



**Illinois Department
of Transportation**

TECHNICAL REPORT

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Child Safety Seat Usage in Illinois

July 2012 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 2012 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.

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Executive Summary

Using a multi-stage random sampling technique, a total of 2,816 children were observed in 2,121 passenger cars and pickup trucks in Illinois in 2012. 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 2012, a total of 2,816 children were observed in 2,121 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 90.5 percent. When only including the observations where the safety seat was used properly, the usage rate drops to 59.5 percent.
3. The collar counties had the highest percentage of child restraint use at 96.2 percent. The child safety seat usage rate in the downstate counties and Cook County was 85.7 percent and 88.8 percent respectively. The collar counties had the highest percentage of properly restrained children at 69.6 percent. The percentage of properly restrained children in the Cook County and downstate counties was 59.6 percent and 43.5 percent respectively.
4. Shopping malls had the highest percentage of children who were restrained at 93.6 percent. The child safety seat usage rate at day care centers was 89.6 percent. The child safety seat usage rate at health care centers and McDonald's restaurants was 88.9 percent and 87.7 percent respectively. Based on proper child safety seat use, shopping malls had the highest percentage of properly restrained children at 67.2 percent. The proper child safety seat usage rate at health care centers and McDonald's restaurants malls was 56.0 percent and 56.4 percent respectively. Day care centers had the lowest percentage of properly restrained children at 54.0 percent.
5. Vans had the highest percentage of children who were restrained and properly restrained at 93.5 percent and 68.4 percent respectively. In automobiles, the percentage of children who were restrained and properly restrained was 90.5 percent and 58.5 percent respectively. The child safety seat usage rate for pickup trucks was 81.0 percent. When excluding incorrect use, the child safety seat usage rate in pickup trucks was 41.1 percent.
6. When a female was driving, over 91 percent of children (91.6 percent) were restrained and 61.4 percent of children were properly restrained. When a male was driving, over 88 percent (88.1 percent) of children were restrained and only 57.9 percent of children were properly restrained.

7. When a driver was wearing their safety belt, almost 95 percent of children were restrained. When excluding incorrect use, only 66.1 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 55.3 percent of children were restrained. When excluding incorrect use, only 13.6 percent of these children were properly restrained.
8. The total usage rate from 2001 thru 2012 increased significantly by 12.5 percentage points from 78.0 percent in 2001 to 90.5 percent in 2012. The rate of increase ranges from 10.5 percent for vehicle with one child to 26.5 percent for vehicles with four 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 (2006-2012) to the years prior to 2006. The correct usage rate of restrained children increased by 5.6 percentage points from 53.9 percent in 2006 to 59.5 percent in 2012.

Observational Survey

Using a multi-stage random sampling technique, a total of 2,587 children were observed in 2,034 passenger cars and pickup trucks in Illinois in 2012. 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 2012.

Table 1 shows that the overall child restraint usage rate in Illinois is 90.5 percent. After excluding total number of observations in which the child restraint is used incorrectly, the usage rate is reduced to 59.5 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 91.5 percent and 60.4 percent respectively. On the other hand, these percentages are lower for Child 3 at 76.3 percent and 47.5 percent respectively.

Table 1: 2012 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	180	659	1282	2121	91.5%	60.4%
Child 2	62	189	351	602	89.7%	58.3%
Child 3	19	23	38	80	76.3%	47.5%
Child 4	6	2	5	13	53.8%	38.5%
Total	267	873	1676	2816	90.5%	59.5%

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 (81.2 percent). The percentage of vans and trucks observed were 14.6 percent and 4.3 percent respectively. Based on driver's gender, almost 63 percent (62.6 percent) of the drivers observed were female, while only 37.4 percent of the observations were male. Based on driver's belt status, almost 90 percent (89.5 percent) of drivers were observed wearing their seat belts, while the remaining 10.5 percent were unbelted. Based on location type, the largest percentage of vehicles was observed at shopping malls (41.0 percent). Twenty-eight percent of the vehicles were observed

at McDonald's restaurants and 24.0 percent were observed at day care centers. The smallest percentage of vehicles was observed at health care centers (7.0 percent).

Table 2: Frequency and Percentage Distributions of Selected Demographics for the 2012 Child Safety Seat Survey

Type of Vehicle		
	Frequency	Percentage
Automobile	1627	77.3%
Truck	100	4.8%
Van	378	18.0%
TOTAL	2105	100.0%
Driver's Gender		
	Frequency	Percentage
Female	1296	63.4%
Male	747	36.6%
TOTAL	2043	100.0%
Driver's Belt Status		
	Frequency	Percentage
Belted	1832	90.1%
Not Belted	201	9.9%
TOTAL	2033	100.0%
Total Vehicles Observed by Location Type		
	Frequency	Percentage
Daycare	629	29.7%
Health Center	153	7.2%
McDonald's	536	25.3%
Shopping Mall	803	37.9%
TOTAL	2121	100.0%
TOTAL	2121	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 96.2 percent. The child safety seat usage rate in the downstate counties and Cook County was 85.7 percent and 88.8 percent respectively. The collar counties had the highest percentage of properly restrained children at 69.6 percent. The percentage of properly restrained children in Cook County was 59.6 percent. The downstate counties had the lowest percentage of properly restrained children at 43.5 percent.

**Table 3: Analysis of the 2012 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	611	69.6%	821	59.6%	244	43.5%	1676	59.5%
Incorrectly Restrained	234	26.7%	402	29.2%	237	42.2%	873	31.0%
Total Restrained*	845	96.2%	1223	88.8%	481	85.7%	2549	90.5%
Not Restrained	33	3.8%	154	11.2%	80	14.3%	267	9.5%
<i>Column Totals</i>	878	100.0%	1377	100.0%	561	100.0%	2816	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 93.6 percent. The child safety seat usage rate at day care centers was 89.6 percent. The child safety seat usage rate at health care centers and McDonald's restaurants was 88.9 percent and 87.7 percent respectively. Based on proper child safety seat use, shopping malls had the highest percentage of properly restrained children at 67.2 percent. The percentage of properly restrained children at health care centers and McDonald's restaurants was 56.0 percent and 56.4 percent respectively. Day care centers had the lowest percentage of properly restrained children at 54.0 percent.

**Table 4: Analysis of the 2012 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	488	54.0%	116	56.0%	389	56.4%	683	67.2%	1676	59.5%
Incorrectly Restrained	321	35.5%	68	32.9%	216	31.3%	268	26.4%	873	31.0%
Total Restrained*	809	89.6%	184	88.9%	605	87.7%	951	93.6%	2549	90.5%
Not Restrained	94	10.4%	23	11.1%	85	12.3%	65	6.4%	267	9.5%
<i>Column Totals</i>	903	100.0%	207	100.0%	690	100.0%	1016	100.0%	2816	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 93.5 percent and 68.4 percent respectively. Slightly more than 90 percent of children in automobiles were restrained. When excluding incorrect use, the child safety seat usage rate in automobiles was 58.5 percent. The child safety seat usage rate for pickup trucks was 81.0 percent. When excluding incorrect use, the child safety seat usage rate in pickup trucks was 41.4 percent.

**Table 5: Analysis of the 2012 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	1220	58.5%	48	41.4%	401	68.4%	1669	59.9%
Incorrectly Restrained	667	32.0%	46	39.7%	147	25.1%	860	30.8%
Total Restrained*	1887	90.5%	94	81.0%	548	93.5%	2529	90.7%
Not Restrained	199	9.5%	22	19.0%	38	6.5%	259	9.3%
<i>Column Totals</i>	2086	100.0%	116	100.0%	586	100.0%	2788	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 2,816 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, almost 92 percent of children (91.6 percent) were restrained and only 61.4 percent of children were properly restrained. When a male was driving, only 88.1 percent of children were restrained and only 57.9 percent of children were properly restrained.

**Table 6: Analysis of the 2012 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	553	57.9%	1060	61.4%	1613	60.2%
Incorrectly Restrained	288	30.2%	520	30.1%	808	30.1%
Total Restrained*	841	88.1%	1580	91.6%	2421	90.3%
Not Restrained	114	11.9%	145	8.4%	259	9.7%
<i>Column Totals</i>	955	100.0%	1725	100.0%	2680	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 2680 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**), 90 percent of all drivers observed with children in their vehicles were wearing their safety belts (1832 belted drivers divided by 2033 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 95 percent of children were restrained. When excluding incorrect use, only 66.1 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 55.3 percent of children were restrained. When excluding incorrect use, only 13.6 percent of these children were properly restrained.

**Table 7: Analysis of the 2012 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	1560	66.1%	41	13.6%	1601	60.1%
Incorrectly Restrained	675	28.6%	126	41.7%	801	30.1%
Total Restrained*	2235	94.7%	167	55.3%	2402	90.2%
Not Restrained	125	5.3%	135	44.7%	260	9.8%
<i>Column Totals</i>	2360	100.0%	302	100.0%	2662	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 2662 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 2012. As shown in this table, the total usage rate increased significantly by 12.2 percentage points from 78.0 percent in 2001 to 90.5 percent in 2012. The rate of increase ranges from 10.5 percent for vehicle with one child to 26.5 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 2012 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 (2006-2012) to the years prior to 2006. As shown in this table, the correct usage rate of restrained children increased by 5.6 percentage points from 53.9 percent in 2006 to 59.5 percent in 2012. The correct usage rate increased from 48.2 percent in 2011 to 59.5 percent in 2012.

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 2012 usage rates.

Figure 1 shows the total usage rate of restrained children by the selected regions in Illinois. From 2001 to 2012, all regions noticed increases in child safety seat use. From 2010 to 2012, there was a slight decrease in the usage rate across the collar counties and Cook County. The child safety seat usage rate in the collar counties increased from 71.5 percent in 2001 to 96.2 percent in 2012. In the downstate counties, the child safety seat usage rates increased from 77.2 percent in 2001 to 85.7 percent in 2012. In Cook County, the child safety seat usage rate increased from 81.2 percent in 2001 to 88.8 percent in 2012.

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. From 2011 to 2012, 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 87.7 percent in 2012. The total usage rate at health care centers increased from 74.3 percent in 2001 to 88.9 percent in 2012. The total usage rate for shopping malls increased from 81.8 percent in 2001 to 93.6 percent in 2012. The total usage rate at day care centers increased from 83.7 percent in 2001 to 89.6 percent in 2012.

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 14.5 percentage points (an increase from 76.0 percent in 2001 to 90.5 percent in 2012). In vans, the total usage rate of restrained children increased from 82.0 percent in 2001 to 93.5 percent in 2012. 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 and similar issues were observed in 2012 at 81.0 percent.

Figure 4 shows the total usage rate of restrained children by driver's gender in Illinois. From 2001 to 2012, the total usage rate of restrained children for male drivers increased by 14.6 percentage points and for female drivers it increased by 11.2 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 3.5 percentage points from 2001 through 2012. The total child safety seat usage rate for unbelted drivers gradually increased from 51.8 percent in 2001 to 55.3 percent in 2012. Note, in 2010, there was significant increase up to 81.9 percent. These numbers should be taken with caution 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
(2001-2012)

Child Number	Total Usage Rate of Restrained Children										Percent Change* (2001-2012)
	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)	
Statewide	78.0%	83.0%	87.7%	85.4%	87.2%	87.7%	90.7%	92.8%	90.2%	90.5%	12.2%
Child #											
Child 1	81.0%	85.3%	89.4%	87.4%	88.8%	90.5%	92.1%	93.1%	90.5%	91.5%	10.5%
Child 2	74.5%	80.0%	85.3%	79.7%	84.2%	84.7%	88.3%	93.1%	89.9%	89.7%	15.2%
Child 3	51.1%	64.9%	75.0%	76.5%	75.8%	63.0%	78.4%	82.8%	83.9%	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%	26.5%

* Percent change was calculated by subtracting the 2001 Total Usage Rate from the 2012 Total Usage Rate.

TABLE 9
Correct Child Safety Seat Usage Rates in Illinois
(2006-2012)

Child Number	Correct Usage Rate of Restrained Children (excludes Incorrect Use)							Percent Change* (2006-2012)
	Proper Use (2006)	Proper Use (2007)	Proper Use (2008)	Proper Use (2009)	Proper Use (2010)	Proper Use (2011)	Proper Use (2012)	
Statewide	53.9%	53.6%	56.4%	47.7%	44.9%	48.2%	59.5%	6.5%
Child #								
Child 1	55.3%	54.2%	56.9%	47.7%	43.5%	48.4%	60.4%	5.1%
Child 2	51.7%	54.1%	58.6%	50.0%	52.6%	48.8%	58.3%	6.6%
Child 3	38.3%	37.4%	38.0%	35.2%	20.4%	41.1%	47.5%	9.2%
Child 4	36.4%	33.3%	32.1%	0.0%	0.0%	0.0%	38.5%	2.1%

* Percent change was calculated by subtracting the 2006 Proper Usage Rate from the 2012 Proper Usage Rate.

Table 10
Child Safety Seat Usage in Illinois
by Selected Characteristics
(2001-2012)

	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	Percent Change*
	2001	2003	2005	2006	2007	2008	2009	2010	2011	2012	
Statewide	78.0%	83.0%	87.7%	85.4%	87.2%	87.7%	90.7%	92.8%	90.2%	90.5%	12.5%
Region											
Cook County	81.2%	85.2%	90.3%	82.4%	84.1%	85.2%	90.6%	90.9%	87.9%	88.8%	7.6%
Collar Counties	71.5%	82.4%	87.3%	88.0%	93.4%	94.4%	93.5%	96.9%	94.1%	96.2%	24.7%
Downstate Counties	77.2%	78.9%	81.5%	86.7%	86.9%	85.5%	87.3%	90.4%	91.1%	85.7%	8.5%
Location											
Day Care Center	83.7%	87.0%	94.1%	85.5%	86.6%	88.4%	89.5%	90.7%	90.6%	89.6%	5.9%
Health Center	74.3%	79.2%	84.2%	82.5%	90.7%	88.3%	85.2%	92.8%	90.8%	88.9%	14.6%
McDonald's	67.6%	79.2%	83.9%	80.1%	83.1%	83.5%	87.9%	90.6%	85.6%	87.7%	20.1%
Shopping Mall	81.8%	83.2%	86.6%	89.4%	90.7%	90.7%	94.8%	96.2%	93.2%	93.6%	11.8%
Vehicle Type											
Automobile	76.0%	82.9%	88.0%	84.6%	87.2%	86.8%	90.5%	92.8%	91.2%	90.5%	14.5%
Truck	80.8%	75.7%	87.1%	79.4%	79.4%	84.2%	88.2%	90.9%	65.7%	81.0%	0.2%
Van	82.0%	85.4%	92.2%	88.8%	88.6%	92.3%	93.0%	94.5%	91.2%	93.5%	11.5%
Gender											
Male	73.5%	81.8%	86.3%	80.0%	86.4%	85.9%	90.5%	92.2%	87.3%	88.1%	14.6%
Female	80.4%	83.7%	88.6%	87.6%	87.6%	88.7%	90.9%	93.1%	91.7%	91.6%	11.2%
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%	3.5%
Unbelted	51.8%	57.1%	62.6%	62.4%	68.1%	66.8%	65.7%	81.9%	56.0%	55.3%	3.5%

* Percent change is calculated by subtracted the 2001 usage rates from the 2012 usage rates.

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

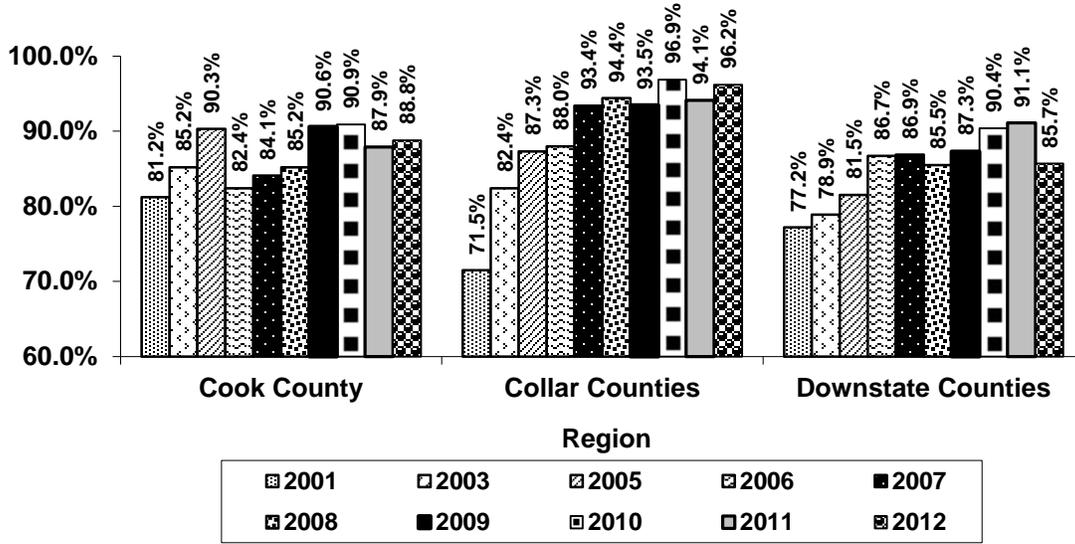


Figure 2: Total Child Safety Seat Usage Rates by Location Type in Illinois Across Selected Years

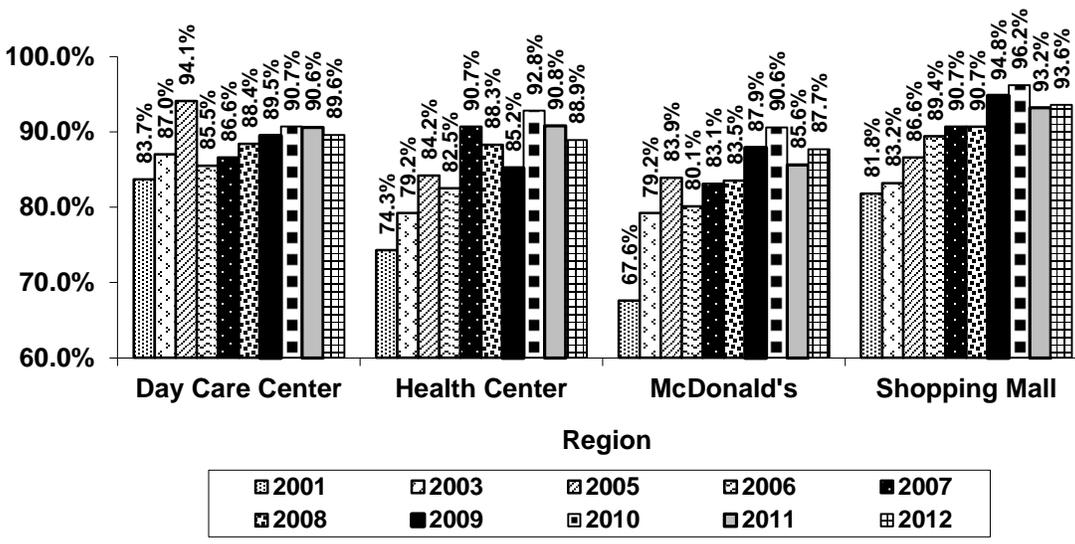


Figure 3: Total Child Safety Seat Usage Rates by Vehicle Type in Illinois Across Selected Years

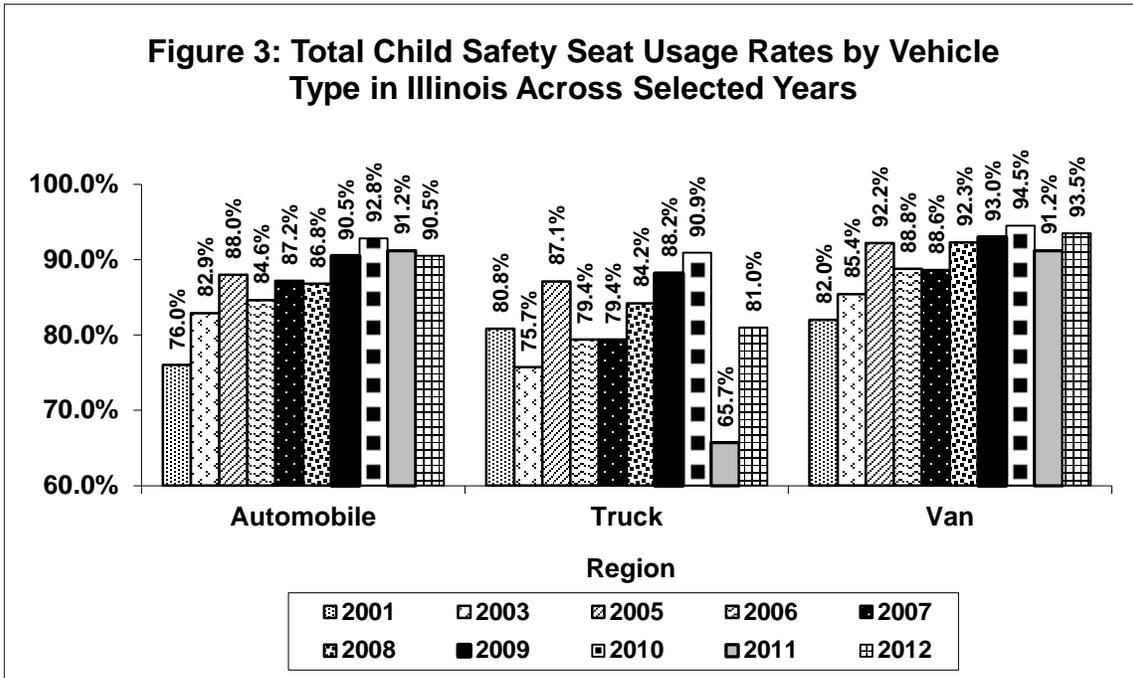


Figure 4: Total Child Safety Seat Usage Rates by Driver's Gender in Illinois Across Selected Years

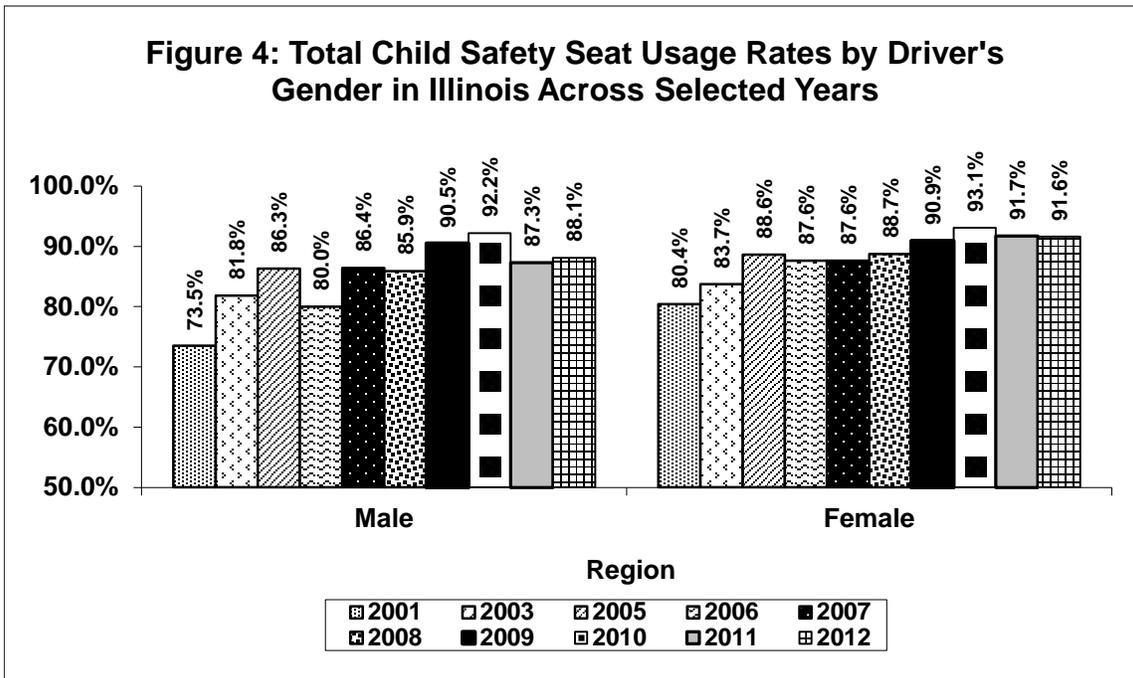


Figure 5: Total Child Safety Seat Usage Rates by Driver's Belt Status in Illinois Across Selected Years

