Alabama Observational Survey of Occupant and Child Restraint Use 2010

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Survey Design

The Injury Prevention Branch of the Bureau of Health Promotion and Chronic Disease, within the Alabama Department of Public Health, conducts an annual survey of vehicle safety belt usage and child restraint usage throughout Alabama. Year 2010 marks the twenty-first time that the required National Highway Traffic Safety Administration (NHTSA) guidelines were followed for the surveillance procedure.

The NHTSA sampling system incorporates a probability based multi-staged stratified sampling approach. This approach provides data for rural and urban roadways. This sampling system does not, however, overlook the larger counties, as all four metropolitan areas (Jefferson, Madison, Mobile, and Montgomery) are included in the survey. A total of 15 counties actually compose the entire survey area. In addition to the four metropolitan areas, 11 counties were randomly selected from a pool of the 37 largest counties. A majority of Alabama residents are in the sample pool, since 85% of the state's population lies within these 37 counties. The counties are Blount, Colbert, Escambia, Etowah, Houston, Jefferson, Lawrence, Lee, Madison, Marshall, Mobile, Montgomery, Shelby, Tuscaloosa, and Walker.

Occupant Restraint Observational Survey

For the safety belt usage survey, 23 sites in each of the 15 counties are randomly selected based on Average Daily Traffic (ADT) totals supplied by the Alabama Department of Transportation. In the surveys, ADTs are broken down into three categories: low (0-4,999), medium (5,000-10,499) and high (10,500-75,000). At least one site from each category is surveyed in each county chosen. A total of 345 sites were selected and observed for one hour,

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using the curbside lane as the reference position. At each site, surveillance was done to determine the number of people in the front outboard seats of the cars and the number of these occupants wearing safety belts. This year, Survey 1 was conducted during a two-week period during May 2010 and Survey 2 took place during a two-week period in June 2010.

Child Restraint Observational Survey

The child restraint survey took place at 10 randomly selected sites in each of the 15 counties. The counties and sites are the same as those in the Click-It-or-Ticket campaign. At least one site from each ADT category is surveyed in each county chosen. Each site required one hour of direct observation. The survey required a total of 150 hours of direct observation. All children who appeared to be age five and under were observed, in any position in the car. The survey sites selected proportionally reflect road travel in urban and rural areas and account for road volume. The survey results measure a proportional distribution which resembles the statewide population. The survey was conducted during July 2010.

Occupant Restraint Survey Results

The survey team observed a total of 55,901 front seat occupants in 43,403 vehicles throughout the 15 selected counties. Alabama was estimated to have a weighted safety belt usage rate of 91%. Variance (V) and Standard Error (SE) were calculated and considered acceptable. Houston County had the highest usage rate of 95%, followed closely by Colbert County at 95%. Blount County's restraint rate was 82%, the lowest rate of the surveyed counties. The survey determined that the observed female occupants' restraint usage rate of 96% was greater than males' rate of 86%.

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Child Restraint Survey Results

The survey team observed a total of 3,054 children, approximately aged five and under, in any position in the vehicle, of those 2,844 were restrained. Alabama was estimated to have a child restraint usage rate of 93%. Etowah County had the highest rate of 96%. Walker County had the lowest rate of 77%. Observations of unrestrained children accounted for 6.88% of all observations and 58% of the unrestrained children were observed in the front seat of the vehicle.

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State Milestones

1982 Car Seat Law - through age 3

Every person transporting a child under the age of three years in a motor vehicle shall provide for the protection of the child by properly using a child passenger restraint system meeting federal motor vehicle safety standards.

✦✦✦✦

1989 Car Seat Law - under the age of 6

Changed the 1982 Car Seat Law by raising the age to children required to use a child passenger restraint system to 6 years.

✦✦✦✦

1991 Secondary Seat Belt Law

Each front seat occupant of a passenger car manufactured with safety belts in compliance with Federal Motor Vehicle Safety Standard No. 208 shall have a safety belt properly fastened about his body at all times when the vehicle is in motion. Failure to use safety belts is a secondary offense.

✦✦✦✦

1999 Primary Seat Belt Law

Changed the 1991 Seat Belt Law by making failure to use safety belts a primary offense.

✦✦✦✦

2006 Car Seat Law – under the age of 15

Changed the 1989 Car Seat Law by requiring children up to age 15 to be in an appropriate restraint while riding in a vehicle. Provided specific criteria for car seat and seat belt use by children in motor vehicles in Alabama.

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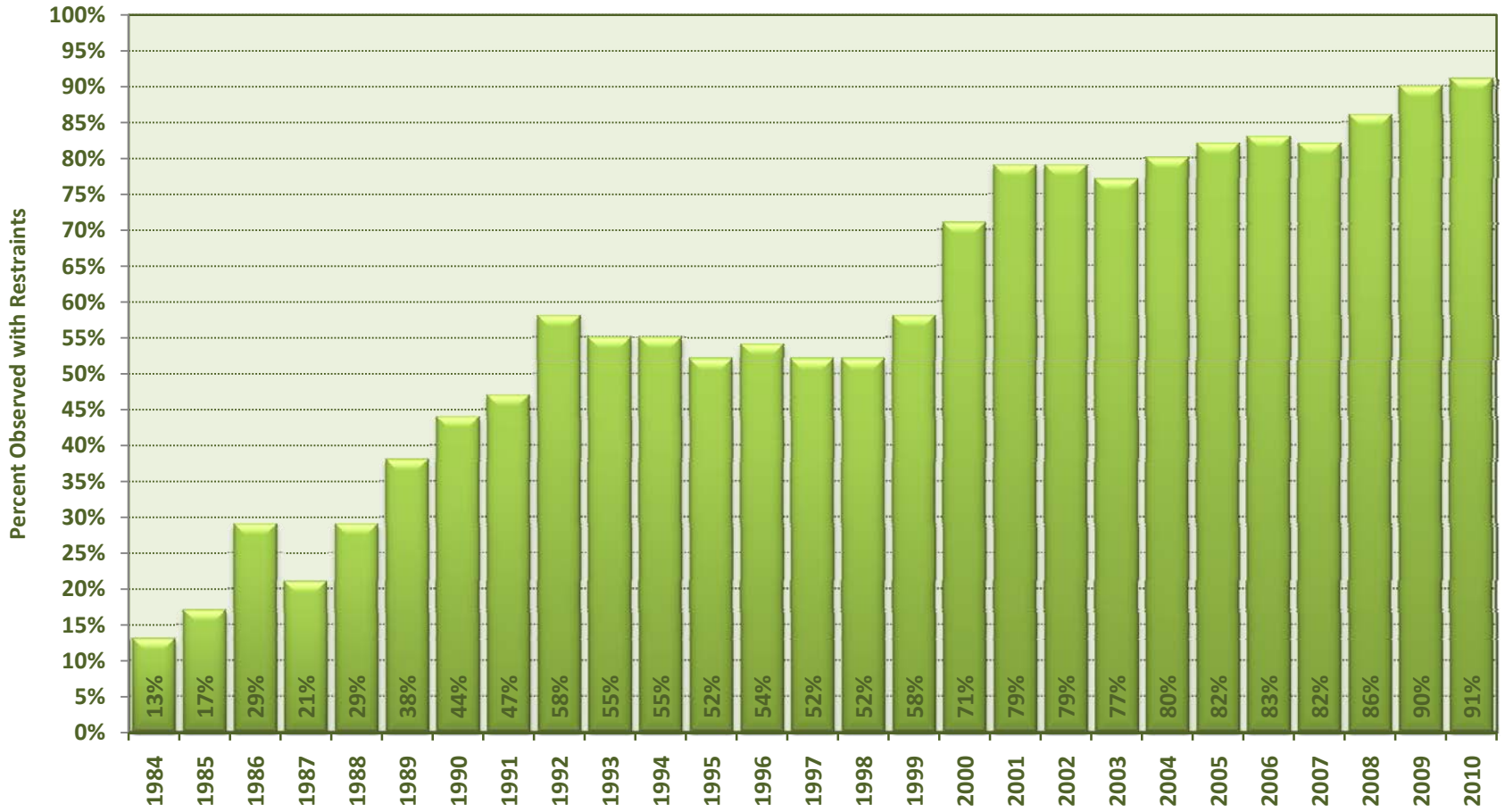
Alabama Occupant Restraint Usage, 1984--2010



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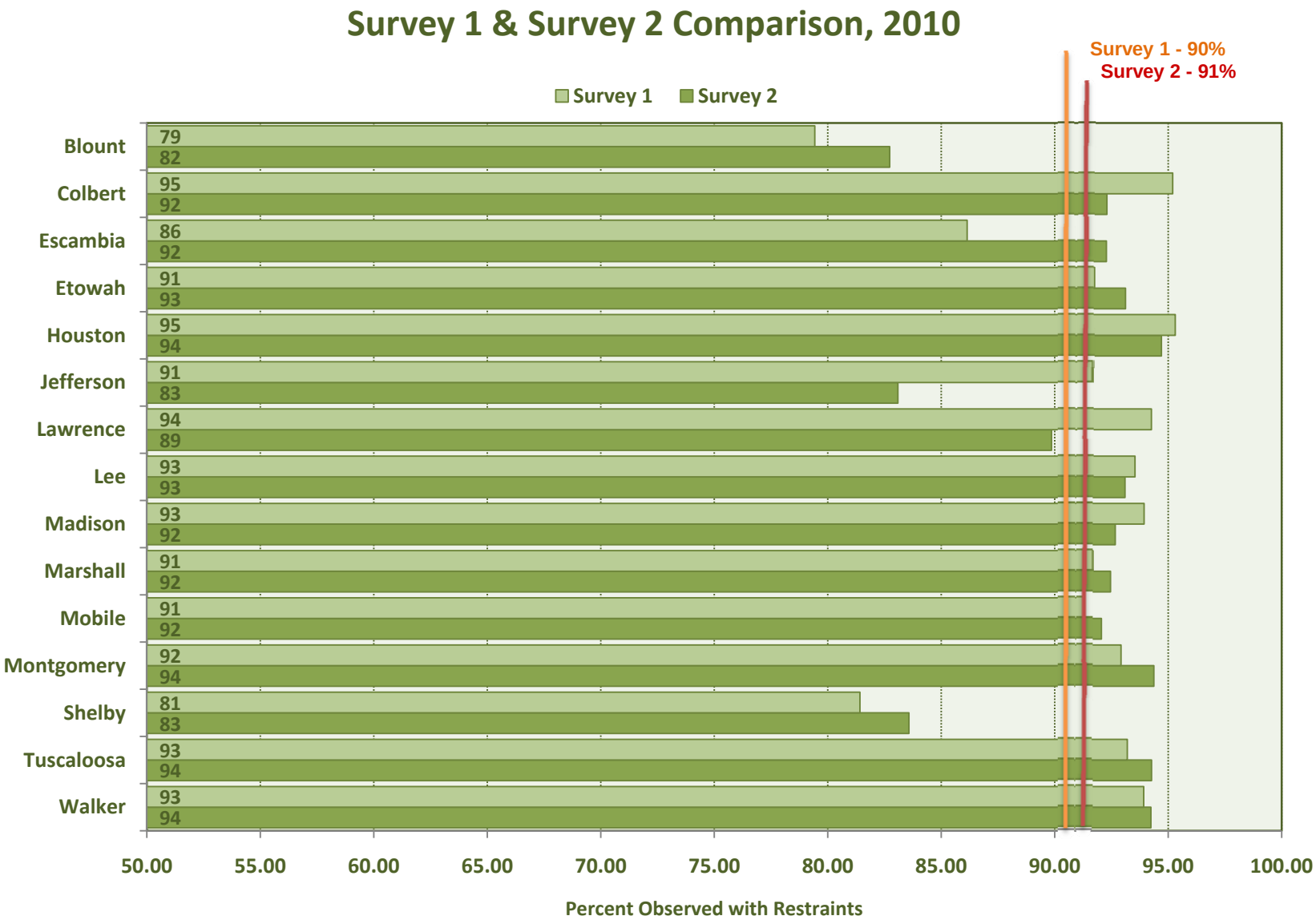

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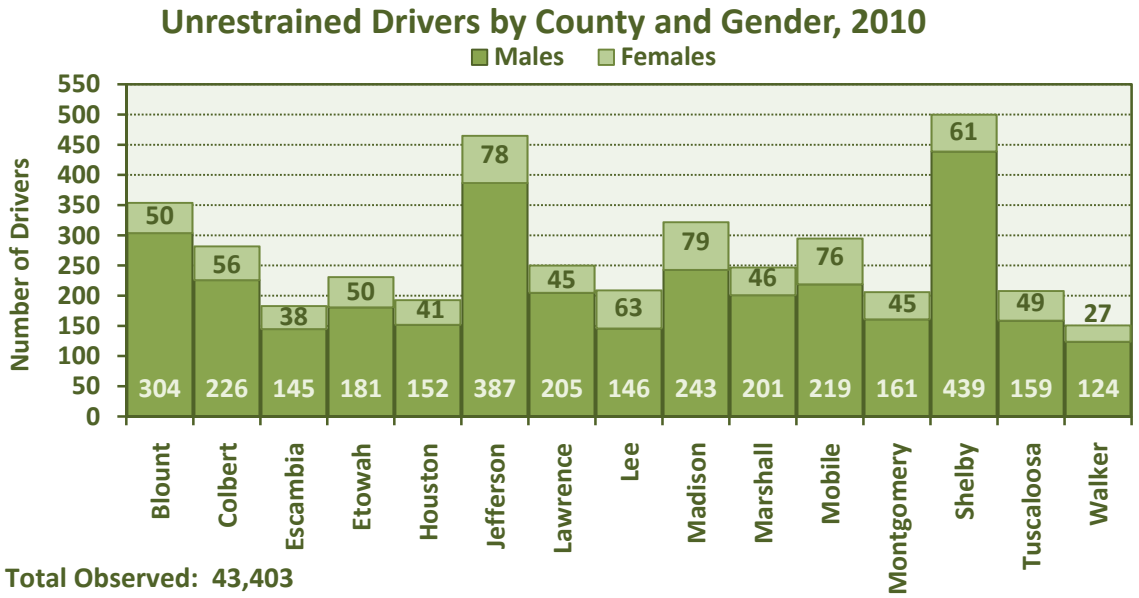
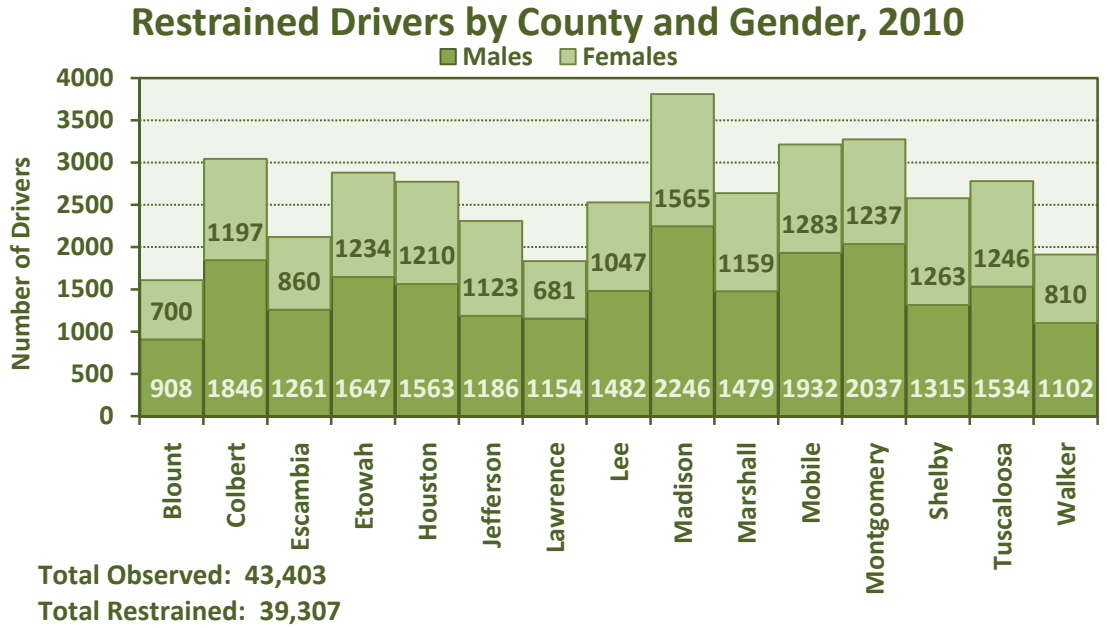


Total Observed: 43,403
Total Unrestrained: 4,096



Total Observed: 43,403
Total Restrained: 39,307

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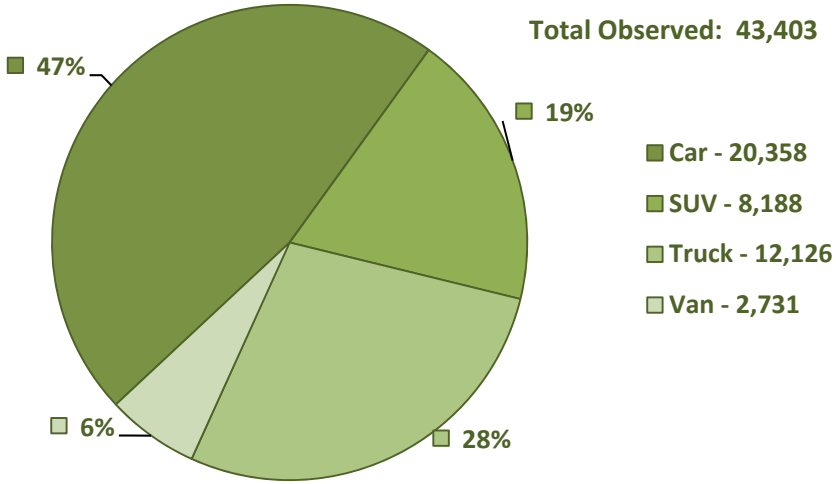
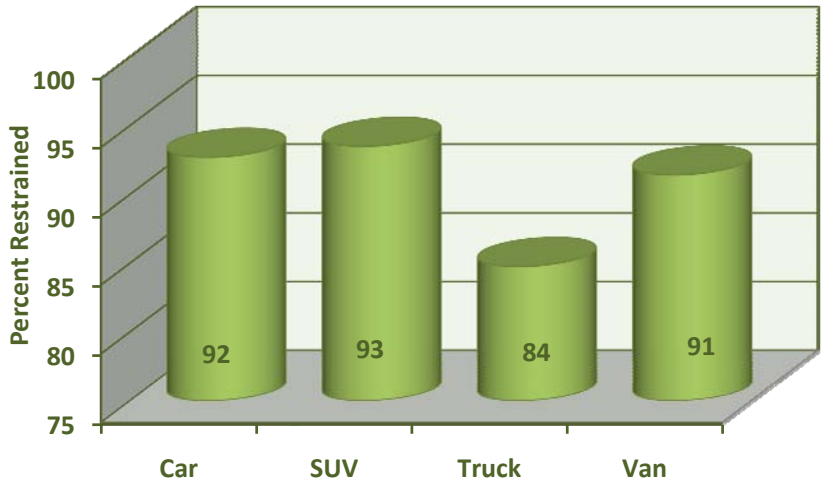
Vehicle Types Observed, 2010



Vehicle Drivers' Seatbelt Use, 2010



Total Restrained Drivers: 39,307

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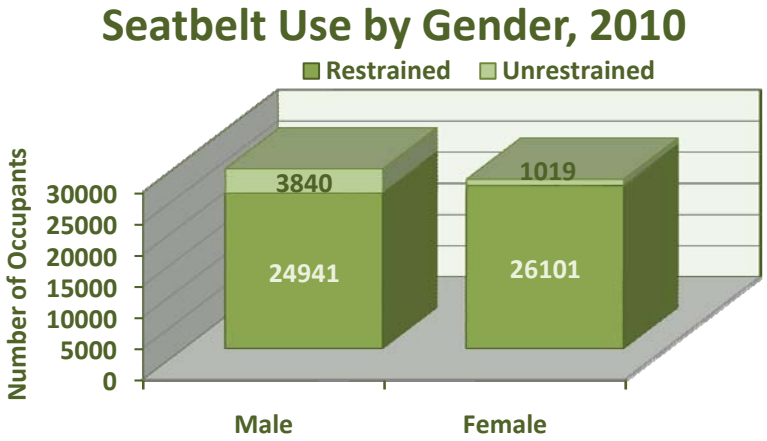

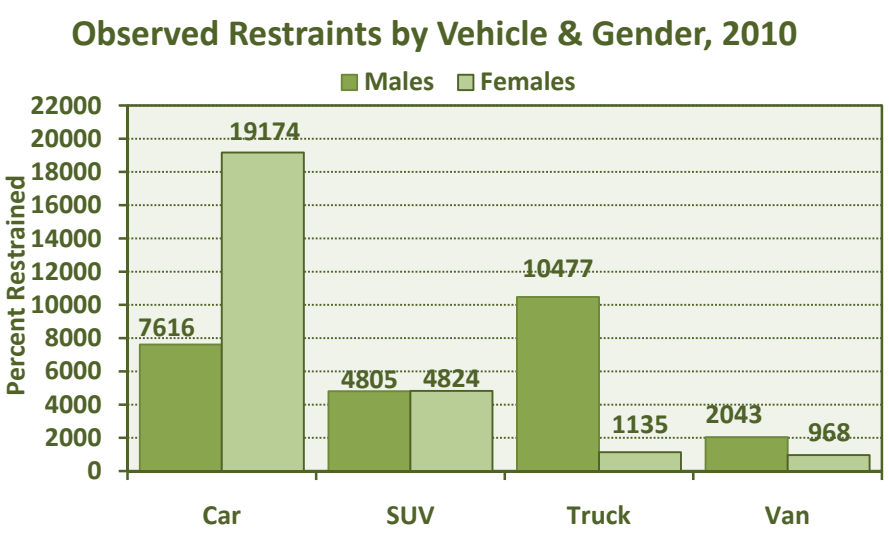

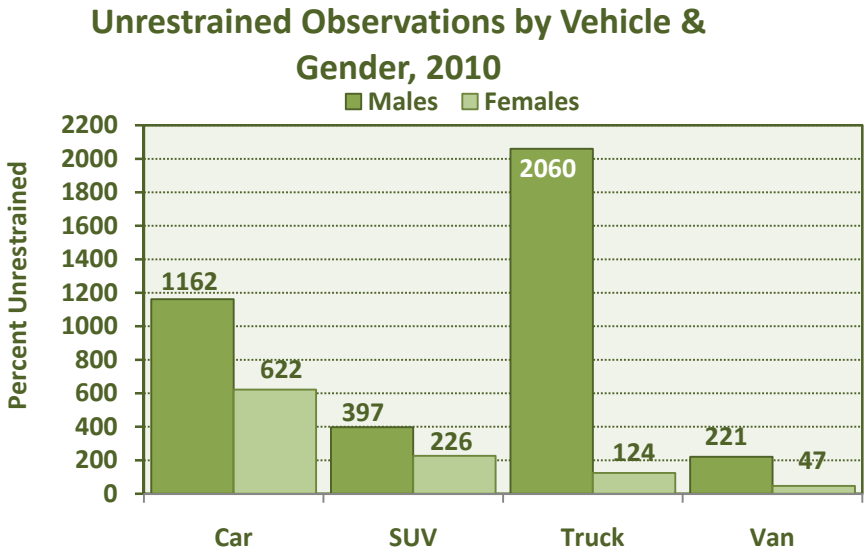

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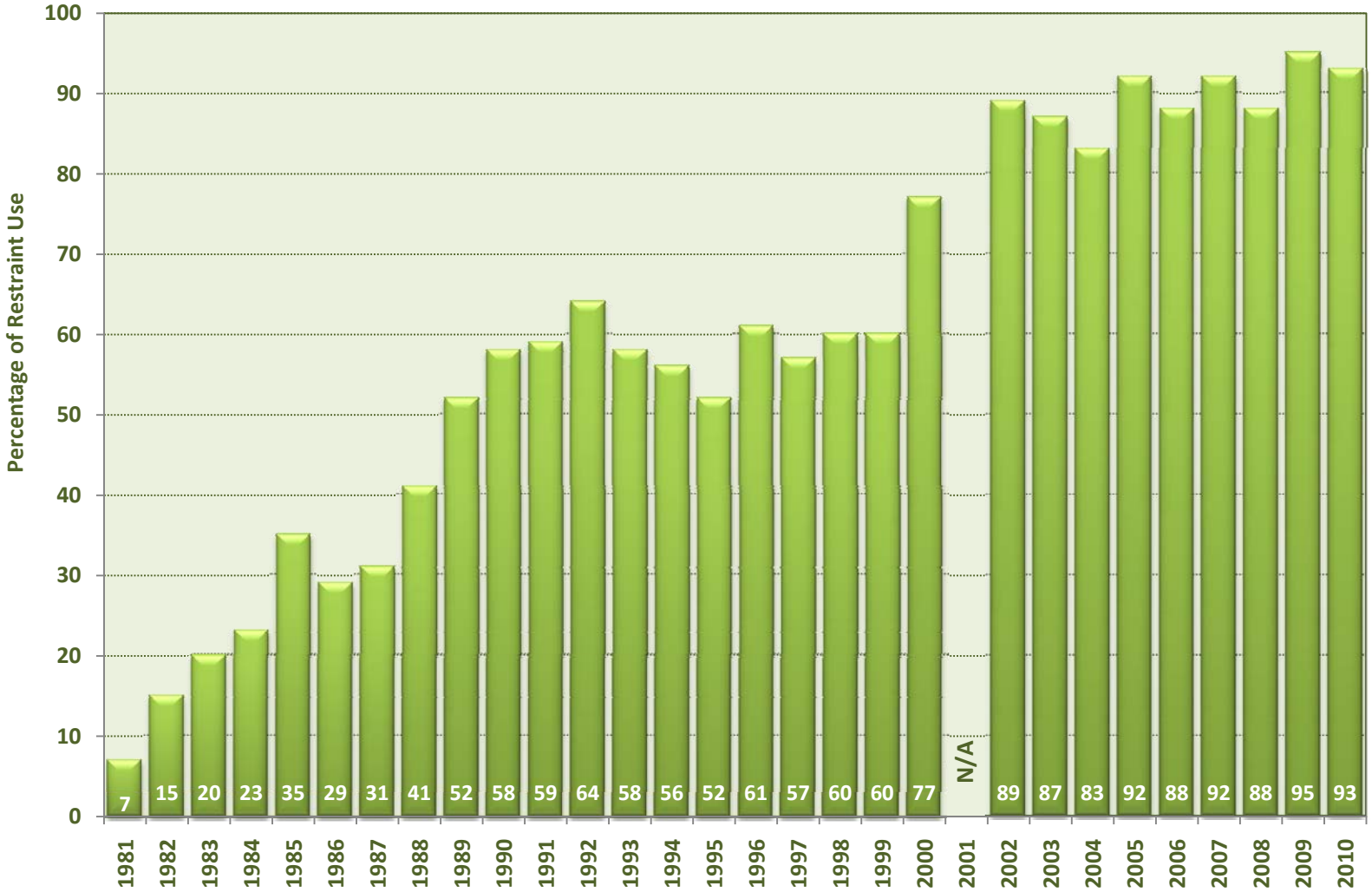
Alabama Child Restraint Usage, 1981-2010



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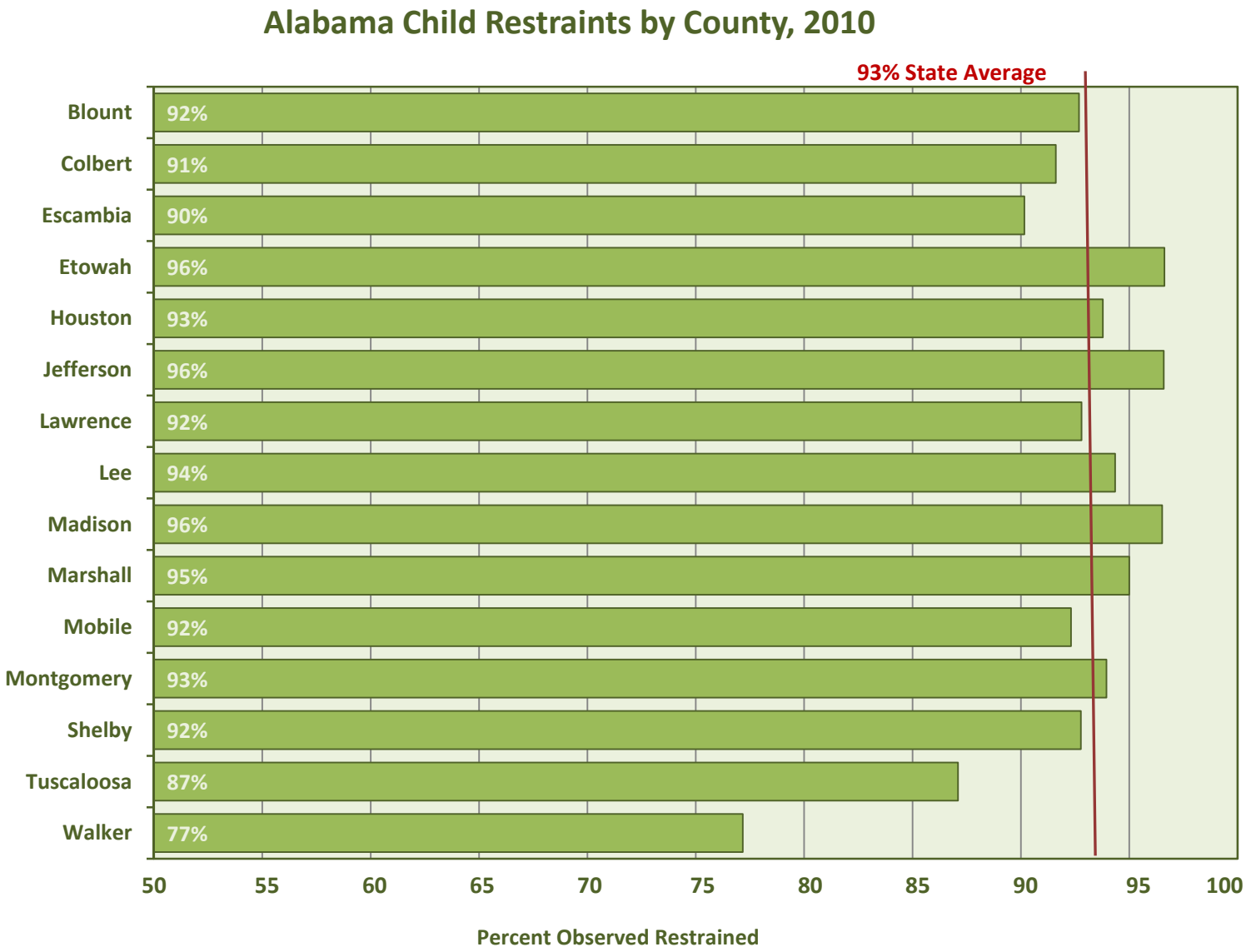

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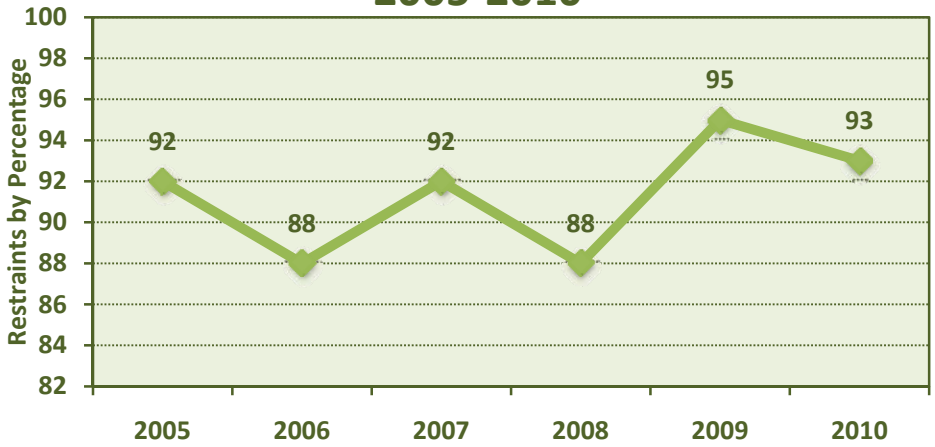
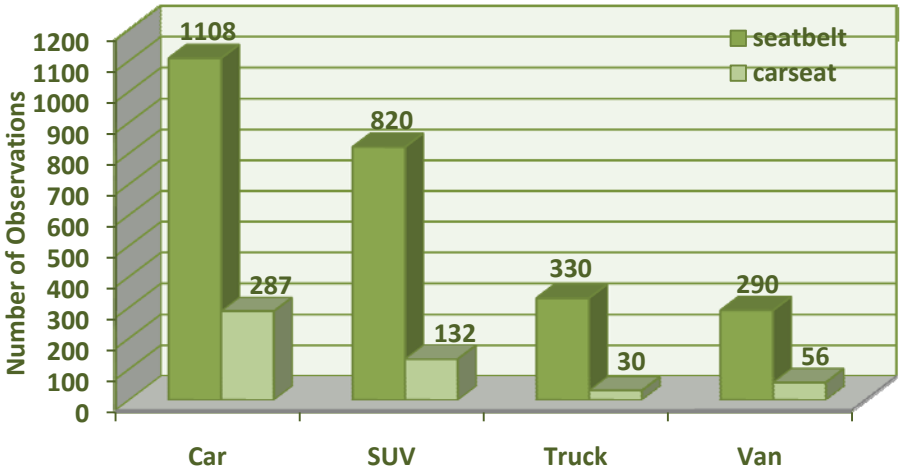
Child Restraint % Change by Year, 2005-2010



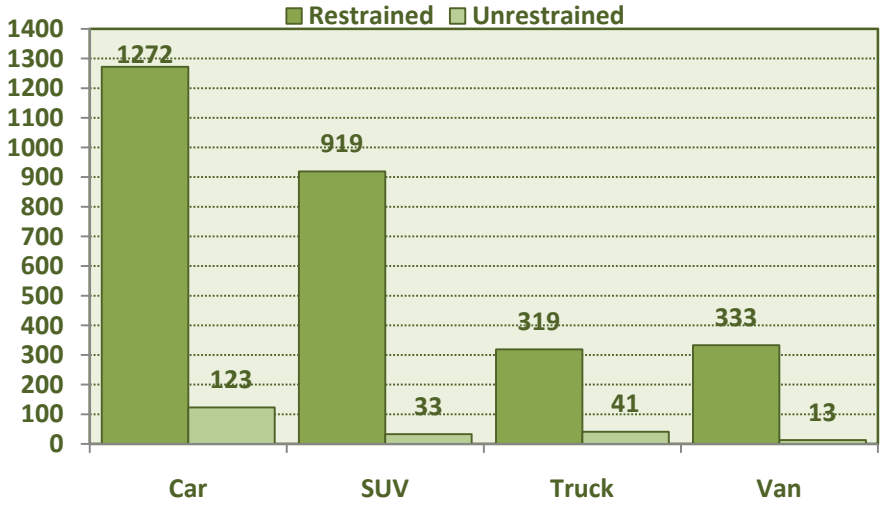
Child Restraint by Vehicle Type, 2010



Total Children Observed: 3053

*2 vehicles missing restraint data

Child Restraints by Vehicle Type, 2010



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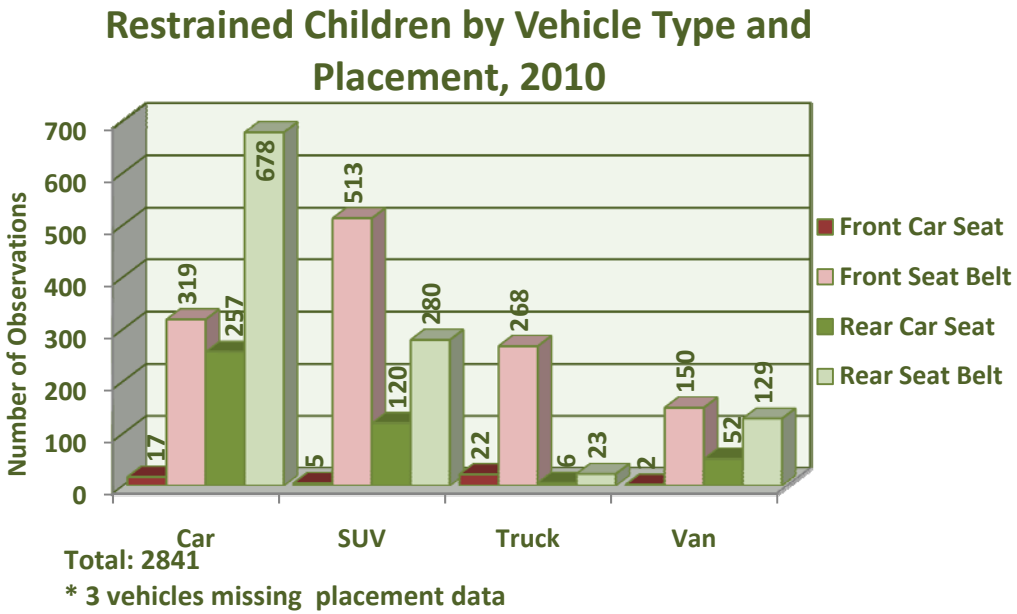

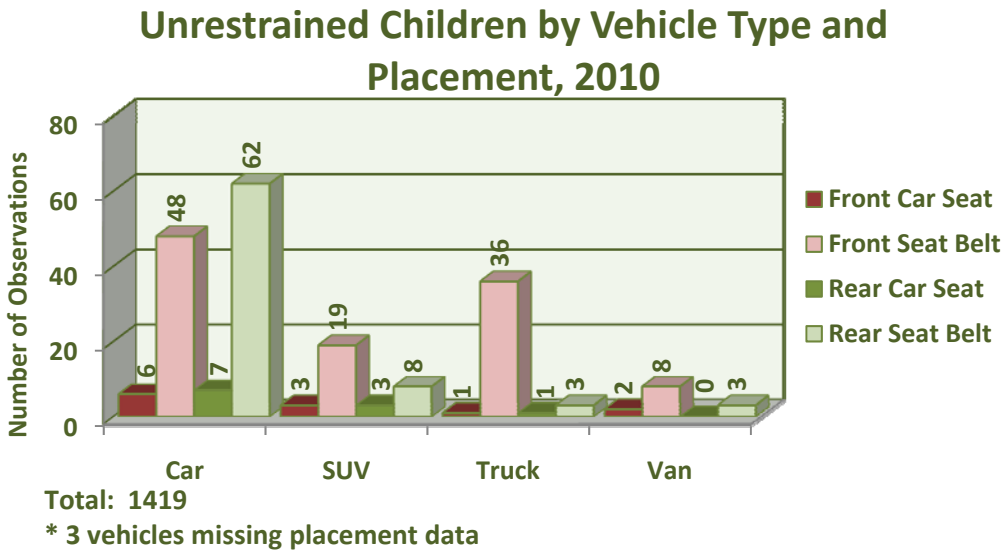

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