

2010 Mississippi Child Restraint Survey

Prepared for:

The Office of Highway Safety
Division of Public Safety Planning,
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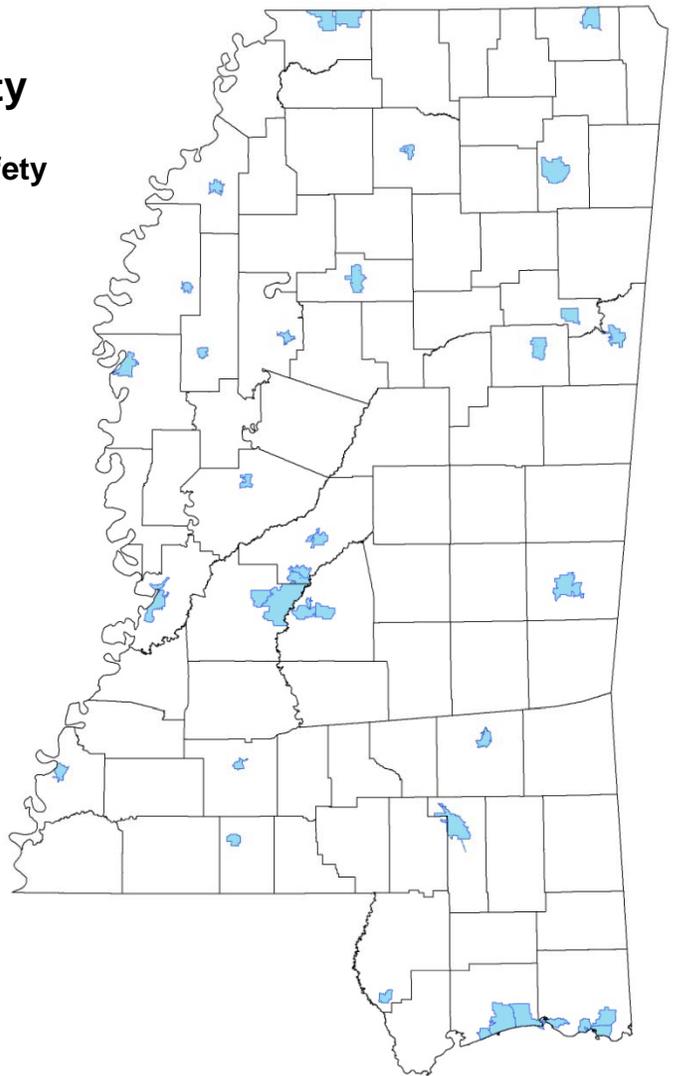


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INTRODUCTION

In 2010, highway safety continues to be a major health problem for children in Mississippi. Each year citizens, governmental agencies and private advocacy groups participate in a major effort to combat this needless death and injury to our children. Tickets are written to those who violate the child restraint law. Large numbers of child restraint clinics staffed by highly trained child restraint technicians are provided at no cost to the public. A sizable amount of time, effort and money are devoted to increasing child restraint use. These efforts included media campaigns, brochures, programs, providing free child restraint seats to those who cannot afford them, etc. In order to help evaluate the effect of these programs, child restraint surveys are conducted in cities in every geographical area of Mississippi (See Figure 1). The surveys are not truly scientific, but do provide an overall raw analysis on child restraint use in Mississippi. Since these surveys are only observational they do not provide a measure of the proper use of child restraints, except in a very general way; i.e., incorrectly placing children in rear-facing seats on the front seat, in front of airbags.

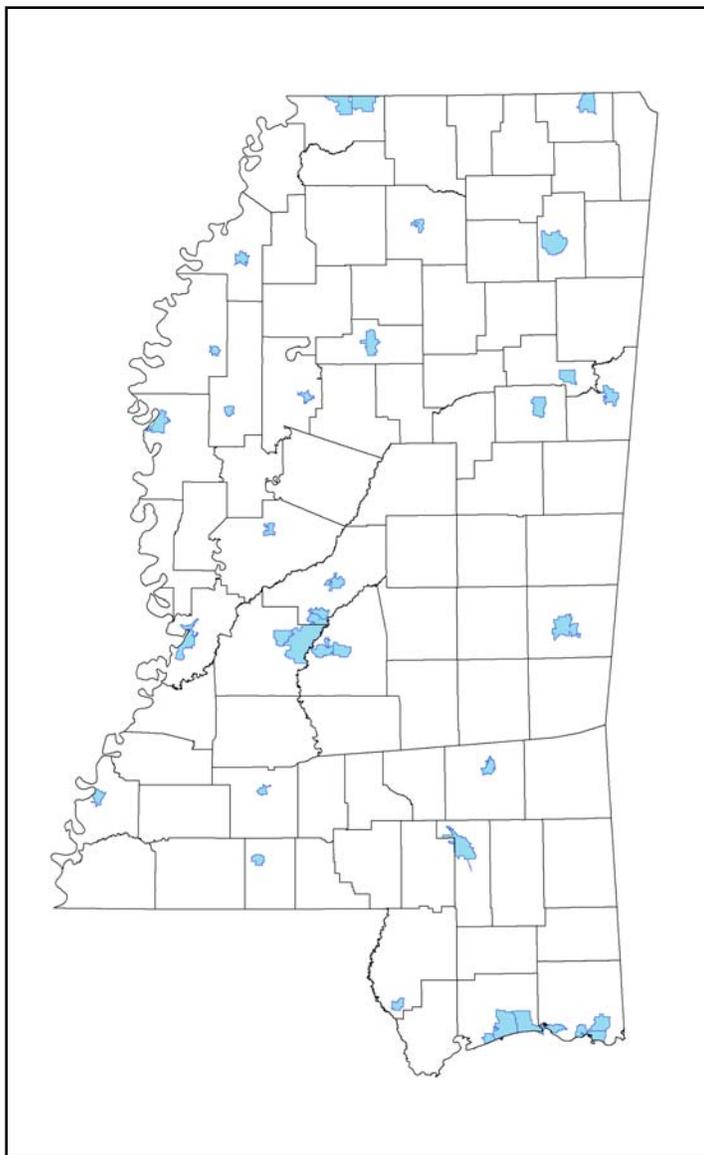


Figure 1: Surveyed city locations in Mississippi shows observational surveys conducted in every portion of the state

These efforts have had gratifying results in that child restraint use in Mississippi has continued to rise over time. However, in comparison to other states, child restraint use in Mississippi continues to be low and proper restraint use even lower. Perhaps a way to increase the use of child restraints is further education and training. More emphasis placed on the training of health department staffs and human resource people could result in a positive impact in the correct use of child restraint systems in vehicles.



SURVEY METHODOLOGY

The current child restraint survey was conducted in 37 Mississippi municipalities, at 316 observation sites, covering every region in the state of Mississippi. Table 1 provides a list of the sample cities, the number of unique locations, the total number of vehicles observed, percent of observations with regard to the total number of observations, and the populations of the various cities.

Table 1: Survey Cities, Number of Locations, Number of Observations

City	Number of Locations Observed	Total Number of Vehicles Observed	Percent of Total Observations (%)	City Population (2009 Estimate*)
1. Biloxi	8	97	1.4	45,766
2. Brandon	8	243	3.6	22,335
3. Brookhaven	8	136	2.0	13,206
4. Canton	8	243	3.6	12,572
5. Clarksdale	8	485	7.2	17,734
6. Cleveland	8	125	1.9	12,027
7. Clinton	8	192	2.9	26,258
8. Columbus	8	89	1.3	23,818
9. Corinth	8	119	1.8	14,289
10. Gautier	8	89	1.3	16,460
11. Greenville	8	327	4.9	35,355
12. Greenwood	8	148	2.2	15,808
13. Grenada	8	159	2.4	14,656
14. Gulfport	8	113	1.7	70,794
15. Hattiesburg	8	101	1.5	53,582
16. Indianola	8	90	1.3	10,503
17. Jackson	28	638	9.5	175,021
18. Laurel	8	34	.5	18,827
19. Long Beach	8	62	.9	12,245
20. Madison	8	231	3.4	21,938
21. McComb	8	86	1.3	13,645
22. Meridian	8	163	2.4	39,695
23. Moss Point	8	94	1.4	13,952
24. Natchez	8	103	1.5	16,045
25. Ocean Springs	8	101	1.5	17,363
26. Olive Branch	8	425	6.3	32,531
27. Oxford	8	83	1.2	17,636
28. Pascagoula	8	91	1.4	23,692
29. Picayune	8	97	1.4	12,023
30. Pearl	8	224	3.3	24,840
31. Ridgeland	8	236	3.5	21,690
32. Southaven	8	415	6.2	45,395
33. Starkville	8	115	1.7	24,324
34. Tupelo	8	206	3.1	36,337
35. Vicksburg	8	90	1.3	24,896
36. West Point	8	107	1.6	11,166
37. Yazoo City	8	376	5.6	11,144
Totals	316	6,733	100	1,019,568

* July 1, 2009 city population estimates retrieved from U.S. Census Bureau at www.census.gov

Due to the size of Jackson, data was collected from 28 sites within the city. Although only about 9.5 percent of the observations were made in Jackson, the population of Jackson represents about 17.2 percent of the population of the sample cities. Using the population figures from the 2009 Census estimates, 37 of 40 cities with at least a population of 10,000 persons were included in the survey. Sample cities are located in every geographical area of the State of Mississippi.

An attempt was made to select sites in each city that would provide a cross sample of the population. A systematic sample was selected by obtaining sites from four different types of locations: (1) a day care or controlled intersection with a signal light; (2) county or city health departments, welfare, or social service offices; (3) hospitals or pediatric offices; (4) shopping centers and fast food establishments.

Where it was feasible, local observers were utilized because they were familiar with the diversity of people in the area and could determine the most appropriate site locations. Previous observers were employed when available to promote consistency. Additional information was collected for each car. These data were the driver's gender, the time of day, the day of week, the weather during the time period of the observation, and whether or not the driver was wearing a seat belt.

Each surveyor was given a checklist for making observations. Locations were observed for 40-minute periods and surveyors were instructed to skip cars when they were unsure of the observation. The following instructions were given to the surveyors: (1) Record the use of vehicles only with children as passengers. (2) Observe all children under the age of seven. Devices designed to be rear facing are recorded as infant seats. Devices designed to be forward facing devices are recorded as toddler seats. (3) Correct use of an infant restraint is determined if the seat installed is facing the rear of the vehicle, along with proper use of the harness system and a compatible vehicular restraint system. (4) Correct use of a toddler seat is determined if a harness and/or shield apparatus in the forward facing position protected the toddler. (5) Proper booster seat use is determined when the vehicular restraint system was correct for the size of the child.



RESTRAINT USAGES OF CHILDREN AND ADULTS

There were children in 6,567 cars observed during the survey period. These cars contained a total of 9,798 children under the age of 7, in 37 municipalities.

In Table 2, information is provided on the type of location, the number of children observed and whether they were restrained. It should be noted that none of the locations are definitive of that type of location, but only provide some indication of the level of use. Also, the overall calculated child restraint usage rate for Mississippi in 2010 was 79.86%.

Table 2: Child Restraint Use by Type of Location

Type of Location	Not Using Restraints	Using Restraints	Total Observations	Percent Using Restraints (%)
1. Fast Food	307	1159	1466	79.1%
2. Large Shopping Mall	95	283	378	74.9%
3. Grocery Store	196	716	912	78.5%
4. Daycare or Child Learning Center	303	1651	1954	84.5%
5. Health Dept. or Human Resources	120	403	523	77.1%
6. Medical Care Complex	60	334	394	84.8%
7. Playground, Park, Museum or Zoo	85	379	464	81.7%
8. Small Shopping Center or Wal-Mart	353	1133	1486	76.2%
9. Discount or Dollar Store	0	17	17	100.0%
10. Street Intersection	378	1243	1621	76.7%
11. Church or Church Nursery	42	342	384	89.1%
12. Service Station	22	59	81	72.8%
13. Restaurant	12	92	104	88.5%
14. Post Office	0	8	8	100.0%
15. Bank	0	6	6	100.0%
Totals	1973	7825	9798	79.86%

In Table 3, the percentage of drivers using seat belts by gender is presented. Of the drivers observed, 77.7% of the female drivers were belted while 67.7% of the male drivers used their seat belts. Overall, 72.7% of the adults observed were belted, and this percentage is considerably low compared with this year's official seat belt usage rate of 81.0% observed in the *2010 Seat Belt and Motorcycle Helmet Survey*.

Table 3: Seat Belt Usage Status for Drivers

Gender	Using Seat Belt	Not Using Seat Belt	Total Observations	Percent Using Seat Belts (%)
1. Male	1394	646	2058	67.7%
2. Female	3502	962	4509	77.7%
Totals	4896	1608	6567	72.7%



CHILD RESTRAINT USE BY SEATING POSITION OF CHILD

It is known that the safest place for a child to be restrained, or for that matter to ride unrestrained, is on the back seat (or second row of seats) of a vehicle. It would therefore be expected that adults putting children in the back seat of a vehicle would also have more awareness of the importance of using child restraints. The seating position, as well as whether the child was restrained, was recorded in this survey. As expected children on the back seat of automobiles were restrained at a higher rate than were those on the front seat. Children in the back seat were restrained at a rate of 77.7% while children on the front seat were restrained at a rate of 67.8%.

Table 4: Child Restraint by Position of Child

Seating Position	Not Restrained		Restrained		Total	
	Count	Percent (%)	Count	Percent (%)	Count	Percent (%)
1. Front Seat	916	32.2%	1925	67.8%	2841	29.0%
2. Back Seat	1546	22.3%	5401	77.7%	6947	71.0%
Totals	2462	25.2%	7326	74.8%	9788	100.0%

CHILD RESTRAINT USE BY SEATING POSITION OF CHILD AND GENDER OF DRIVER

Male drivers were slightly more likely to place a child on the front seat than were female drivers. Children in vehicles driven by male drivers were placed on the front seat of the automobile 31.9% of the time as compared to 27.7% when the driver of the vehicle was female. However, female drivers who placed their children on the front seat were only slightly more likely (3 percent difference) to use child restraints than male drivers who had children on the front seat. Approximately 66.8% of the children on the front seat were restrained when the driver was male, while 70.0% of the children in the front seat of vehicles driven by females were restrained. Children placed on the front seat, as opposed to the back seat, were more likely to be unrestrained regardless of the sex of the driver. Female drivers are also slightly more likely to buckle children in the back seat when compared to male drivers with children in the rear seat. The data suggests about 74.1% of male drivers will utilize some kind of child restraint for children when they are in control of the vehicle, and likewise about 77.7% of female drivers buckle up children when in control of the vehicle. Obviously educational efforts directed at restraining children in motor vehicles and also placing these children on back seat for safety reasons have had some positive effects in the state of Mississippi. Refer to Table 5 on the next page for more details.

Table 5: Child Restraint by Position of Child by Gender of Driver

MALES

Seating Position	Not Restrained		Restrained		Total	
	Count	Percent (%)	Count	Percent (%)	Count	Percent (%)
1. Front Seat	322	33.2%	647	66.8%	969	31.9%
2. Back Seat	467	22.5%	1606	77.5%	2073	68.1%
Totals	789	25.9%	2253	74.1%	3042	100.0%

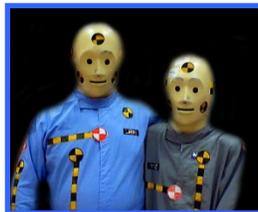
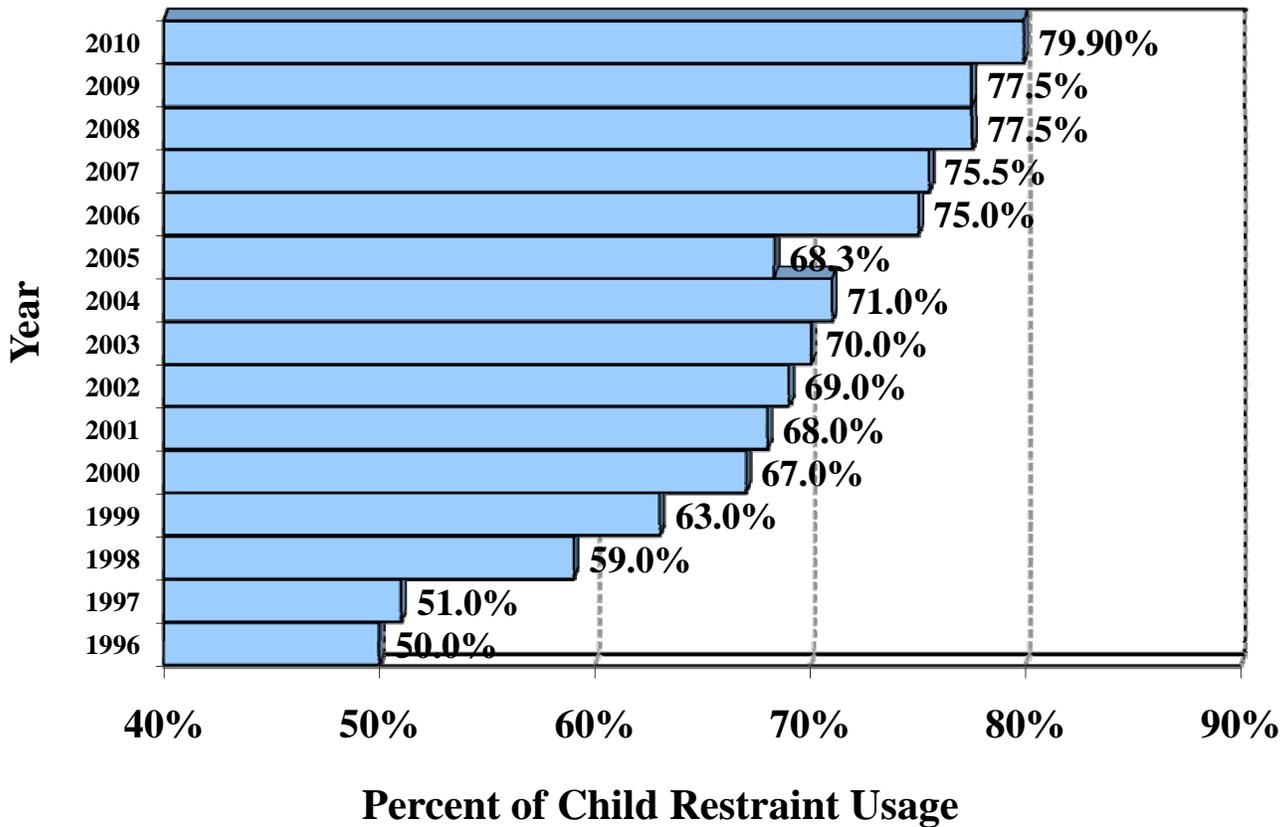
FEMALES

Seating Position	Not Restrained		Restrained		Total	
	Count	Percent (%)	Count	Percent (%)	Count	Percent (%)
1. Front Seat	534	30.0%	1248	70.0%	1782	27.7%
2. Back Seat	905	19.4%	3754	80.6%	4659	72.3%
Totals	1439	22.3%	5002	77.7%	6441	100.0%

CONCLUSION

Child restraint use in Mississippi was found to be **79.86% for the year 2010**. This rate is a little over two percent higher than last year's child restraint usage. Over time, the effort toward increasing and improving child restraint use has been both extensive and intensive. There is also little doubt that having a primary child restraint law has made a significant impact on the high use of child restraints in Mississippi. Also, the relatively new 2006 primary seat belt law for all front seat passengers could be an influential factor in the usage rate increase. Nevertheless, Mississippi is moving in the right direction with regard to child passenger safety, and perhaps with continued education and enforcement child restraint usage rates could be brought to an even higher level.

Mississippi Child Restraint Usage Rates (1996 – 2010)



Please Buckle Up Your Child



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