



**Illinois Department
of Transportation**

TECHNICAL REPORT

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Child Safety Seat Usage in Illinois

July/August 2014 Observational Survey Results

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Illinois Department of Transportation

Division of Traffic Safety

Evaluation Unit

The Evaluation Unit, within the Division of Traffic Safety 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., Sustained Traffic Enforcement Program & Local Alcohol Program) 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 safety belt and child safety seat surveys for Illinois. The safety 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 Traffic 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 a descriptive analysis of child safety seat usage in Illinois. The survey was an observational survey conducted statewide during July/August 2014 at selected survey locations which included day care centers, health care centers, McDonald's restaurants, and shopping malls. This survey provided a statistically representative sample of child safety seat usage in the state of Illinois.

The report was compiled and prepared by the Evaluation staff. Comments or questions may be addressed to Mehdi Nassirpour, Ph.D., Chief of Evaluation Unit, Bureau of Administrative Services, Division of Traffic Safety, Illinois Department of Transportation, 1340 North Grand Avenue East, Springfield, Illinois 62702.

TABLE OF CONTENTS

Executive Summary	1
Survey Design.....	3
Results of Child Safety Seat Survey in Illinois.....	4
Historical Trends of Child Safety Seat Use	9

LIST OF TABLES

TABLE 1.	2014 Child Safety Seat Usage Rate in Illinois	4
TABLE 2.	Frequency and Percentage Distributions of Selected Demographics for the 2014 Child Safety Seat Survey	5
TABLE 3.	Analysis of the 2014 Illinois Child Safety Seat Survey Child Restraint Status by Region	6
TABLE 4.	Analysis of the 2014 Illinois Child Safety Seat Survey Child Restraint Status by Location Type	7
TABLE 5.	Analysis of the 2014 Illinois Child Safety Seat Survey Child Restraint Status by Vehicle Type.....	7
TABLE 6.	Analysis of the 2014 Illinois Child Safety Seat Survey Child Restraint Status by Driver’s Gender	8
TABLE 7.	Analysis of the 2014 Illinois Child Safety Seat Survey Child Restraint Status by Driver’s Belt Status	8
TABLE 8.	Total Child Safety Seat Usage Rates in Illinois (2001-2014).....	11
TABLE 9.	Correct Child Safety Seat Usage Rates in Illinois (2006-2014).....	11
TABLE 10.	Child Safety Seat Usage Rates in Illinois by Selected Characteristics 2001-2014.....	12

LIST OF FIGURES

FIGURE 1. Total Child Safety Seat Usage Rates by Region in Illinois Across Selected Years.....	13
FIGURE 2. Total Child Safety Seat Usage Rates by Location Type in Illinois Across Selected Years.....	13
FIGURE 3. Total Child Safety Seat Usage Rates by Vehicle Type in Illinois Across Selected Years.....	14
FIGURE 4. Total Safety Seat Usage Rates by Driver's Gender in Illinois Across Selected Years.....	14
FIGURE 5. Total Safety Seat Usage Rates by Driver's Belt Status in Illinois Across Selected Years.....	15

Executive Summary

Using a multi-stage random sampling technique, a total of 2,935 children were observed in 2,162 passenger cars and pickup trucks in Illinois in 2014. There were a total of 119 randomly selected survey locations: 40 day care centers, 11 health care centers, 36 McDonald's restaurants, and 32 shopping malls within 12 selected counties. The counties were grouped into three different regions which included Cook County, the collar counties (DuPage, Kane, Lake, McHenry, and Will), and the downstate counties (Champaign, Macon, Montgomery, Peoria, Rock Island, and St. Clair).

It should be noted that in 2006, IDOT revised the definition of incorrect child restraint use. An incorrect child restraint use includes seat faces wrong way, harness loose or not used, retainer clip below armpit level, seat not secured, belt across face, and safety belt under arm. As result of this change, the correct restraint usage rate declined significantly. Therefore, comparing the current usage rates to the rates in previous years would not be valid. Here are the findings:

1. During July/August 2014, a total of 2,935 children were observed in 2,162 passenger cars, pickup trucks, and vans at selected day care centers, McDonald's restaurants, health care centers, and shopping malls across Illinois.
2. The total observed safety seat usage rate was 89.2 percent. When only including the observations where the safety seat was used properly, the usage rate drops to 54.7 percent.
3. The collar counties had the highest percentage of child restraint use at 92.3 percent. The child safety seat usage rate in the downstate counties and Cook County was 84.9 percent and 89.1 percent respectively. The collar counties had the highest percentage of properly restrained children at 64.3 percent. The percentage of properly restrained children in Cook County and downstate counties was 56.5 percent and 34.9 percent respectively.
4. Shopping malls had the highest percentage of children who were restrained at 93.4 percent. The child safety seat usage rate at day care centers was 89.5 percent. The child safety seat usage rate at McDonald's restaurants and health care centers was 84.4 percent and 89.4 percent respectively. Based on proper child safety seat use, shopping malls had the highest percentage of properly restrained children at 62.5 percent. The child safety seat usage rate at health care and McDonald's restaurants was 52.5 percent and 51.2 percent respectively. Day care centers had the lowest percentage of properly restrained children at 50.5 percent.
5. Vans had the highest percentage of children who were restrained and properly restrained at 91.3 percent and 57.9 percent respectively. In automobiles, the percentage of children who were restrained and properly restrained was 89.9 percent and 56.1 percent respectively. The child safety seat usage rate for pickup trucks was 77.0 percent. When excluding incorrect use, the child safety seat usage rate in pickup trucks was 33.7 percent.
6. When a female was driving, 90 percent of children (90.1 percent) were restrained and 54.6 percent of children were properly restrained. When a male was driving, 87.9 percent of children were restrained and only 57.2 percent of children were properly restrained.
7. When a driver was wearing their safety belt, almost 94.2 percent of children were restrained. When excluding incorrect use, only 60.8 percent of these children were properly restrained. On the other hand, unbelted drivers tend to have significantly lower child restraint usage

rates than belted drivers. When a driver was not wearing their safety belt, only 48.2 percent of children were restrained. When excluding incorrect use, only 11.9 percent of these children were properly restrained.

8. The total usage rate from 2001 thru 2014 increased significantly by 11.2 percentage points from 78.0 percent in 2001 to 89.2 percent in 2014. The rate of increase ranges from 9.9 percent for vehicle with one child to 25.2 percent for vehicles with three children.
9. Since IDOT revised the definition of correct child safety seat use in 2006, it would not be valid to compare the usage rate during the current years (2006-2014) to the years prior to 2006. The correct usage rate of restrained children increased by 0.8 percentage points from 53.9 percent in 2006 to 54.7 percent in 2014.

Observational Survey

Using a multi-stage random sampling technique, a total of 2,935 children were observed in 2,162 passenger cars and pickup trucks in Illinois in 2014. There were a total of 119 randomly selected survey locations: 40 day care centers, 11 health care centers, 36 McDonald's restaurants, and 32 shopping malls within 12 selected counties. The counties were grouped into three different regions which included Cook County, the collar counties (DuPage, Kane, Lake, McHenry, and Will), and the downstate counties (Champaign, Macon, Montgomery, Peoria, Rock Island, and St. Clair). The survey design had four characteristics:

1. The survey was conducted between 6:30 a.m. and 6:00 p.m. when the light was adequate for observation.
2. The survey was restricted to a total of 30 observations or an hour of observation per site.
3. The survey was conducted at the exit/entrance of selected locations.
4. The survey included the following common misuses of child safety seats:
 - seat faces wrong way,
 - harness loose or not used,
 - retainer clip below armpit level,
 - seat not secured,
 - belt across face, and
 - safety belt under arm.

It should be noted that in 2006, IDOT revised the definition of an incorrect child restraint use. As result of this change, the correct restraint usage rate declined significantly. Therefore comparing the current usage rates to the rates prior to 2006 would not be valid.

For more information on the design of the survey refer to "Design of the Child Safety Seat Survey", Division of Traffic Safety, Illinois Department of Transportation (IDOT), June 1996.

Results of Child Safety Seat Survey in Illinois

Tables 1 through 7 provide descriptive information on the child safety seat usage rate and its correlates, such as gender of driver, belt status of driver, location type, region, and vehicle type in 2014.

Table 1 shows that the overall child restraint usage rate in Illinois is 89.2 percent. After excluding total number of observations in which the child restraint is used incorrectly, the usage rate is reduced to 54.7 percent. As was expected, child safety restraint usage rates are inversely related to the number of children in the car. It is likely to see usage rates decrease as the number of children in the vehicle increase. The usage rate and correct usage rate for Child 1 are 90.9 percent and 56.4 percent respectively. On the other hand, these percentages are lower for Child 3 at 76.3 percent and 43.3 percent respectively.

Table 1: 2014 Child Safety Seat Usage Rate in Illinois

Seating Position	No Restraint	Incorrect Use	Correct Use	Total Observed	Usage Rate Total	Usage Rate (excludes incorrect use)
Child 1	197	745	1,219	2,161	90.9%	56.4%
Child 2	92	234	340	666	86.2%	51.1%
Child 3	23	32	42	97	76.3%	43.3%
Child 4	4	2	5	11	63.6%	45.5%
Total	316	1,013	1,606	2,935	89.2%	54.7%

Note: Common misuses of child safety seats include seat faces wrong way, harness loose or not used, retainer clip below armpit level, seat not secured, belt across face, and safety belt under arm.

Table 2 presents frequency and percentage distributions for selected demographics, including type of vehicle, driver's gender, driver's belt status, and total vehicles observed by site type. As expected, the largest percentage of vehicles observed were automobiles (75.4 percent). The percentage of vans and trucks observed were 18.0 percent and 6.6 percent respectively. Based on driver's gender, 61.8 percent of the drivers observed were female, while only 38.2 percent of the observations were male. Based on driver's belt status, 90.8 percent of drivers were observed wearing their seat belts, while the remaining 9.2 percent were unbelted. Based on location type, the largest percentage of vehicles was observed at shopping malls (34.1 percent). More than 27 percent of the vehicles were observed at McDonald's restaurants and 30.7

percent were observed at day care centers. The smallest percentage of vehicles was observed at health care centers (8.1 percent).

Table 2: Frequency and Percentage Distributions of Selected Demographics for the 2014 Child Safety Seat Survey

Type of Vehicle		
	Frequency	Percentage
Automobile	1,610	75.4%
Truck	140	6.6%
Van	385	18.0%
TOTAL	2,135	100.0%
Driver's Gender		
	Frequency	Percentage
Female	1,305	61.8%
Male	806	38.2%
TOTAL	2,111	100.0%
Driver's Belt Status		
	Frequency	Percentage
Belted	1,888	90.8%
Not Belted	191	9.2%
TOTAL	2,079	100.0%
Total Vehicles Observed by Location Type		
	Frequency	Percentage
Daycare	663	30.7%
Health Center	176	8.1%
McDonald's	585	27.1%
Shopping Mall	738	34.1%
TOTAL	2,162	100.0%
TOTAL	2,162	100.0%

*Note: The Totals are different for each demographic due to missing values. Due to rounding error, percentages may not equal 100 percent.

Table 3 shows frequency and percentage distributions of child restraint use by selected regions of Illinois (collar counties, Cook County, and downstate counties). The collar counties had the highest percentage of child restraint use at 92.3 percent. The child safety seat usage rate in the downstate counties and Cook County was 84.9 percent and 89.1 percent respectively. The Collar Counties had the highest percentage of properly restrained children at 64.3 percent. The percentage of properly restrained children in Cook County was 56.5 percent. The downstate counties had the lowest percentage of properly restrained children at 34.9 percent.

**Table 3: Analysis of the 2014 Child Safety Seat Survey
Child Restraint Status by Region**

Child Restraint Status	Region						Totals	
	Collar Counties**		Cook County		Downstate Counties***			
	N	%	N	%	N	%	N	%
Properly Restrained	520	64.3%	899	56.5%	187	34.9%	1,606	54.7%
Incorrectly Restrained	227	28.1%	518	32.6%	268	50.0%	1,013	34.5%
Total Restrained*	747	92.3%	1,417	89.1%	455	84.9%	2,619	89.2%
Not Restrained	62	7.7%	173	10.9%	81	15.1%	316	10.8%
<i>Column Totals</i>	809	100.0%	1,590	100.0%	536	100.0%	2,935	100.0%

* The row 'Total Restrained' is the sum of the cases from the rows 'Properly Restrained' and 'Incorrectly Restrained'

** The collar counties are comprised of DuPage, Kane, Lake, McHenry, & Will

*** The downstate counties are comprised of Champaign, Macon, Montgomery, Peoria, Rock Island, & St. Clair

Table 4 provides information on child restraint usage rates by location type. The location types included day care centers, health care centers, McDonald's restaurants, and shopping malls. Shopping malls had the highest percentage of children who were restrained at 93.4 percent. The child safety seat usage rate at day care centers was 89.5 percent. The child safety seat usage rate at health care centers and McDonald's restaurants was 89.4 percent and 84.4 percent respectively. Based on proper child safety seat use, shopping malls had the highest percentage of properly restrained children at 62.5 percent. The percentage of properly restrained children at health care centers and McDonald's restaurants was 52.5 percent and 51.2 percent respectively. Day care centers had the lowest percentage of properly restrained children at 50.5 percent.

**Table 4: Analysis of the 2014 Child Safety Seat Survey
Child Restraint Status by Location Type**

Child Restraint Status	Location Type								Totals	
	Day Care Center		Health Care Center		McDonald's		Shopping Mall			
	N	%	N	%	N	%	N	%	N	%
Properly Restrained	450	50.5%	124	52.5%	443	51.2%	589	62.5%	1606	54.7%
Incorrectly Restrained	347	38.9%	87	36.9%	287	33.2%	292	31.0%	1013	34.5%
Total Restrained*	797	89.5%	211	89.4%	730	84.4%	881	93.4%	2619	89.2%
Not Restrained	94	10.5%	25	10.6%	135	15.6%	62	6.6%	316	10.8%
<i>Column Totals</i>	891	100.0%	236	100.0%	865	100.0%	943	100.0%	2935	100.0%

* The row 'Total Restrained' is the sum of the cases from the rows 'Properly Restrained' and 'Incorrectly Restrained'

Table 5 shows child restraint use by vehicle type, including automobiles, pickup trucks, and vans. Vans had the highest percentage of children who were restrained and properly restrained at 91.3 percent and 57.9 percent respectively. Slightly less than 90 percent of children in automobiles were restrained. When excluding incorrect use, the child safety seat usage rate in automobiles was 56.1 percent. The child safety seat usage rate for pickup trucks was 77.0 percent. When excluding incorrect use, the child safety seat usage rate in pickup trucks was 33.7 percent.

**Table 5: Analysis of the 2014 Child Safety Seat Survey
Child Restraint Status by Vehicle Type**

Child Restraint Status	Vehicle Type						Totals**	
	Automobile		Truck		Van			
	N	%	N	%	N	%	N	%
Properly Restrained	1187	56.1%	60	33.7%	352	57.9%	1599	55.1%
Incorrectly Restrained	714	33.8%	77	43.3%	203	33.4%	994	34.3%
Total Restrained*	1901	89.9%	137	77.0%	555	91.3%	2593	89.4%
Not Restrained	213	10.1%	41	23.0%	53	8.7%	307	10.6%
<i>Column Totals</i>	2114	100.0%	178	100.0%	608	100.0%	2900	100.0%

* The row 'Total Restrained' is the sum of the cases from the rows 'Properly Restrained' and 'Incorrectly Restrained'

** The total does not equal 2935 cases due to missing data.

Table 6 shows that male and female drivers have similar child safety seat usage rates. When a female was driving, 90 percent of children (90.1 percent) were restrained and only 54.6 percent of children were properly restrained. When a male was driving, only 87.9 percent of children were restrained and only 57.2 percent of children were properly restrained.

**Table 6: Analysis of the 2014 Child Safety Seat Survey
Child Restraint Status by Driver's Gender**

Child Restraint Status	Driver's Gender				Totals**	
	Male		Female			
	N	%	N	%	N	%
Properly Restrained	607	57.2%	980	54.6%	1587	55.6%
Incorrectly Restrained	326	30.7%	638	35.5%	964	33.8%
Total Restrained*	933	87.9%	1618	90.1%	2551	89.3%
Not Restrained	128	12.1%	177	9.9%	305	10.7%
<i>Column Totals</i>	1061	100.0%	1795	100.0%	2856	100.0%

* The row 'Total Restrained' is the sum of the cases from the rows 'Properly Restrained' and 'Incorrectly Restrained'

** The total does not equal 2935 cases due to missing data.

Table 7 shows frequency and percentage distributions of child restraint use by driver's belt status. As indicated earlier (see **Table 2**), over 90 percent of all drivers observed with children in their vehicles were wearing their safety belts (1,888 belted drivers divided by 2,079 total observations multiplied by 100 percent). Belted drivers have significantly higher child safety seat usage rates and proper child safety seat usage rates than unbelted drivers. When a driver was wearing their safety belt, over 94 percent of children were restrained. When excluding incorrect use, only 60.8 percent of these children were properly restrained. On the other hand, unbelted drivers tend to have significantly lower child restraint usage rates than belted drivers. When a driver was not wearing their safety belt, only 48.2 percent of children were restrained. When excluding incorrect use, only 11.9 percent of these children were properly restrained.

**Table 7: Analysis of the 2014 Child Safety Seat Survey
Child Restraint Status by Driver's Belt Status**

Child Restraint Status	Driver's Belt Status				Totals**	
	Driver Belted		Driver Unbelted			
	N	%	N	%	N	%
Properly Restrained	1522	60.8%	36	11.9%	1558	55.5%
Incorrectly Restrained	837	33.4%	110	36.3%	947	33.7%
Total Restrained*	2359	94.2%	146	48.2%	2505	89.2%
Not Restrained	145	5.8%	157	51.8%	302	10.8%
<i>Column Totals</i>	2504	100.0%	303	100.0%	2807	100.0%

* The row 'Total Restrained' is the sum of the cases from the rows 'Properly Restrained' and 'Incorrectly Restrained'

** The total does not equal 2935 cases due to missing data.

Historical Trends of Child Safety Seat Use

Tables 8 and 9 show historical trends on child safety usage rates. **Table 8** provides information about total child restraint usage rates for 2001 thru 2014. As shown in this table, the total usage rate increased significantly by 11.2 percentage points from 78.0 percent in 2001 to 89.2 percent in 2014. The rate of increase ranges from 9.5 percent for vehicle with one child to 72.7 percent for vehicles with four children. In 2010, the total usage rate peaked at 92.8 percent.

Table 9 provides information about the correct usage rate of restrained children for only 2006 thru 2014 eliminating years prior to 2006. As indicated earlier, since IDOT revised the definition of correct child safety seat use in 2006, it would be incorrect to compare the usage rate during the current years (2006-2014) to the years prior to 2006. As shown in this table, the correct usage rate of restrained children increased by 0.8 percentage points from 53.9 percent in 2006 to 54.7 percent in 2014. The correct usage rate increased from 50.2 percent in 2013 to 54.7 percent in 2014.

Table 10 shows comparative analyses of child safety seat usage rates for 2001 through 2012. The data was analyzed by selected demographics including region, location, vehicle type, driver's gender, and driver's belt status. The information in **Table 10** is displayed in graphic presentations of child safety seat usage rates by selected demographics in **Figures 1 through 5**. The percent change in **Table 10** is calculated by subtracting the 2001 usage rates from the 2011 usage rates.

Figure 1 shows the total usage rate of restrained children by the selected regions in Illinois. From 2001 to 2010, all regions noticed increases in child safety seat use. From 2010 to 2014, there was a slight decrease in the usage rate across the different regions. The child safety seat usage rate in the collar counties increased from 71.5 percent in 2001 to 92.3 percent in 2014. In the downstate counties, the child safety seat usage rates increased from 77.2 percent in 2001 to 84.9 percent in 2014. In Cook County, the child safety seat usage rate increased from 81.2 percent in 2001 to 84.9 percent in 2014.

Figure 2 shows the total child safety seat usage rate by location type in Illinois. From 2001 to 2010, the total usage rate of restrained children increased at all location types. From 2010 to 2014, there was a slight decrease in the usage rates across all location types. The total usage

rate at McDonald's increased from 67.6 percent in 2001 to 84.4 percent in 2014. The total usage rate at health care centers increased from 74.3 percent in 2001 to 89.4 percent in 2014. The total usage rate for shopping malls increased from 81.8 percent in 2001 to 93.4 percent in 2014. The total usage rate at day care centers increased from 83.7 percent in 2001 to 89.5 percent in 2014.

Figure 3 shows the total usage rate of restrained children by vehicle type in Illinois. From 2001 to 2014, the total usage rate increased in automobiles and vans. While the total usage rate increased in pickup trucks from 2001 through 2010, from 2010 through 2014, the usage rates in pickup trucks has fluctuated greatly. In automobiles, the total usage rate of restrained children increased by 13.9 percentage points (an increase from 76.0 percent in 2001 to 89.9 percent in 2014). In vans, the total usage rate of restrained children increased from 82.0 percent in 2001 to 91.3 percent in 2014. In pickup trucks, the total usage rate of restrained children decreased by 3.8 percentage points (from 80.8 percent in 2001 to 77.0 percent in 2014). From 2011 through 2014, due to significantly low observations of pickup trucks, the total usage rate of restrained children has fluctuated greatly.

Figure 4 shows the total usage rate of restrained children by driver's gender in Illinois. From 2001 to 2014, the total usage rate of restrained children for male drivers increased by 14.4 percentage points and for female drivers it increased by 9.7 percentage points.

Figure 5 shows the total usage rate of restrained children by the driver's belt status across selected years in Illinois. As was expected, the usage rates of child seats were significantly higher for belted drivers than for unbelted drivers. The child safety seat usage rate for belted drivers slightly increased by 3.0 percentage points from 2001 through 2014. The total child safety seat usage rate for unbelted drivers gradually has fluctuated over the years. In 2001, it was 51.8 percent, but, in 2014, it decreased slightly to 48.2 percent. The usage rates for unbelted drivers should be approached with caution due to the low number of observations of vehicles with unbelted drivers.

TABLE 8
Total Child Safety Seat Usage Rates in Illinois
(2001-2014)

Child Number	Total Usage Rate of Restrained Children												Percent Change* (2001-2014)
	Total Use (2001)	Total Use (2003)	Total Use (2005)	Total Use (2006)	Total Use (2007)	Total Use (2008)	Total Use (2009)	Total Use (2010)	Total Use (2011)	Total Use (2012)	Total Use (2013)	Total Use (2014)	
Statewide	78.0%	83.0%	87.7%	85.4%	87.2%	87.7%	90.7%	92.8%	90.2%	90.5%	86.5%	89.2%	11.2%
Child #													
Child 1	81.0%	85.3%	89.4%	87.4%	88.8%	90.5%	92.1%	93.1%	90.5%	91.5%	87.9%	90.9%	9.9%
Child 2	74.5%	80.0%	85.3%	79.7%	84.2%	84.7%	88.3%	93.1%	89.9%	89.7%	86.0%	86.2%	11.7%
Child 3	51.1%	64.9%	75.0%	76.5%	75.8%	63.0%	78.4%	82.8%	83.9%	76.3%	80.2%	76.3%	25.2%
Child 4	27.3%	50.0%	60.0%	72.7%	60.0%	50.0%	45.5%	71.4%	100.0%	53.8%	33.3%	63.6%	36.3%

* Percent change was calculated by subtracting the 2001 Total Usage Rate from the 2014 Total Usage Rate.

TABLE 9
Correct Child Safety Seat Usage Rates in Illinois
(2006-2014)

Child Number	Correct Usage Rate of Restrained Children (excludes Incorrect Use)										Percent Change* (2006-2014)
	Proper Use (2006)	Proper Use (2007)	Proper Use (2008)	Proper Use (2009)	Proper Use (2010)	Proper Use (2011)	Proper Use (2012)	Proper Use (2013)	Proper Use (2014)		
Statewide	53.9%	53.6%	56.4%	47.7%	44.9%	48.2%	59.5%	50.2%	54.7%	0.8%	
Child #											
Child 1	55.3%	54.2%	56.9%	47.7%	43.5%	48.4%	60.4%	50.8%	56.4%	1.1%	
Child 2	51.7%	54.1%	58.6%	50.0%	52.6%	48.8%	58.3%	50.6%	51.1%	-0.6%	
Child 3	38.3%	37.4%	38.0%	35.2%	20.4%	41.1%	47.5%	47.0%	43.3%	5.0%	
Child 4	36.4%	33.3%	32.1%	0.0%	0.0%	0.0%	38.5%	23.8%	45.5%	9.1%	

* Percent change was calculated by subtracting the 2006 Proper Usage Rate from the 2014 Proper Usage Rate.

Table 10
Child Safety Seat Usage in Illinois
by Selected Characteristics
(2001-2014)

	Total Usage Rate of Restrained Children												
	Usage Rate	Usage Rate	Usage Rate	Usage Rate	Usage Rate	Usage Rate	Usage Rate	Usage Rate	Usage Rate	Usage Rate	Usage Rate	Usage Rate	Percent Change*
	2001	2003	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Statewide	78.0%	83.0%	87.7%	85.4%	87.2%	87.7%	90.7%	92.8%	90.2%	90.5%	86.5%	89.2%	11.2%
Region													
Cook County	81.2%	85.2%	90.3%	82.4%	84.1%	85.2%	90.6%	90.9%	87.9%	88.8%	88.2%	89.1%	7.9%
Collar Counties	71.5%	82.4%	87.3%	88.0%	93.4%	94.4%	93.5%	96.9%	94.1%	96.2%	88.6%	92.3%	20.8%
Downstate Counties	77.2%	78.9%	81.5%	86.7%	86.9%	85.5%	87.3%	90.4%	91.1%	85.7%	79.7%	84.9%	7.7%
Location													
Day Care Center	83.7%	87.0%	94.1%	85.5%	86.6%	88.4%	89.5%	90.7%	90.6%	89.6%	85.6%	89.5%	5.8%
Health Center	74.3%	79.2%	84.2%	82.5%	90.7%	88.3%	85.2%	92.8%	90.8%	88.9%	81.9%	89.4%	15.1%
McDonald's	67.6%	79.2%	83.9%	80.1%	83.1%	83.5%	87.9%	90.6%	85.6%	87.7%	82.4%	84.4%	16.8%
Shopping Mall	81.8%	83.2%	86.6%	89.4%	90.7%	90.7%	94.8%	96.2%	93.2%	93.6%	90.7%	93.4%	11.6%
Vehicle Type													
Automobile	76.0%	82.9%	88.0%	84.6%	87.2%	86.8%	90.5%	92.8%	91.2%	90.5%	84.2%	89.9%	13.9%
Truck	80.8%	75.7%	87.1%	79.4%	79.4%	84.2%	88.2%	90.9%	65.7%	81.0%	89.1%	77.0%	-3.8%
Van	82.0%	85.4%	92.2%	88.8%	88.6%	92.3%	93.0%	94.5%	91.2%	93.5%	92.3%	91.3%	9.3%
Gender													
Male	73.5%	81.8%	86.3%	80.0%	86.4%	85.9%	90.5%	92.2%	87.3%	88.1%	84.0%	87.9%	14.4%
Female	80.4%	83.7%	88.6%	87.6%	87.6%	88.7%	90.9%	93.1%	91.7%	91.6%	87.3%	90.1%	9.7%
Driver's Belt Status													
Belted	91.2%	94.0%	95.9%	91.6%	92.2%	92.7%	95.1%	94.6%	94.3%	94.7%	91.8%	94.2%	3.0%
Unbelted	51.8%	57.1%	62.6%	62.4%	68.1%	66.8%	65.7%	81.9%	56.0%	55.3%	62.7%	48.2%	-3.6%

* Percent change is calculated by subtracted the 2001 usage rates from the 2014 usage rates.

Figure 1: Total Child Safety Seat Usage Rates by Region in Illinois Across Selected Years

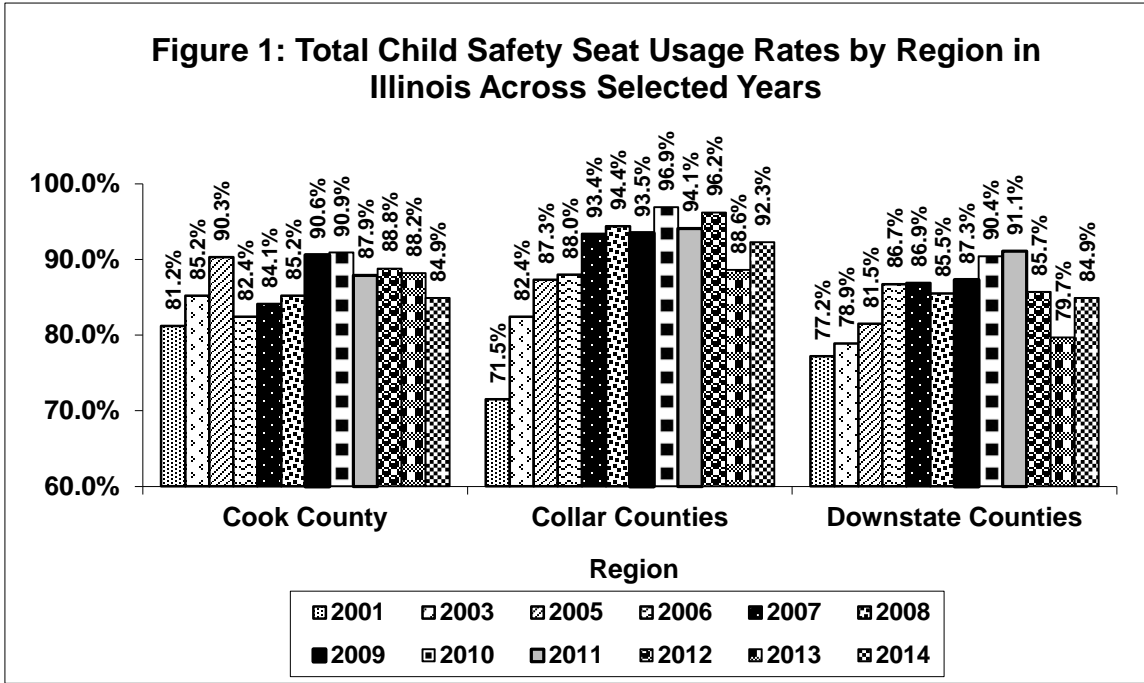


Figure 2: Total Child Safety Seat Usage Rates by Location Type in Illinois Across Selected Years

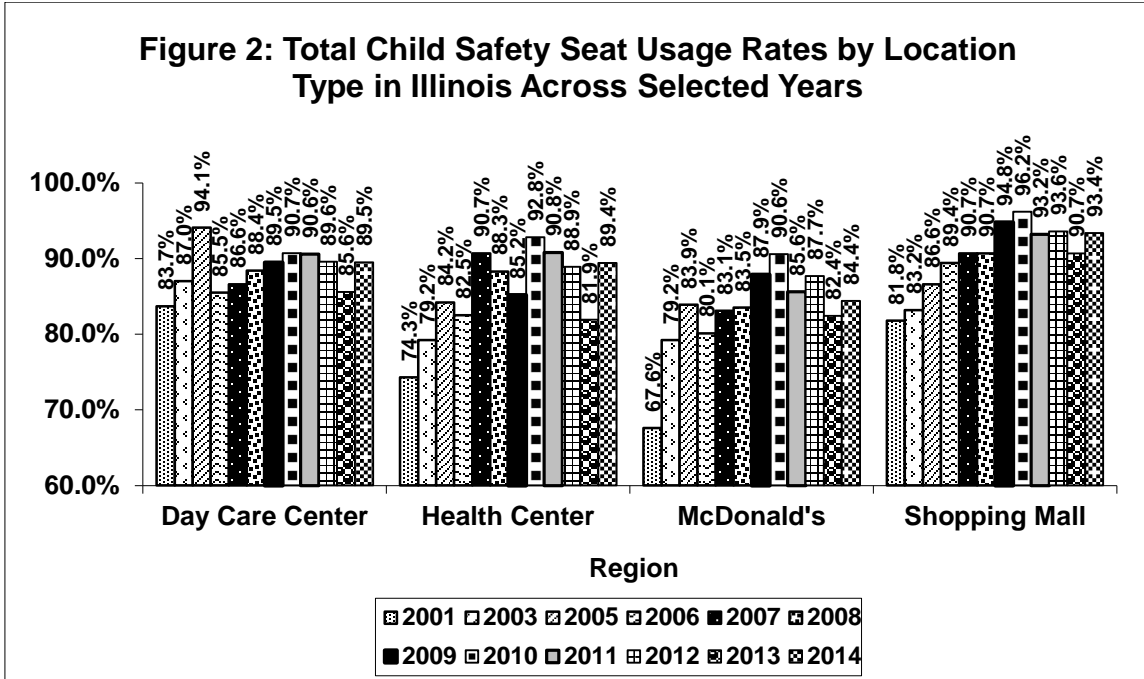


Figure 3: Total Child Safety Seat Usage Rates by Vehicle Type in Illinois Across Selected Years

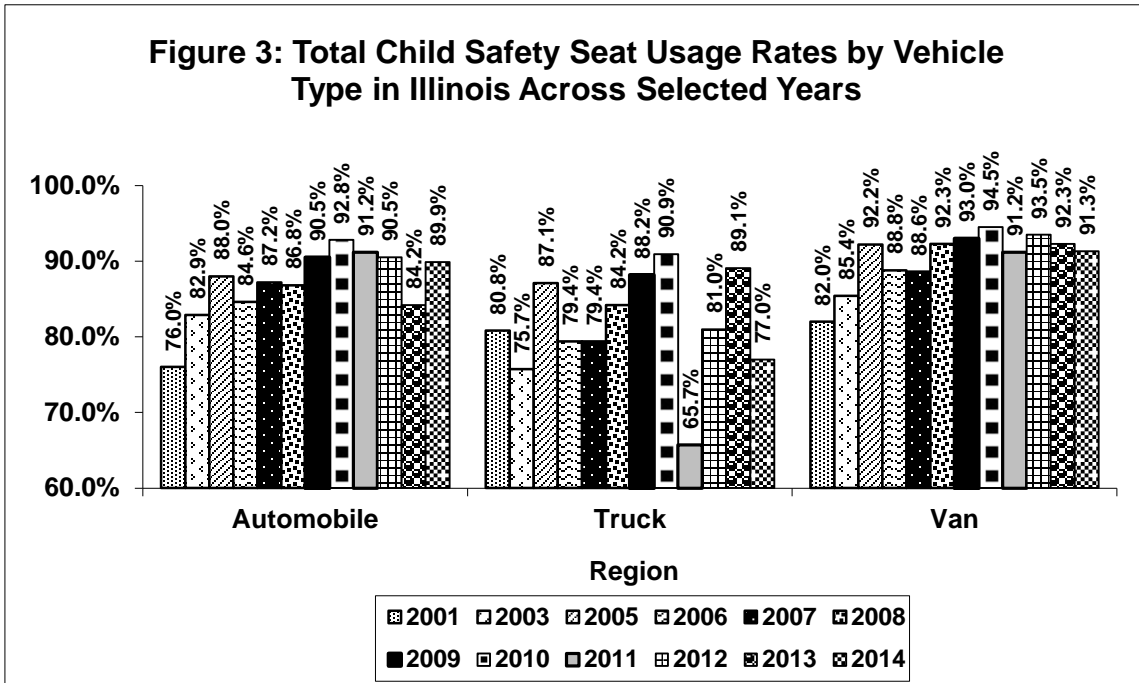


Figure 4: Total Child Safety Seat Usage Rates by Driver's Gender in Illinois Across Selected Years

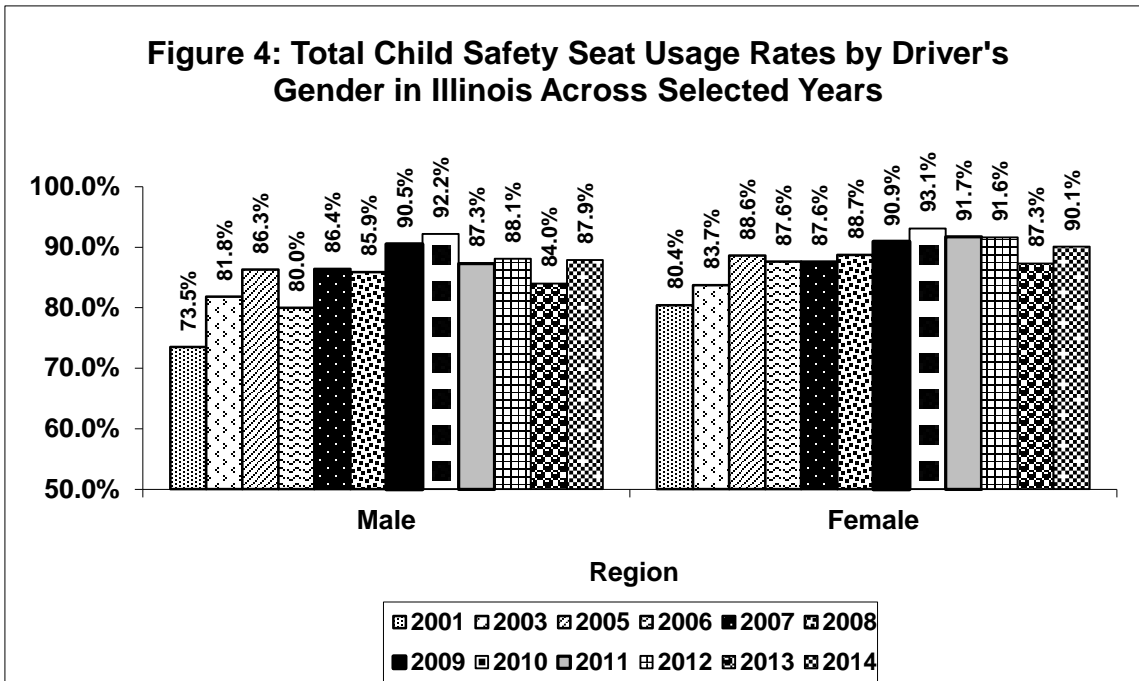


Figure 5: Total Child Safety Seat Usage Rates by Driver's Belt Status in Illinois Across Selected Years

