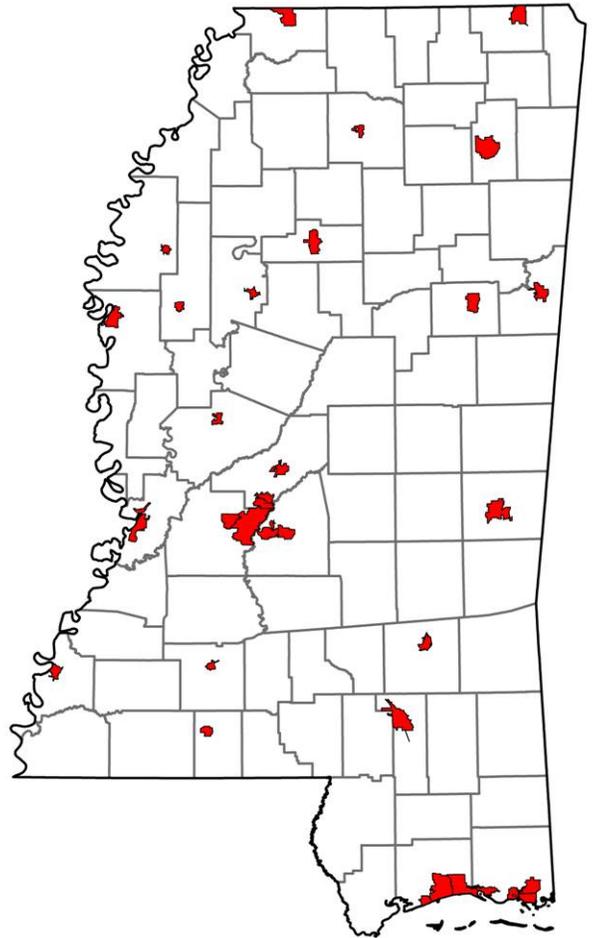


2006 Mississippi Child Restraint Survey

Prepared for:
The Office of Highway Safety
Division of Public Safety Planning,
Mississippi Department of Public Safety

December 2006



Prepared by:
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James W. Landrum
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SSRC

Social Science Research Center
Mississippi State University

FINAL REPORT
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INTRODUCTION

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.

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.

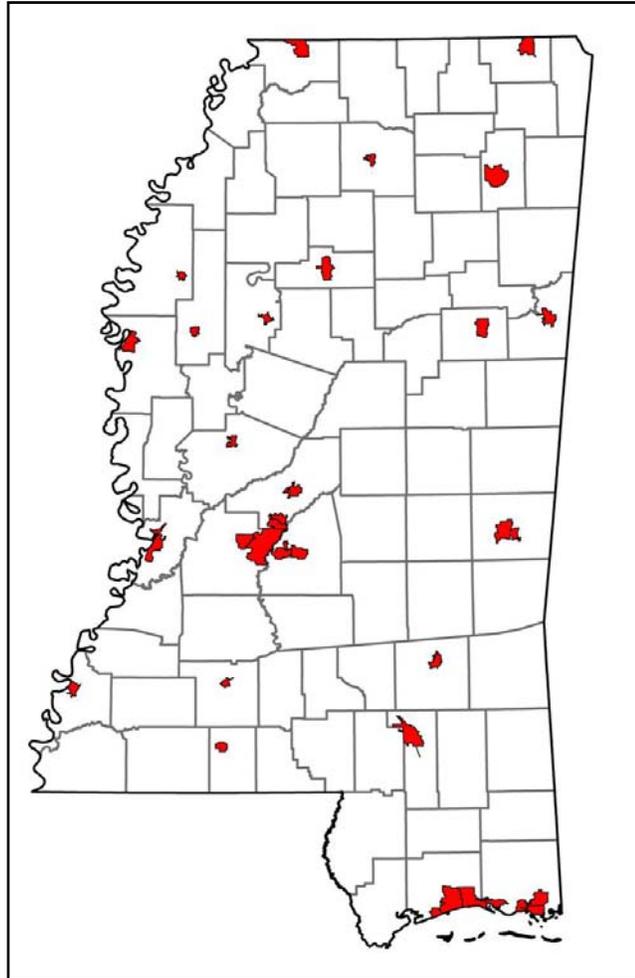


Figure 1: Surveyed city locations in Mississippi shows observational surveys conducted in every portion of the state



SURVEY METHODOLOGY

The current child restraint survey was conducted in 33 Mississippi municipalities, at 283 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 observations, 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	Total Number of Observations	Percent of Total Observations	City Population (2005 Estimates*)
1. Biloxi	8	74	1.7	50,209
2. Brandon	9	172	4.0	19,390
3. Brookhaven	7	90	2.1	9,907
4. Canton	8	144	3.4	12,507
5. Cleveland	8	93	2.2	12,818
6. Clinton	8	135	3.2	26,017
7. Columbus	8	60	1.4	24,425
8. Corinth	8	125	2.9	14,256
9. Gautier	8	91	2.1	16,846
10. Greenville	8	51	1.2	38,724
11. Greenwood	8	92	2.2	17,344
12. Grenada	8	151	3.5	14,569
13. Gulfport	8	116	2.7	72,464
14. Hattiesburg	8	89	2.1	47,176
15. Indianola	8	113	2.7	11,321
16. Jackson	27	606	14.2	177,977
17. Laurel	8	45	1.1	18,298
18. Long Beach	8	126	3.0	17,283
19. Madison	8	170	4.0	16,737
20. McComb	8	211	5.0	13,244
21. Meridian	8	61	1.4	38,605
22. Moss Point	8	97	2.3	15,125
23. Natchez	8	126	3.0	16,966
24. Ocean Springs	8	96	2.3	17,783
25. Oxford	8	68	1.6	13,618
26. Pascagoula	8	113	2.7	25,173
27. Pearl	8	150	3.5	23,111
28. Ridgeland	8	145	3.4	21,236
29. Southaven	8	192	4.5	38,840
30. Starkville	8	103	2.4	22,131
31. Tupelo	8	51	1.2	35,673
32. Vicksburg	8	122	2.9	25,752
33. Yazoo City	8	183	4.3	11,879
Totals	283	4,261	100	937,404

* July 1, 2005 city population estimates retrieved from U.S. Census Bureau at www.census.gov

Due to the size of Jackson, data were collected from 27 sites within the city. Although 14.2 percent of the observations were made in Jackson, the population of Jackson represents about 19 percent of the population of the sample cities. Using the population



figures from 2005 Census estimates, 32 of 38 cities with at least a population of 10,000 persons were included in the survey. One city, Brookhaven, had a population of less than 10,000. Brookhaven was kept in the study due to its history of being in the study. 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 five. 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 4,261 cars observed during the survey period. These cars contained a total of 6,429 children under the age of 5, in 33 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 was found to be 75.0%.

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	219	584	803	72.7 %
2. Large Shopping Mall	52	46	98	46.9 %
3. Grocery Store	133	380	513	74.1 %
4 Daycare or Child Learning Center	186	808	994	81.3 %
5. Health Dept. or Human Resources	140	273	413	66.1 %
6. Medical Care Complex	93	299	392	76.3 %
7. Playground, Park, Museum or Zoo	117	335	452	74.1 %
8. Small Shopping Center or Wal-Mart	195	673	868	77.5 %
9. Discount or Dollar Store	43	49	92	53.3 %
10. Street Intersection	320	789	1,109	71.1 %
11. Church or Church Nursery	40	385	425	90.6 %
12. Service Station	28	40	68	58.8 %
13. Restaurant	37	98	135	72.6 %
14. Post Office	1	17	18	94.4 %
15. Bank	1	27	28	96.4 %
Totals	1,605	4,803	6,408	75.0 %

In Table 3, the percentage of drivers using seat belts by gender is presented. Of the drivers observed, 70.3% of the female drivers were belted while only 61.3% of the male drivers used their seat belts. Overall, 67.6% of the adults observed were belted.

Table 3: Seat Belt Usage Status for Drivers

Gender	Using Seat Belt	Not Using Seat Belt	Total Observations	Percent Using Seat Belts (%)
1. Male	801	506	1,307	61.3 %
2. Female	2,068	872	2,940	70.3 %
Totals	2,869	1,378	4,247	67.6 %



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 of a car. It would therefore be expected that adults putting children in the back seat of a car 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 the present 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 76.9% while children on the front seat were restrained at a rate of 69.9%

Table 4: Child Restraint by Position of Child

Seating Position	Not Restrained		Restrained		Total	
	Count	Percent (%)	Count	Percent (%)	Count	Percent (%)
1. Front Seat	523	30.1 %	1,212	69.9 %	1,735	27.0 %
2. Back Seat	1,082	23.1 %	3,599	76.9 %	4,681	73.0 %
Totals	1,605	25.0 %	4,811	75.0 %	6,416	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 cars driven by male drivers were placed on the front seat of the car 29.5% of the time as compared to 25.9% when the driver of the vehicle was female. However, female drivers who placed their children on the front seat were much more likely to use child restraints than were male drives with children on the front seat. Only 63.4% of the children on the front seat were restrained when the driver was male, while 73.4% of the children in the front seat of cars driven by females were restrained. However, children placed on the front seat were more likely to be unrestrained regardless of the sex of the driver. Interestingly, male and female drivers choosing to place their children on the back seat were fairly comparable in restraining the children. The data suggests three out of four Mississippi males and females buckle up children when placing them in the back seat. Obviously educational efforts directed at placing children on back seat have had some effect. Refer to Table 5 on the next page for more details.



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

MALES

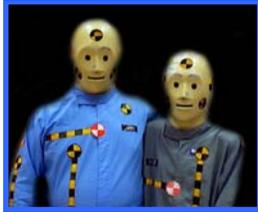
Seating Position	Not Restrained		Restrained		Total	
	Count	Percent (%)	Count	Percent (%)	Count	Percent (%)
1. Front Seat	217	36.6 %	376	63.4 %	593	29.5 %
2. Back Seat	346	24.4 %	1,073	75.6 %	1,419	70.5 %
Totals	563	28.0 %	1,449	72.0 %	2,012	100.0 %

FEMALES

Seating Position	Not Restrained		Restrained		Total	
	Count	Percent (%)	Count	Percent (%)	Count	Percent (%)
1. Front Seat	302	26.6 %	834	73.4 %	1,136	25.9 %
2. Back Seat	733	22.5 %	2,518	77.5 %	3,251	74.1 %
Totals	1,035	23.6 %	3,352	76.4 %	4,387	100.0 %

CONCLUSION

Child restraint use in Mississippi was found to be **75.0% for the year 2006**. This is a slightly positive jump compared to the rates found in the last three years – 2003 (70%), 2004 (71%) and 2005 (68.3%). 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 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.



Please Buckle Up Your Child



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