentage point increase over the prior year and the first year safety restraint use among pickup truck occupants exceeded seventy percent.

Two significant hurricanes, Katrina and Rita, did serious damage and disruption to Louisiana between the time data were collected on the twenty-first wave survey in 2005 and the twenty-second wave survey in 2006. Substantial displacements of people and organizations occurred as a result of damage associated with these two hurricane events. Hurricane Katrina and subsequent flooding due to levee failure cause extensive destruction across southeast Louisiana while Hurricane Rita wreaked havoc in the southwest portion of Louisiana. Although Louisiana's overall belt use rate decreased by 2.9 percentage points between 2005 and 2006, the decrease was much greater in the "hurricane areas"; New Orleans (Katrina) region down 5.9 percentage points and Lake Charles (Rita) region down 6.0 percentage points. The overall number of observations of occupants in 2006 was down from 2005 with the greatest decrease (5,852 fewer observations) being experienced in the New Orleans (Katrina) region. A change in fleet composition was also noted between 2005 and 2006, again with substantial changes within the New Orleans (Katrina) region. Automobile occupants as a percent of total occupants observed was down 9.8% statewide but down 18.0% in the New Orleans region. Pickup truck occupants as a percent of total occupants observed increased by 9.2% statewide but increased by 40.9% in the New Orleans (Katrina) region and 14.5% in the Lake Charles (Rita) region.

The results from the 2008 seat belt use observational survey indicate a very slight increase (0.3 percentage points) in seat belt usage from 2007. The 2008 statewide usage rate is 75.5% compared with 75.2% in 2007. Gains were measured in the Baton Rouge, Houma, Lafayette and Lake Charles regions. The gain in the Houma region was a substantial eleven percentage points. The regions with decreases in belt use were New Orleans and north Louisiana (Alexandria, Shreveport and Monroe regions).

Between the 2008 and 2009 data collection period, Louisiana, especially the south central part of the state, suffered a major hurricane (Gustav). Also during this period, the state contract for media placement of traffic safety messaging was being contested, and the state was without a media consultant.

From 2008 to 2009, the overall seat belt usage rate dropped by one percentage point to 74.5%. Gains in the New Orleans, Lake Charles and Alexandria regions were offset by a large decline in the Houma/Thibodaux region and lesser declines in the Baton Rouge and Lafayette regions. North Louisiana (Shreveport and Monroe regions) remained essentially unchanged from the previous year.

PROCEDURES

TRAINING

All field observers completed a training session. The training session included background information on the project design, classification of observation sites, data collection procedures, scheduling, supervision, fiscal accounting, and administrative reporting.

SCHEDULING

Applied Technology Research Corporation (ATRC) prepared daily observation schedules and compiled location maps for the observation locations selected by the design contractor. In most cases, each daily schedule generally covered six to eight locations per observer day. Observations were made for a period of sixty (60) minutes at each site. In accordance with the National Highway Traffic Safety Administration (NHTSA) guidelines, all days of the week were represented in the survey and the assignment by time within day was randomized within site clusters.

OBSERVATION DATA COLLECTION

ATRC field observers followed the daily observation schedules and recorded observation data on the data collection form. Completed observation forms were subjected to edit and verification procedures by supervisors prior to entry.

QUALITY CONTROL

Periodic inspections were made by field supervisors to each region. The purpose of these visits was to monitor data collection and administrative reporting by field observers. Supervisors also met with observers to discuss and clarify any difficulties encountered while working. Field supervisors reviewed data reports, and any problems noted were brought to the attention of the field observers. Remedial data collection activities were initiated to verify or replace any questionable data.

DATA EDITS

All completed data collection forms were subject to an edit by records clerks and/or field supervisors. Checks were made between tallies and summary totals at observation sites. A master log of sites was maintained to ensure that all scheduled site observations were conducted and any changes or substitutions in locations was documented. The data collection forms were also edited for completeness of entries which included location, condition and time entries as well as data counts. Problematic data were brought to the attention of project management personnel who were responsible for remedial action implementation.

FISCAL MANAGEMENT

During the periodic inspections conducted by field supervisors, all fiscal source documents (time sheets, travel and other direct expense reports) were reviewed for accuracy. In addition to this verification in the field, the fiscal reports were also reviewed by clerical staff.

REFERENCES

1. Schneider, Helmut, 2003, Design of Louisiana Safety Belt Use Survey, September 21, 2003.

APPENDIX A. DATA COLLECTION FORMS

