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# **Seat Belt Usage in Illinois**

## **June 2018 Observational Survey Results**

Compiled and Prepared by

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# **Illinois Department of Transportation Bureau of Safety Programs and Engineering Evaluation Section**

The Evaluation Unit within the Bureau of Safety Programs and Engineering in the Illinois Department of Transportation focuses on evaluation and monitoring of various highway safety projects and programs in Illinois. The Evaluation Unit conducts research and analyses that enhance the safety and efficiency of transportation by understanding the human factors that are important to transportation programs in Illinois. The main functions of the Unit include the following:

1. Develop an in-depth analysis of motor vehicle related fatalities and injuries in Illinois using several crash related databases (Crash data, FARS, Trauma Registry, Hospital data, and state and local police data).
2. Develop measurable long term and short term goals and objectives for the Highway Safety Program in Illinois using historical crash related databases.
3. Evaluate each highway safety project with enforcement components (e.g., Local Alcohol Program and STEP projects) using crash and citation data provided by local and state police departments.
4. Evaluate several highway safety programs (e.g., Occupant Protection and Alcohol). This involves evaluating the effects of public policy and intervention programs that promote safe driving.
5. Design and conduct annual observational seat belt and child safety seat surveys for Illinois. The seat belt survey is based on a multi-stage random selection of Interstate Highways, US/IL Highways, and several local and residential streets.
6. Provide results of research and evaluation as well as annual enforcement activities to the National Highway Traffic Safety Administration (NHTSA) as part of the Federal Requirements of State Highway Safety Program in Illinois.
7. Provide statistical consultation to other Sections at the Division of Transportation Safety and other Divisions at IDOT.
8. Publish results of all research and evaluation at the Division and place them as PDF files at IDOT's Website.

**This report provides estimated seat belt usage rates in Illinois using a statistical (multi-stage random) observational survey conducted statewide during June 2017 on both high volume state highways and low volume local roads and residential streets in Illinois. In addition, the report provides seat belt usage rates by vehicle type (passenger car and pickup truck), region, road type, and day of week.**

The report was compiled and prepared by the Evaluation staff. Comments or questions may be addressed to Mehdi Nassirpour, Ph.D., Chief of Evaluation Section, Bureau of Safety Programs and Engineering, Illinois Department of Transportation, 2300 North Dirksen Parkway, Springfield, Illinois 62764.

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## Survey Design

The recent seat belt survey was a statistical (multi-stage random) 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 outboard passengers) of passenger cars (cars, sport utility vehicles, taxis, and 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 2016.

## Historical Trends

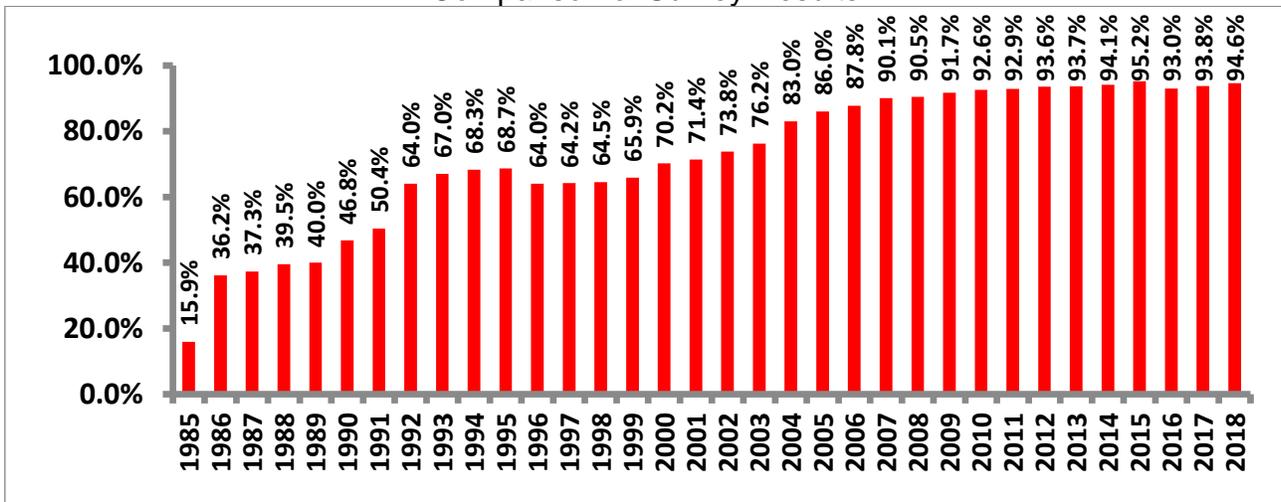
Currently the State of Illinois has a primary belt law, which became effective on July 3<sup>rd</sup>, 2003 after the bill was signed into the law. Under the primary belt law in Illinois, police officers can stop vehicles in which occupants fail to buckle up and issue citations.

The first Illinois seat belt law was passed in January 1985 and became effective July 1<sup>st</sup>, 1985. Originally, the seat belt law specified primary enforcement for front seat occupants of vehicles. Under this law, motor vehicle were required to be equipped with seat belts with the exception of those people frequently leaving their vehicles for deliveries if speed between stops was no more than 15 mph, medical excuses, rural letter carriers, vehicles operating in reverse, and vehicles

manufactured before 1965. In 1987, the original law was amended and became effective in January 1988 as a secondary enforcement law until July 3<sup>rd</sup>, 2003.

Illinois' first seat belt survey was conducted in April 1985, prior to the seat belt law becoming effective on July 1<sup>st</sup>, 1985. The data from the first survey became a baseline from which to measure the success of Illinois' efforts to educate citizens about the benefits of using seat belts. 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 first seat belt law became effective, the observed usage rate increased to 36.2 percent. Since that time, the usage rate has gradually increased, peaking in June 2015 at a level of 95.2 percent, but in June 2018, it was slightly lower at 94.6 percent. The seat belt usage rate in Illinois has increased almost 79 percentage points since the first survey was conducted in April 1985 (**see Figure 1**). It should be noted that the 1998 through 2017 seat belt surveys include pickup truck drivers and passengers who tend to have significantly lower usage rates than the front seat occupants of passenger cars.

**Figure 1**  
**Front Seat Occupant Restraint Usage Rate**  
Comparison of Survey Results



Note: 1998 through 2017 seat belt usage rates include pickup truck drivers and passengers.

## Summary of Findings

**Tables 1** shows results of the seat belt survey conducted at 288 sites during June 2018. Columns 1, 3 and 5 show the total number of observations for drivers, passengers and totals (drivers and passengers). Columns 2, 4 and 6 represent the estimated seat belt usage rates for drivers, passengers, and totals (drivers and passengers). The categories listed down the left side of the table indicate where the surveys were conducted by region of the state (with the number of sites in each region in parentheses), by road type, and by day of week. A total of 153,844 front seat occupants were observed during the survey. By looking at these tables, the seat usage rate patterns across selected categories for drivers are similar to that for passengers.

**Table 1** shows seat belt use for combined passenger cars and pickup trucks. Of the total of 153,844 front seat occupants observed, 94.6 percent were wearing seat belts. 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 2** compare seat belt usage rates from June 2017 to June 2018 and show percent changes among front seat occupants of passenger cars and pickup trucks. The table shows that the overall seat belt usage rate among drivers and front seat passengers increased by 0.8 of a percentage points from June 2017 to June 2018. By region, Cook County, excluding the city of Chicago had the largest increase in seat belt use from 2017 to 2018 of 2.4 percentage points while the downstate counties had an increase of 0.3 percentage points. The seat belt usage rate in the City of Chicago and collar counties decreased by 2.2 percentage points and 0.1 percentage point respectively. Based on road type, from 2017 to 2018, there was an increase in the seat belt usage rate on the residential roads, U.S./Illinois Highways and Interstate Highways by 1.9 percentage points, 1.3 percentage points, and 1.0% percentage point, respectively. Based on day of the week, the seat belt usage rate increased by 2.8 percentage points on the weekdays but, on the weekends, it did decrease by 1.8 percentage points.

**Table 1**  
**Overall Safety Belt Usage Rates in Illinois**  
**(June 2018)**

	Drivers		Passengers		Total	
	Total Observed	Estimated Usage Rate	Total Observed	Estimated Usage Rate	Total Observed	Estimated Usage Rate
	(1)	(2)	(3)	(4)	(5)	(6)
<b>Statewide (288)</b>	<b>126,650</b>	<b>95.1%</b>	<b>27,194</b>	<b>92.2%</b>	<b>153,844</b>	<b>94.6%</b>
<b>Regions</b>						
City of Chicago (35)	17,506	89.4%	5,077	86.3%	22,583	88.7%
Cook County (63)	31,516	95.9%	6,414	93.7%	37,930	95.5%
Collar Counties (120)	50,534	95.3%	9,412	92.3%	59,946	94.8%
Downstate (70)	27,094	95.6%	6,291	90.1%	33,385	94.8%
<b>Road Type</b>						
Residential (144)	34,095	94.1%	7,097	89.5%	41,192	93.4%
U.S./Illinois Highways (84)	33,512	95.8%	6,578	92.3%	40,090	95.3%
Interstate Highways (60)	59,043	96.1%	13,519	94.2%	72,562	95.7%
<b>Day of Week</b>						
Weekends (112)	48,116	93.4%	12,906	90.8%	92,822	92.9%
Weekdays (176)	78,534	95.9%	14,288	92.9%	61,022	95.5%

Note: Pickup trucks and passenger cars (cars, sport utility vehicles, taxicabs and vans) were included in this table.

**Table 2**  
**Overall Safety Belt Usage Rates in Illinois**  
**(Comparison of June 2017 and June 2018)**

	Drivers			Passengers			Total		
	Usage Rate (2017)	Usage Rate (2018)	Percent Change	Usage Rate (2017)	Usage Rate (2018)	Percent Change	Usage Rate (2017)	Usage Rate (2018)	Percent Change
<b>Statewide (288)</b>	<b>94.2%</b>	<b>95.1%</b>	<b>0.9%</b>	<b>92.2%</b>	<b>92.0</b>	<b>-0.2%</b>	<b>93.8%</b>	<b>94.6%</b>	<b>0.8%</b>
<b>Regions</b>									
City of Chicago (35)	91.7%	89.4%	-2.3%	88.0%	86.3%	-1.7%	90.9%	88.7%	-2.2%
Cook County (63)	93.3%	95.9%	2.6%	91.7%	93.7%	2.0%	93.1%	95.5%	2.4%
Collar Counties (120)	95.2%	95.3%	0.1%	93.4%	92.3%	-1.1%	94.9%	94.8%	-0.1%
Downstate (70)	94.6%	95.6%	1.0%	94.2%	90.1%	-4.1%	94.5%	94.8%	0.3%
<b>Road Type</b>									
Residential (144)	92.1%	94.1%	2.0%	88.1%	89.5%	1.4%	91.5%	93.4%	1.9%
U.S./Illinois Highways (84)	94.4%	95.8%	1.4%	91.7%	92.3%	0.6%	94.0%	95.3%	1.3%
Interstate Highways (60)	93.9%	96.1%	2.2%	94.2%	94.2%	0.0%	94.7%	95.7%	1.0%
<b>Day of Week</b>									
Weekends (112)	95.0%	93.4%	-1.6%	93.7%	90.8%	-2.9%	94.7%	92.9%	-1.8%
Weekdays (176)	93.3%	95.9%	2.6%	89.3%	92.9%	3.6%	92.7%	95.5%	2.8%

Note: Pickup trucks and passenger cars (cars, sport utility vehicles, taxicabs and vans) were included in this table.

