



**Illinois Department  
of Transportation**

TECHNICAL REPORT

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January 2014

# **Child Safety Seat Usage in Illinois**

**August/September 2013 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 August/September 2013 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

<b>TABLE 1.</b>	2013 Child Safety Seat Usage Rate in Illinois .....	4
<b>TABLE 2.</b>	Frequency and Percentage Distributions of Selected Demographics for the 2013 Child Safety Seat Survey .....	5
<b>TABLE 3.</b>	Analysis of the 2013 Illinois Child Safety Seat Survey Child Restraint Status by Region .....	6
<b>TABLE 4.</b>	Analysis of the 2013 Illinois Child Safety Seat Survey Child Restraint Status by Location Type .....	7
<b>TABLE 5.</b>	Analysis of the 2013 Illinois Child Safety Seat Survey Child Restraint Status by Vehicle Type.....	7
<b>TABLE 6.</b>	Analysis of the 2013 Illinois Child Safety Seat Survey Child Restraint Status by Driver’s Gender .....	8
<b>TABLE 7.</b>	Analysis of the 2013 Illinois Child Safety Seat Survey Child Restraint Status by Driver’s Belt Status .....	8
<b>TABLE 8.</b>	Total Child Safety Seat Usage Rates in Illinois (2001-2013).....	11
<b>TABLE 9.</b>	Correct Child Safety Seat Usage Rates in Illinois (2006-2013).....	11
<b>TABLE 10.</b>	Child Safety Seat Usage Rates in Illinois by Selected Characteristics 2001-2013.....	12

## LIST OF FIGURES

<b>FIGURE 1.</b> Total Child Safety Seat Usage Rates by Region in Illinois Across Selected Years.....	13
<b>FIGURE 2.</b> Total Child Safety Seat Usage Rates by Location Type in Illinois Across Selected Years.....	13
<b>FIGURE 3.</b> Total Child Safety Seat Usage Rates by Vehicle Type in Illinois Across Selected Years.....	14
<b>FIGURE 4.</b> Total Safety Seat Usage Rates by Driver's Gender in Illinois Across Selected Years.....	14
<b>FIGURE 5.</b> 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 3,577 children were observed in 2,442 passenger cars and pickup trucks in Illinois in 2013. 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 August/September 2013, a total of 3,577 children were observed in 2,442 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 86.5 percent. When only including the observations where the safety seat was used properly, the usage rate drops to 50.2 percent.
3. The collar counties had the highest percentage of child restraint use at 88.6 percent. The child safety seat usage rate in the downstate counties and Cook County was 79.7 percent and 88.2 percent respectively. Cook County had the highest percentage of properly restrained children at 53.1 percent. The percentage of properly restrained children in the collar counties and downstate counties was 50.8 percent and 42.4 percent respectively.
4. Shopping malls had the highest percentage of children who were restrained at 90.7 percent. The child safety seat usage rate at day care centers was 85.6 percent. The child safety seat usage rate at McDonald's restaurants and health care centers was 82.4 percent and 81.9 percent respectively. Based on proper child safety seat use, shopping malls had the highest percentage of properly restrained children at 62.2 percent. The child safety seat usage rate at health care and day care centers was 44.3 percent and 42.9 percent respectively. McDonald's had the lowest percentage of properly restrained children at 42.3 percent.
5. Vans had the highest percentage of children who were restrained and properly restrained at 92.3 percent and 55.6 percent respectively. In automobiles, the percentage of children who were restrained and properly restrained was 84.2 percent and 48.1 percent respectively. The child safety seat usage rate for pickup trucks was 89.1 percent. When excluding incorrect use, the child safety seat usage rate in pickup trucks was 54.9 percent.
6. When a female was driving, over 87 percent of children (87.3 percent) were restrained and 50.6 percent of children were properly restrained. When a male was driving, 84 percent of children were restrained and only 49.3 percent of children were properly restrained.
7. When a driver was wearing their safety belt, almost 92 percent of children were restrained. When excluding incorrect use, only 56.6 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 62.7 percent of children were restrained. When excluding incorrect use, only 24.8 percent of these children were properly restrained.

8. The total usage rate from 2001 thru 2013 increased significantly by 8.5 percentage points from 78.0 percent in 2001 to 86.5 percent in 2013. The rate of increase ranges from 6.0 percent for vehicle with one child to 29.1 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 (2006-2013) to the years prior to 2006. The correct usage rate of restrained children decreased by 3.7 percentage points from 53.9 percent in 2006 to 50.2 percent in 2013.

## Observational Survey

Using a multi-stage random sampling technique, a total of 3,577 children were observed in 2,442 passenger cars and pickup trucks in Illinois in 2013. 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 2013.

Table 1 shows that the overall child restraint usage rate in Illinois is 86.5 percent. After excluding total number of observations in which the child restraint is used incorrectly, the usage rate is reduced to 50.2 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 87.9 percent and 50.8 percent respectively. On the other hand, these percentages are lower for Child 3 at 80.2 percent and 47.0 percent respectively.

**Table 1: 2013 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	295	907	1239	2441	87.9%	50.8%
Child 2	114	290	413	817	86.0%	50.6%
Child 3	59	99	140	298	80.2%	47.0%
Child 4	14	2	5	21	33.3%	23.8%
<b>Total</b>	<b>482</b>	<b>1298</b>	<b>1797</b>	<b>3577</b>	<b>86.5%</b>	<b>50.2%</b>

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 (71.4 percent). The percentage of vans and trucks observed were 17.5 percent and 11.1 percent respectively. Based on driver's gender, 64 percent of the drivers observed were female, while only 36.0 percent of the observations were male. Based on driver's belt status, 82.0 percent of drivers were observed wearing their seat belts, while the remaining 18.0 percent were unbelted. Based on location type, the largest percentage of vehicles was observed at shopping malls (38.5 percent). Almost 22 percent of the vehicles were observed at McDonald's restaurants and 31.9

percent were observed at day care centers. The smallest percentage of vehicles was observed at health care centers (7.9 percent).

**Table 2: Frequency and Percentage Distributions  
of Selected Demographics for the  
2013 Child Safety Seat Survey**

<b>Type of Vehicle</b>		
	Frequency	Percentage
<b>Automobile</b>	1718	71.4%
<b>Truck</b>	267	11.1%
<b>Van</b>	422	17.5%
<b>TOTAL</b>	2407	100.0%
<b>Driver's Gender</b>		
	Frequency	Percentage
<b>Female</b>	1495	64.0%
<b>Male</b>	840	36.0%
<b>TOTAL</b>	2335	100.0%
<b>Driver's Belt Status</b>		
	Frequency	Percentage
<b>Belted</b>	1868	82.0%
<b>Not Belted</b>	409	18.0%
<b>TOTAL</b>	2277	100.0%
<b>Total Vehicles Observed by Location Type</b>		
	Frequency	Percentage
<b>Daycare</b>	778	31.9%
<b>Health Center</b>	192	7.9%
<b>McDonald's</b>	532	21.8%
<b>Shopping Mall</b>	940	38.5%
<b>TOTAL</b>	2442	100.0%
<b>TOTAL</b>	2442	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 88.6 percent. The child safety seat usage rate in the downstate counties and Cook County was 79.7 percent and 88.6 percent respectively. Cook County had the highest percentage of properly restrained children at 53.1 percent. The percentage of properly restrained children in the collar counties was 50.8 percent. The downstate counties had the lowest percentage of properly restrained children at 42.4 percent.

**Table 3: Analysis of the 2013 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	470	50.8%	1005	53.1%	322	42.4%	1797	50.2%
Incorrectly Restrained	350	37.8%	664	35.1%	284	37.4%	1298	36.3%
<b>Total Restrained*</b>	820	88.6%	1669	88.2%	606	79.7%	3095	86.5%
Not Restrained	105	11.4%	223	11.8%	154	20.3%	482	13.5%
<i>Column Totals</i>	925	100.0%	1892	100.0%	760	100.0%	3577	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 90.7 percent. The child safety seat usage rate at day care centers was 85.6 percent. The child safety seat usage rate at health care centers and McDonald's restaurants was 81.6 percent and 82.4 percent respectively. Based on proper child safety seat use, shopping malls had the highest percentage of properly restrained children at 62.2 percent. The percentage of properly restrained children at health care and day care centers was 44.3 percent and 42.9 percent respectively. McDonald's restaurants had the lowest percentage of properly restrained children at 42.3 percent.

**Table 4: Analysis of the 2013 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	499	42.9%	120	44.3%	331	42.3%	847	62.2%	1797	50.2%
Incorrectly Restrained	496	42.6%	102	37.6%	313	40.0%	387	28.4%	1298	36.3%
<b>Total Restrained*</b>	995	85.6%	222	81.9%	644	82.4%	1234	90.7%	3095	86.5%
Not Restrained	168	14.4%	49	18.1%	138	17.6%	127	9.3%	482	13.5%
<i>Column Totals</i>	1163	100.0%	271	100.0%	782	100.0%	1361	100.0%	3577	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 92.3 percent and 55.6 percent respectively. Slightly less than 90 percent of children in pickup trucks were restrained. When excluding incorrect use, the child safety seat usage rate in pickups was 54.9 percent. The child safety seat usage rate for automobiles was 84.2 percent. When excluding incorrect use, the child safety seat usage rate in automobiles was 48.1 percent.

**Table 5: Analysis of the 2013 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	1168	48.1%	197	54.9%	404	55.6%	1769	50.3%
Incorrectly Restrained	878	36.1%	123	34.3%	266	36.6%	1267	36.1%
<b>Total Restrained*</b>	2046	84.2%	320	89.1%	670	92.3%	3036	86.4%
Not Restrained	383	15.8%	39	10.9%	56	7.7%	478	13.6%
<i>Column Totals</i>	2429	100.0%	359	100.0%	726	100.0%	3514	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 3577 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, slightly more than 87 percent of children (87.2 percent) were restrained and only 50.6 percent of children were properly restrained. When a male was driving, only 84.0 percent of children were restrained and only 49.3 percent of children were properly restrained.

**Table 6: Analysis of the 2013 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	582	49.3%	1,123	50.6%	1,705	50.1%
Incorrectly Restrained	409	34.7%	814	36.7%	1,223	36.0%
<b>Total Restrained*</b>	991	84.0%	1,937	87.3%	2,928	86.1%
Not Restrained	189	16.0%	283	12.7%	472	13.9%
<i>Column Totals</i>	1,180	100.0%	2,220	100.0%	3,400	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 2,587 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**), eighty-two percent of all drivers observed with children in their vehicles were wearing their safety belts (1,868 belted drivers divided by 2,277 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, almost 92 percent of children were restrained. When excluding incorrect use, only 56.6 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 62.7 percent of children were restrained. When excluding incorrect use, only 24.8 percent of these children were properly restrained.

**Table 7: Analysis of the 2013 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	1,506	56.6%	162	24.8%	1,668	50.3%
Incorrectly Restrained	938	35.2%	247	37.9%	1,185	35.8%
<b>Total Restrained*</b>	2,444	91.8%	409	62.7%	2,853	86.1%
Not Restrained	218	8.2%	243	37.3%	461	13.9%
<i>Column Totals</i>	2,662	100.0%	652	100.0%	3,314	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 2,587 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 2013. As shown in this table, the total usage rate increased significantly by 8.5 percentage points from 78.0 percent in 2001 to 86.5 percent in 2013. The rate of increase ranges from 6.0 percent for vehicle with four children to 29.1 percent for vehicles with three 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 2013 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 (2006-2013) to the years prior to 2006. As shown in this table, the correct usage rate of restrained children decreased by 3.7 percentage points from 53.9 percent in 2006 to 50.2 percent in 2011. The correct usage rate decreased from 59.5 percent in 2012 to 50.2 percent in 2013.

**Table 10** shows comparative analyses of child safety seat usage rates for 2001 through 2013. 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 2013 usage rates.

**Figure 1** shows the total usage rate of restrained children by the selected regions in Illinois. From 2001 to 2012, while there are fluctuations from year to year, all regions noticed increases in child safety seat use. In 2013, the child safety seat use across all regions decreased from the prior year. The child safety seat usage rate in the collar counties increased from 71.5 percent in 2001 to 88.6 percent in 2013. In the downstate counties, while the child safety seat usage rates increased from 77.2 percent in 2001 to 85.7 percent in 2012, it decreased down to 79.7 percent in 2013. In Cook County, the child safety seat usage rate increased from 81.2 percent in 2001 to 88.2 percent in 2013.

**Figure 2** shows the total child safety seat usage rate by location type in Illinois. From 2001 to 2012, the total usage rate of restrained children increased at all location types, but, in 2013,

these rates decreased. From 2010 to 2011, 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 85.6 percent in 2011. The total usage rate at health care centers increased from 74.3 percent in 2001 to 90.8 percent in 2011. The total usage rate for shopping malls increased from 81.8 percent in 2001 to 93.2 percent in 2011. The total usage rate at day care centers increased from 83.7 percent in 2001 to 90.6 percent in 2011.

**Figure 3** shows the total usage rate of restrained children by vehicle type in Illinois. From 2001 to 2012, the total usage rate increased in automobiles and vans. While the total usage rate increased in pickup trucks from 2001 through 2010, the 2011 usage rate numbers were influenced by significantly lower observations of pickup trucks. In automobiles, the total usage rate of restrained children increased by 15.2 percentage points (an increase from 76.0 percent in 2001 to 91.2 percent in 2011). In vans, the total usage rate of restrained children increased from 82.0 percent in 2001 to 91.2 percent in 2011. In pickup trucks, the total usage rate of restrained children increased by 10.1 percentage points (an increase from 80.8 percent in 2001 to 90.9 percent in 2010). During 2011, due to significantly low observations of pickup trucks, the total usage rate of restrained children was 65.7 percent.

**Figure 4** shows the total usage rate of restrained children by driver's gender in Illinois. From 2001 to 2011, the total usage rate of restrained children for male drivers increased by 13.8 percentage points and for female drivers it increased by 11.3 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 3.1 percentage points from 2001 through 2013. The total child safety seat usage rate for unbelted drivers gradually increased from 51.8 percent in 2001 to 65.7 percent in 2009. In 2010, the total child safety seat usage rate increased to 81.9 percent, but, in 2011, it came back down to 56.0 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**  
**(2001-2013)**

Child Number	Total Usage Rate of Restrained Children											Percent Change* (2001-2013)
	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)	
<b>Statewide</b>	<b>78.0%</b>	<b>83.0%</b>	<b>87.7%</b>	<b>85.4%</b>	<b>87.2%</b>	<b>87.7%</b>	<b>90.7%</b>	<b>92.8%</b>	<b>90.2%</b>	<b>90.5%</b>	<b>86.5%</b>	<b>8.5%</b>
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%	6.9%
Child 2	74.5%	80.0%	85.3%	79.7%	84.2%	84.7%	88.3%	93.1%	89.9%	89.7%	86.0%	11.5%
Child 3	51.1%	64.9%	75.0%	76.5%	75.8%	63.0%	78.4%	82.8%	83.9%	76.3%	80.2%	29.1%
Child 4	27.3%	50.0%	60.0%	72.7%	60.0%	50.0%	45.5%	71.4%	100.0%	53.8%	33.3%	6.0%

\* Percent change was calculated by subtracting the 2001 Total Usage Rate from the 2011 Total Usage Rate.

**TABLE 9**  
**Correct Child Safety Seat Usage Rates in Illinois**  
**(2006-2013)**

Child Number	Correct Usage Rate of Restrained Children (excludes Incorrect Use)									Percent Change* (2006-2013)
	Proper Use (2006)	Proper Use (2007)	Proper Use (2008)	Proper Use (2009)	Proper Use (2010)	Proper Use (2011)	Proper Use (2012)	Proper Use (2013)		
<b>Statewide</b>	<b>53.9%</b>	<b>53.6%</b>	<b>56.4%</b>	<b>47.7%</b>	<b>44.9%</b>	<b>48.2%</b>	<b>59.5%</b>	<b>50.2%</b>	<b>-3.7%</b>	
Child #										
Child 1	55.3%	54.2%	56.9%	47.7%	43.5%	48.4%	60.4%	50.8%	-4.5%	
Child 2	51.7%	54.1%	58.6%	50.0%	52.6%	48.8%	58.3%	50.6%	-1.1%	
Child 3	38.3%	37.4%	38.0%	35.2%	20.4%	41.1%	47.5%	47.0%	8.7%	
Child 4	36.4%	33.3%	32.1%	0.0%	0.0%	0.0%	38.5%	23.8%	-12.6%	

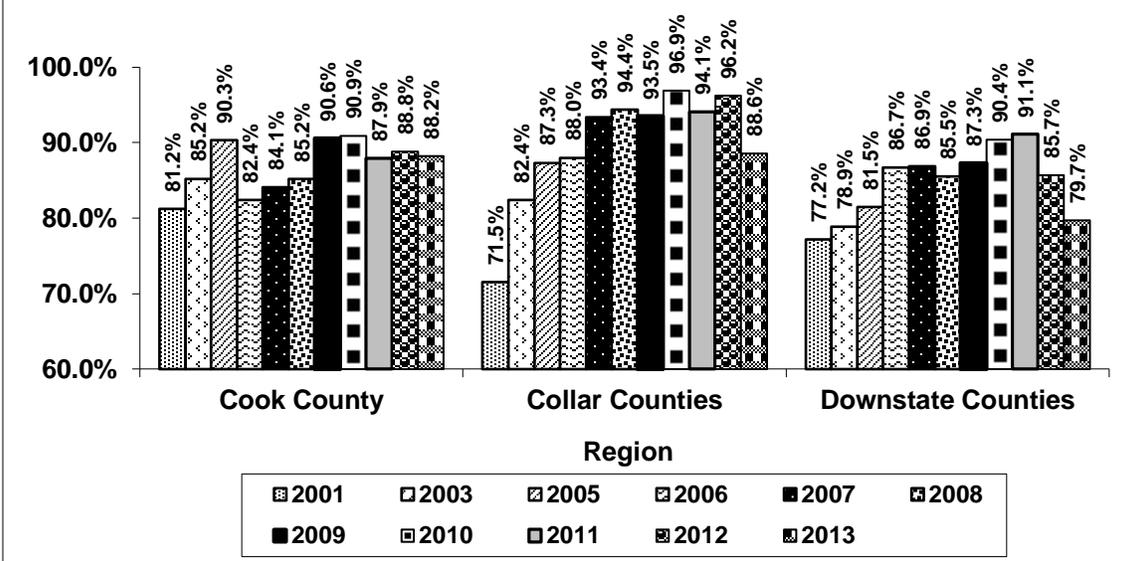
\* Percent change was calculated by subtracting the 2006 Proper Usage Rate from the 2011 Proper Usage Rate.

**Table 10**  
**Child Safety Seat Usage in Illinois**  
**by Selected Characteristics**  
**(2001-2013)**

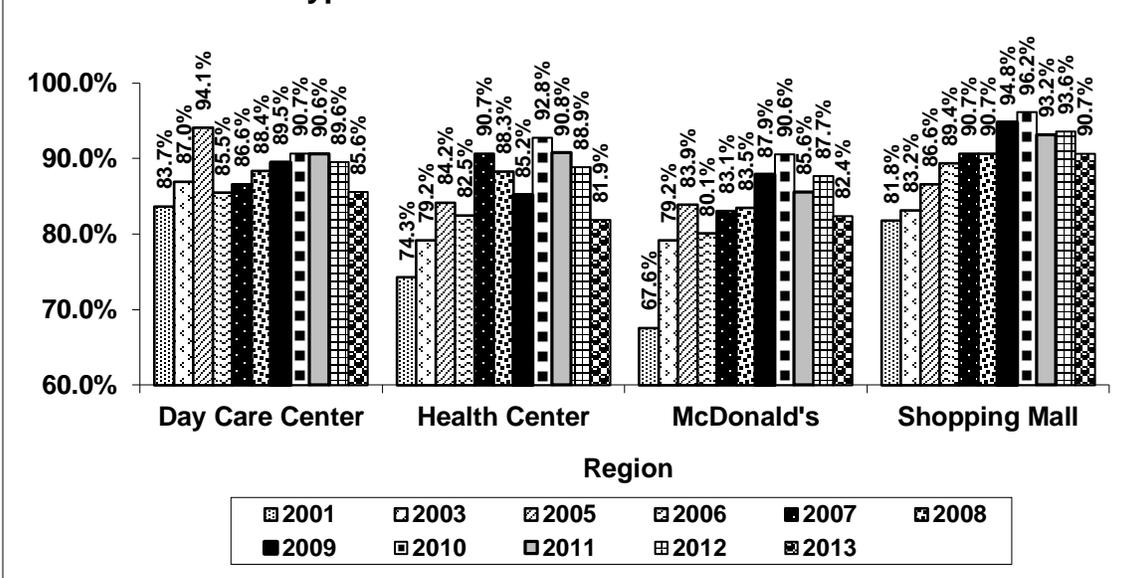
	Total Usage Rate of Restrained Children											Percent Change*
	Usage Rate	Usage Rate	Usage Rate	Usage Rate	Usage Rate	Usage Rate	Usage Rate	Usage Rate	Usage Rate	Usage Rate	Usage Rate	
	2001	2003	2005	2006	2007	2008	2009	2010	2011	2012	2013	
<b>Statewide</b>	<b>78.0%</b>	<b>83.0%</b>	<b>87.7%</b>	<b>85.4%</b>	<b>87.2%</b>	<b>87.7%</b>	<b>90.7%</b>	<b>92.8%</b>	<b>90.2%</b>	<b>90.5%</b>	<b>86.5%</b>	<b>8.5%</b>
<b>Region</b>												
Cook County	81.2%	85.2%	90.3%	82.4%	84.1%	85.2%	90.6%	90.9%	87.9%	88.8%	88.2%	7.0%
Collar Counties	71.5%	82.4%	87.3%	88.0%	93.4%	94.4%	93.5%	96.9%	94.1%	96.2%	88.6%	17.1%
Downstate Counties	77.2%	78.9%	81.5%	86.7%	86.9%	85.5%	87.3%	90.4%	91.1%	85.7%	79.7%	2.5%
<b>Location</b>												
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%	1.9%
Health Center	74.3%	79.2%	84.2%	82.5%	90.7%	88.3%	85.2%	92.8%	90.8%	88.9%	81.9%	7.6%
McDonald's	67.6%	79.2%	83.9%	80.1%	83.1%	83.5%	87.9%	90.6%	85.6%	87.7%	82.4%	14.8%
Shopping Mall	81.8%	83.2%	86.6%	89.4%	90.7%	90.7%	94.8%	96.2%	93.2%	93.6%	90.7%	8.9%
<b>Vehicle Type</b>												
Automobile	76.0%	82.9%	88.0%	84.6%	87.2%	86.8%	90.5%	92.8%	91.2%	90.5%	84.2%	8.2%
Truck	80.8%	75.7%	87.1%	79.4%	79.4%	84.2%	88.2%	90.9%	65.7%	81.0%	89.1%	8.3%
Van	82.0%	85.4%	92.2%	88.8%	88.6%	92.3%	93.0%	94.5%	91.2%	93.5%	92.3%	10.3%
<b>Gender</b>												
Male	73.5%	81.8%	86.3%	80.0%	86.4%	85.9%	90.5%	92.2%	87.3%	88.1%	84.0%	10.5%
Female	80.4%	83.7%	88.6%	87.6%	87.6%	88.7%	90.9%	93.1%	91.7%	91.6%	87.3%	6.9%
<b>Driver's Belt Status</b>												
Belted	91.2%	94.0%	95.9%	91.6%	92.2%	92.7%	95.1%	94.6%	94.3%	94.7%	91.8%	0.6%
Unbelted	51.8%	57.1%	62.6%	62.4%	68.1%	66.8%	65.7%	81.9%	56.0%	55.3%	62.7%	10.9%

\* Percent change is calculated by subtracted the 2001 usage rates from the 2013 usage rates.

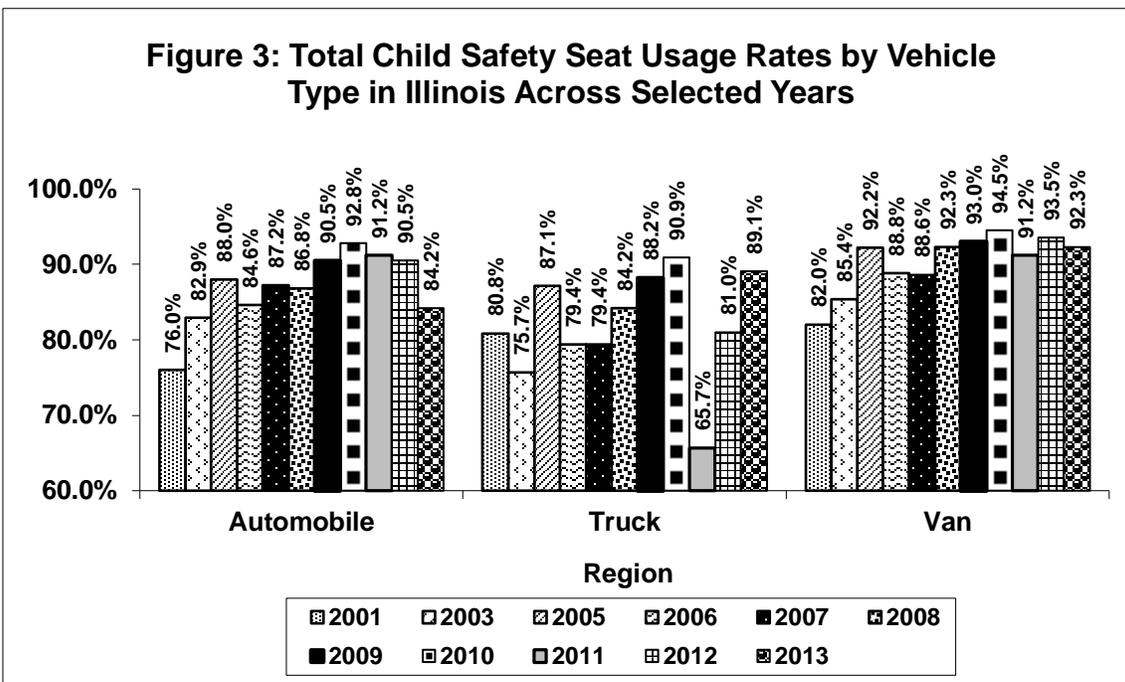
**Figure 1: Total Child Safety Seat Usage Rates by Region in Illinois Across Selected Years**



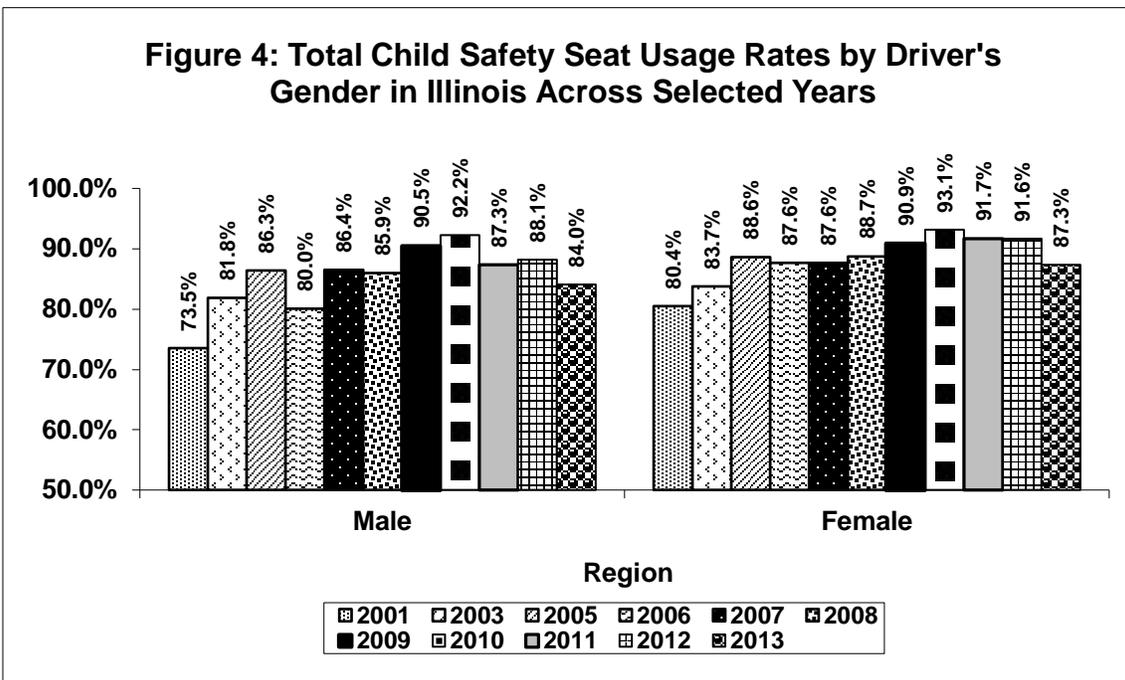
**Figure 2: Total Child Safety Seat Usage Rates by Location Type in Illinois Across Selected Years**



**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**

