

2016 Restraint Use Rate Among Rear Seat Occupants of Passenger Vehicles in Illinois

Safety Belt Law in Illinois

Currently, the Illinois safety belt law requires all front and rear seat occupants to use safety belt or use child restraint. The first primary belt law became effective on July 3, 2003 and the second rear seat primary belt law went into effect on January 1, 2012. The main purpose of the rear seat safety belt law was to strengthen the original safety belt law that required occupants in the front seat and anyone under age 19 to wear safety belts. Under the current primary safety belt law in Illinois, police can stop vehicles if they notice front or rear seat occupants are not strapped in and issue citations.

For the last 31 years, Illinois has conducted annual observational surveys in order to estimate the overall safety belt usage rates among front seat occupants (drivers and front seat passengers), using a multi-stage probability sample. The current Illinois survey methodology is fully compliant with the Uniform Criteria for State Observational Surveys of Seat Belt Use. Based on the survey conducted in July, 2016, the estimated front seat occupant safety belt usage rate is **93.0**. This annual survey does not include rear seat occupants since it is not required for states to report the rear seat restraint use to the National Highway Traffic Safety Administration (NHTSA).

Rear Seat Survey

In October 2016, Illinois Department of Transportation (IDOT) conducted its fourth rear seat safety belt survey in order to estimate the safety belt usage rate among rear seat occupants of passenger vehicles (passenger cars, pickup trucks, SUVs, and van). The following materials provide a brief description of the survey design and findings.

Survey Design

The rear seat restraint use survey was conducted statewide during October 2016 on both high volume state highways and low volume local roads and residential streets. A total of **51** sites were selected randomly from the 288 original statewide sites to conduct safety belt use among the rear seat occupants. In order to observe the rear seat occupants, a few adjustments were made to the original statewide survey:

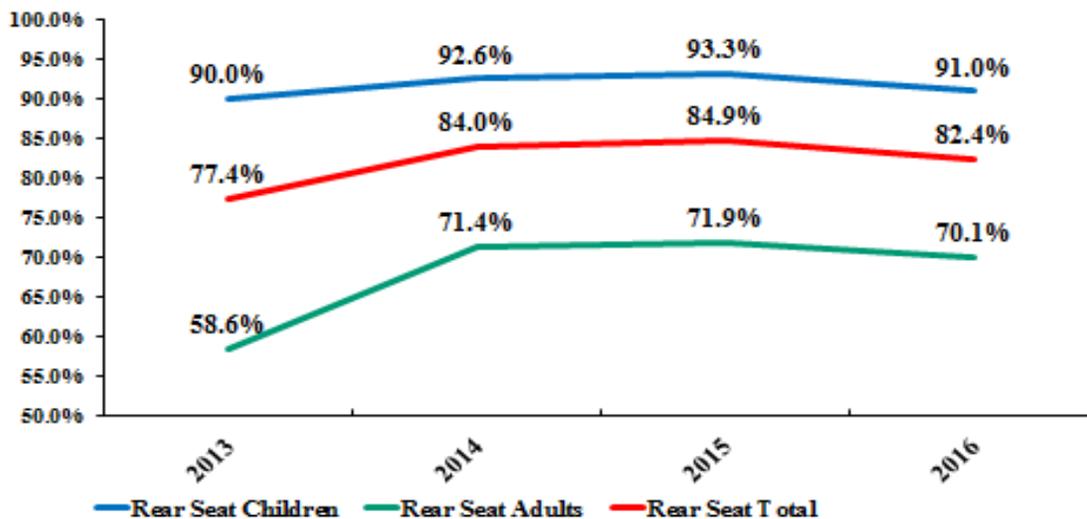
1. The survey sites were altered to closest intersections controlled by stop signs or stoplights or ramps in order for surveyors to observe the rear seat occupants restraint use.
2. The survey was conducted between 7:00 a.m. and 6:30 p.m. when the light was adequate to observe seat belt use through the vehicle windshield.
3. Surveyors conducted surveys for two hours per site instead of one hour in order to increase the sample size of vehicles transporting rear seat occupants.
4. Only stopped vehicles are observed to permit time to collect the variety of information including rear seat occupants and front seat occupants (drivers and front seat passengers).
5. The survey observations were restricted to those vehicles that transported rear seat occupants.
6. The rear seat occupants included children and adults.
7. Only the use of a shoulder harness was observed when vehicles passed an observation point.

8. Data were collected for both rear seat and front seat occupants of those vehicles that transported rear seat occupants.
9. The survey sites included interstate highways, freeways, county roads, state highways and a random sample of residential streets within selected areas.

Summary Results

Figure 1 shows rear seat occupant restraint use by occupant type (Children, Adults, and Total). Based on the first rear seat occupant survey conducted in 2013, the total restraint usage rate for rear seat occupants (Children and adults) was **77.4%**. During the first twelve months, the observed restraint usage rate increased by **6.6** percentage points to **84.0 %** from **77.4%** in 2013. In 2015, the usage rate peaked at **84.9%** and then it leveled off at **82.4%** in 2016. The main reason for the rear seat occupant usage rate increase over the past three years was due to a significant increase of the rear seat adult restraint usage rate by **11.5** percentage points from **58.6%** in 2013 to **70.1%** in 2016. As expected, the child restraint usage rate remained at over **90.0%** during the last four years.

Figure 1: Restraint Usage Rates Among Rear Seat Occupants in Illinois (2013-2016)



Data Source: Observational Survey

Additional Results on 2016 Survey

Table 1 provides additional data on all occupants and their safety belt use status by seating position. As shown in this table, there were a total of **2,906** vehicles that transported **3,422** rear seat occupants as well as **2,906** drivers and **1,322** front seat passengers. As we expected, the safety belt usage rate was significantly lower among the rear seat occupants than among the

front seat occupants. The overall usage rate for rear seat occupants was **82.4%** versus **91.9%** for drivers and **90.7%** for front seat passengers. In addition, among the rear seat occupants, children had significantly higher restraint usage rate than the adults (**91.0%** for children versus **70.1%** for adults).

The downstate counties (Bureau, Champaign, Effingham, Madison, Rock Island, and St. Clair) had the highest rear seat restraint use rate at **90.2%** followed by upstate counties (DuPage, Kane, Lake, McHenry, Will, and Winnebago) at **84.9%**. Cook County had a usage rate of **75.6%**. The city of Chicago had the lowest rate at **68.1%**.

	Drivers		Front Seat Passengers		Rear Seat Occupants (Children)		Rear Seat Occupants (Adults)		Total Rear Seat Occupants	
	Total Obs.	Belt Use	Total Obs.	Belt Use	Total Obs.	Belt Use	Total Obs.	Belt Use	Total Obs.	Belt Use
Total	2,906	91.9%	1,322	90.7%	2,013	91.0%	1,409	70.1%	3,422	82.4%
Chicago	396	85.6%	218	88.5%	246	72.4%	280	64.3%	526	68.1%
Cook	425	86.1%	180	83.9%	260	85.4%	236	64.8%	496	75.6%
Upstate ¹	1,264	92.7%	492	89.8%	955	94.0%	506	67.6%	1,461	84.9%
Downstate ²	821	96.6%	432	95.6%	552	96.7%	387	80.9%	939	90.2%

1. Upstate region includes the following counties: DuPage, Kane, Lake, McHenry and Winnebago
2. Downstate Region includes the following counties: Bureau, Champaign, Effingham, Madison, Rock Island, and St. Clair