

Seat Belt Usage in Illinois

June 2018 Observational Survey Results

Survey Design

The recent seat belt survey was a statistical (based on multi-stage random sample) observational survey conducted statewide during June 2018 on both high-volume state highways and low-volume local roads and residential streets. The survey design was based on the National Highway Traffic Safety Administration (NHTSA)'s Uniform Criteria for State Observational Surveys of Seat Belt Use. This plan is fully compliant with the Uniform Criteria and was used for the implementation of Illinois 2017 seat belt survey. The new plan had four characteristics.

1. The survey was conducted between 7:00 a.m. and 6:30 p.m. when the light was adequate for observation.
2. The survey observations were restricted to front seat occupants (drivers and passengers) of cars, sport utility vehicles, taxis, vans and pickup trucks.
3. Only the use of a shoulder harness was observed since vehicles passed an observation point without stopping.
4. The survey sites included interstate highways, freeways, county roads, state highways and a

random sample of residential streets within selected areas.

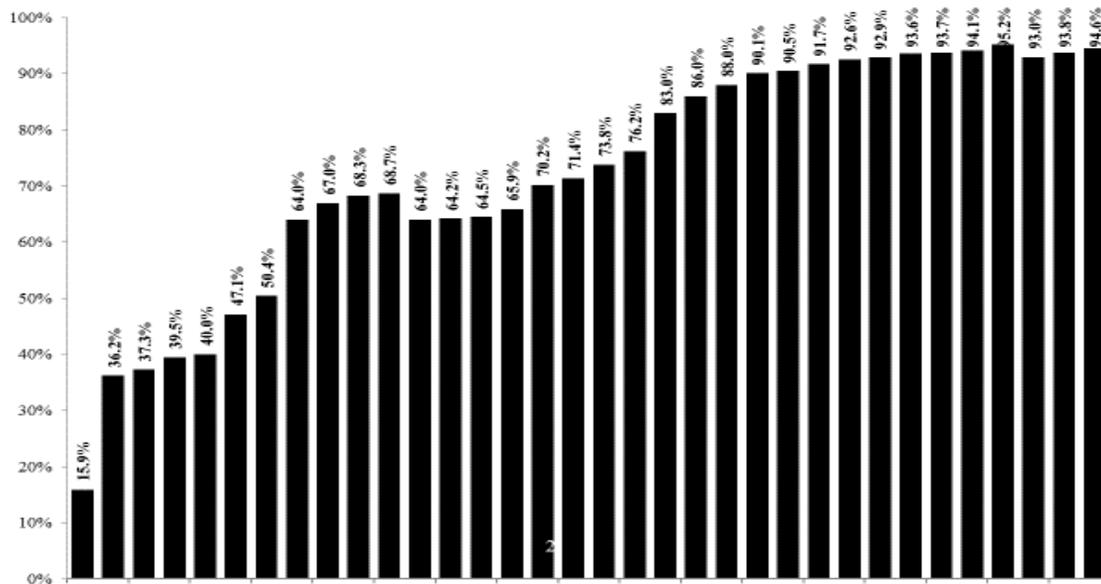
There were 153,844 front seat occupants observed during the June 2018 observational survey. The survey provided a statistically representative sample of the state as a whole. For more information on survey design, refer to "Seat Belt Use Survey Design for State of Illinois: Sampling, Data Collection and Estimation Plan", Bureau of Safety Programs and Engineering, Illinois Department of Transportation (IDOT), March 2018.

Historical Trends

Illinois' first seat belt survey was conducted in April 1985, prior to the seat belt law becoming effective on July 1st, 1985. The data from the first survey became a base from which to measure the success of Illinois' efforts to educate citizens about the benefits of using seat belts.

On July 3rd, 2003, the primary seat belt legislation was signed into law (Public Act 93-099) taking effect immediately. Under the primary belt law in Illinois, police officers can stop vehicles in which occupants fail to buckle up and issue citations.

Figure 1: Front Seat Occupant Restraint Usage Rate



Note: 1998 through 2018 surveys include pickup trucks, which tend to have lower usage rates.

The baseline (April 1985) occupant restraint usage rate for all front seat occupants (drivers and passengers) observed in Illinois was 15.9 percent. During the first twelve months after the seat belt law became effective, the observed usage rate increased to 36.2 percent. Since the first survey was conducted in April 1985, the seat belt usage rate has increased almost 79 percentage points. In June 2015, the seat belt usage rate peaked at 95.2 percent, but, in June 2018, it was slightly lower at 94.6 percent (see **Figure 1**).

Summary of Findings

Results of the seat belt survey conducted at 288 sites during June 2018 are summarized in **Table 1**. Column **(1)** shows the total number of front seat occupants observed. Column **(2)** shows the percentage of occupants who were observed wearing seat belts. The categories listed down the left side of the table indicate the various regions of the state where the survey was conducted (with the number of sites in each region in parenthesis), road type, and day of week.

A total of 153,844 occupants were observed during the survey. Of those, 94.6 percent were observed wearing seat belts. The seat belt usage rate for drivers was 95.1 percent. The seat belt usage rate for passengers was slightly lower at 92.0 percent.

Cook County (excluding the city of Chicago) had the highest usage rate at 95.5 percent, followed by the collar counties (DuPage, Kane, Lake, Winnebago, DeKalb, and Will) and the downstate counties (Champaign, Sangamon, Mclean, Vermilion, Rock Island, Madison and St. Clair) at 94.8 percent. The city of Chicago had the lowest safety belt usage rate at 88.7 percent.

Interstate highways had the highest usage rate at 95.7 percent followed by U.S./Illinois Highways at 95.3 percent. Residential streets had the lowest rate at 93.4 percent.

The seat belt usage rate on weekends was 92.9 percent, while on the weekdays it was 95.5 percent.

Table 1
Seat Belt Usage Rates in Illinois
(June 2018)

Selected Characteristics	Total Observed (1)	Estimated Usage Rate (2)
Statewide (288)	153,844	94.6%
Occupants		
Drivers	126,650	95.1%
Passengers	27,194	92.0%
Regions		
City of Chicago (35)	22,583	88.7%
Cook County (63)	37,930	95.5%
Collar Counties (120)	59,946	94.8%
Downstate (70)	33,385	94.8%
Road Type		
Residential (144)	41,192	93.4%
U.S./Illinois Highways (84)	40,090	95.3%
Interstate Highways (60)	72,562	95.7%
Day of Week		
Weekends (112)	61,022	92.9%
Weekdays (176)	92,822	95.5%

For more information, please contact:

Illinois Department of Transportation
Bureau of Safety Programs and Engineering
Evaluation Section
2300 North Dirksen Parkway
Springfield, Illinois 62764
(217) 782-3568
or TTY (217) 524-4875

2018 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 33 years, Illinois has conducted annual observational surveys 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 2018, the estimated front seat occupant safety belt usage rate was **94.6**. The 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 2018, Illinois Department of Transportation (IDOT) conducted its fifth rear seat safety belt survey 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:

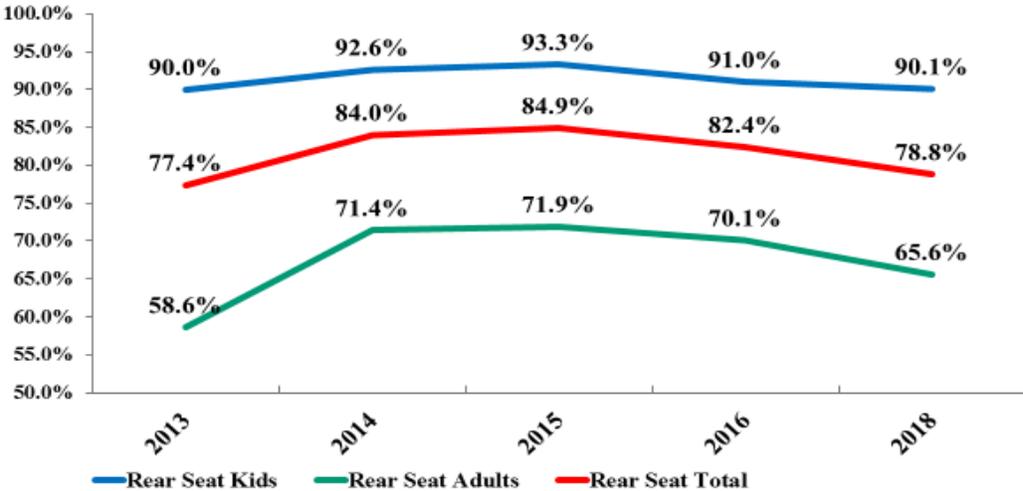
5. The survey sites were altered to closest intersections controlled by stop signs or stoplights or ramps in order for surveyors to observe the rear seat occupants restraint use.
6. The survey was conducted between 7:00 a.m. and 6:30 p.m. when the light was adequate to observe seat belt use through the vehicle windshield.
7. 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.
8. 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).
9. The survey observations were restricted to those vehicles that transported rear seat occupants.
10. The rear seat occupants included children and adults.
11. Only the use of a shoulder harness was observed when vehicles passed an observation point.
12. Data were collected for both rear seat and front seat occupants of those vehicles that transported rear seat occupants.

13. 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). During the last six years (IDOT didn't conduct a rear seat survey in 2017). 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%** and **78.8%** in 2016 and 2018 respectively. The main reason for the rear seat occupant usage rate increase over the past six years was due to a significant increase of the rear seat adult restraint usage rate by **7.0%** percentage points from **58.6%** in 2013 to **65.6%** in 2018 and level. As expected, the child restraint usage rate remained at over **90.0%** during the last six years.

Figure 1: Restraint Usage Rates Among Rear Seat Occupants in Illinois (2013-2018)



Data Source: Observational Survey

Additional Results on 2018 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 **1,816** vehicles that transported **2,092** rear seat occupants as well as **1,816** drivers and **818** 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 **78.8%** versus **91.8%** for drivers and **86.7%** for front seat passengers. In addition, among the rear seat occupants, children had significantly higher restraint usage rate than the adults (**90.1%** for children versus **65.6%** for adults).

The Upstate counties (DuPage, Kane, Lake, Will, and Winnebago) had the highest rear seat restraint use rate at **86.5%** followed by Cook County, excluding Chicago at **78.5%**. The

Downstate counties (Champaign, Mclean, Madison, Rock Island, Sangamon, St. Clair, and Vermilion) had a usage rate of **77.3%**. The city of Chicago had the lowest rate at **62.5%**.

Table 1: Safety Belt Use Among Occupants of Passenger Cars in Illinois in 2018 (Total Number of Vehicles Observed=1,816)										
	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	1,816	91.8%	818	86.7%	1,125	90.1%	967	65.6%	2,092	78.8%
Chicago	242	87.2%	143	82.5%	88	73.9%	211	57.8%	299	62.5%
Cook (Excluding Chicago)	159	96.2%	81	90.1%	76	97.4%	96	63.5%	172	78.5%
Upstate ¹	695	92.8%	232	88.8%	461	97.4%	326	71.2%	787	86.5%
Downstate ²	720	91.4%	362	86.2%	500	85.2%	334	65.6%	834	77.3%

1. Upstate region includes the following counties: DuPage, Kane, Lake, Will, and Winnebago

2. Downstate Region includes the following counties: Champaign, Mclean, Madison, Rock Island, Sangamon, St. Clair, and Vermilion.