



# INFANT AND CHILD RESTRAINT USAGE REPORT 2013

October, 2013





## STUDY RESULTS

### Overall Results

This report calculates the use of child restraints (car seats and safety belts) in passenger vehicles in California during the summer of 2013. Visual observations were made at 140 different locations selected on the basis of geography and population, to be consistent with the NHTSA seat belt survey conducted for adults. Drivers and child passengers from infants to eight year old children were observed to determine proper restraint usage. Vehicles carrying children were observed at 140 sites on one specified date per site for a fifty minute period. This method yielded a total of 2,876 usable observations for the state. Of these 2,876 observations, 480 were infants and 2,396 were children.

#### Percent Properly Restrained

	2013
<b>Combined</b>	88.5%
<b>Infants (Up to 1 year)</b>	98.8%
<b>Children (1-8 years)</b>	86.5%

Overall, the combined percentage of infants and children properly restrained was significantly lower than the percentage of adults properly restrained in 2013 (97.4%). From the table above, it is clear that while Californians are doing a good job of properly restraining infants, properly restraining children between one and eight years old is occurring at a much lower rate.



## SAFETY CAMPAIGNS

### Appearing to Pay Dividends

The National Highway Traffic Safety Administration's (NHTSA) State Data System Analysis (Kindelberger and Starnes, 2003) reports that, since 1995, more children have been placed in the back seat, indicating positive effects of child safety outreach and awareness campaigns. Furthermore, infants and children placed in the front seat of vehicles are left unrestrained at a greater rate than their counterparts in the back seat (Pickrell and Ye, 2009). California observations during 2013 support the NHTSA findings. California infants and small children are less likely to be restrained in the front seat (93.5% restrained) than in the back seat (95.4% restrained).



### Results by County

County	Percent in 2012	Percent in 2013
Alameda	97.3%	99.3%
El Dorado	95.2%	81.3%
Fresno	92.0%	97.3%
Kern	79.2%	73.7%
Los Angeles	94.8%	76.7%
Mendocino	93.2%	92.3%
Merced	100.0%	89.5%
Monterey	76.5%	81.4%
Riverside	89.5%	99.6%
Sacramento	96.0%	90.4%
San Bernardino	97.7%	77.6%
San Diego	87.1%	77.0%
Shasta	95.3%	92.0%
Sonoma	87.6%	98.7%

As can be seen in the Results by County, there was significant variation in usage rates across the state. Los Angeles County had the lowest usage rates. This leads to the strongest finding of the infant and child restraint study.

The greatest variation in use of child restraints was found when considering whether or not the driver was belted. Infants and small children are more likely to be restrained properly when the driver is wearing a seatbelt (89.2%) than when the driver is not belted (58.1%). This finding is consistent with Pickrell and Ye's recent report (2009) on child restraint use notes that 92 percent of birth to seven year old children driven by buckled drivers were restrained, compared to 54 percent for children riding with unbelted drivers. In California, the pattern closely approximated the 2009 findings.

#### **Percent Properly Restrained by Driver Belted or Not**

	<b>Driver Belted</b>	<b>Driver Not Belted</b>
<b>Combined</b>	89.2%	58.1%
<b>Infants (Up to 1 year)</b>	98.7%	NA
<b>Children (1-8 years)</b>	87.2%	51.9%

The benefits of child restraint use continue to be substantial. The National Highway Traffic Safety Administration (NHTSA) notes that over the period 1975 through 2007, an estimated 8,709 lives were saved by child restraints (child safety seats and adult safety belts). Research on child safety seats has found them to reduce fatal injury by 71 percent for infants and by 54 percent for toddlers (1-4 years old) in passenger cars. These reductions are 58 percent and 59 percent, respectively, for infants and toddlers riding in pickup trucks (NHTSA, 2008).

The 2013 California child restraint study shows a very strong connection between driver seat belt use and the use of child passenger restraints, reconfirming the conclusions of earlier studies: education and public awareness of child restraint protections are strongly related.

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An additional possibility for variation in usage rates that was explored in this study was the type of vehicle being driven. Evidence in California suggests that pickup truck drivers have lower usage restraint usage rates than the drivers of other vehicles. Results in other states, suggest that this pattern holds for the use of infant and child restraints as well.

**Restraint Usage Rates by Vehicle Type for Infants and Children**

	Infants		Children	
	Properly Restrained	Not Properly Restrained	Properly Restrained	Not Properly Restrained
Automobiles	98.7% (N = 222)	1.3% (N= 3)	84.8% (N = 906)	15.2% (N = 163)
Vans/SUVs	98.6% (N = 219)	1.4% (N = 3)	90.6% (N = 1032)	9.4% (N = 107)
Pickup Trucks	100.0% (N= 33)	0.0% (N= 0)	71.8% (N = 135)	28.2% (N = 53)

As can be seen by the table above, vans/SUVs had higher usage rates overall than did automobiles or pickup trucks. This showed a decrease in usage for automobiles from 2012 to 2013. For the second year, pickup trucks were found to have significantly lower usage rates for children than the other vehicle types. This is consistent with national trends.

## RECOMMENDATIONS

2013 was the second year of the new infant and child survey. With only two years of data, significant trends are difficult to evaluate, but there are still a number of recommendations that can be derived from the current California survey and from similar surveys in other states. The main recommendations from this study are that California does the following:



- Continue to encourage and support *vigorous* enforcement of penalties for noncompliance with California's seat belt law;
- Collect county-level data on enforcement of the use of passenger belts and child restraint devices to document the relationship between enforcement and restraint use;
- Direct special attention (enforcement and education efforts) toward pickup truck drivers since the protection rate of child passengers riding in pickup trucks remains much lower than for any other kind of vehicle;
- Continue to develop and expand statewide public education and awareness programs using guidelines proposed by NHTSA, by encouraging the use of booster seats for older children, the placing infants and small children in the back seat of all vehicles, and the elimination of exemptions;
- Promote the use of child restraints in identified populations where the highest percentage of young children and their parents are located. This would likely include day care centers, doctor offices, hospitals, and faith-based organizations.
- Provide proper instructions for parents, grandparents, older siblings, and other care givers of infants and small children are especially important.