



# TRAFFIC SAFETY FACTS

## CHILDREN, 2012

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In 2012, 4,013 children (ages 0 to 15) were killed or injured in Indiana motor vehicle collisions. Approximately 7 percent of children involved in crashes in the state were killed (29 fatalities) or experienced *incapacitating* injuries (243). According to the National Highway Traffic Safety Administration (NHTSA), motor vehicle crashes remain the leading cause of death among children aged 4 and among children ages 11 through 14 (National Center for Statistics and Analysis, 2013). In 2011, NHTSA found that 1,140 children aged 14 and under were killed in traffic collisions. This accounted for 4 percent of 32,367 traffic fatalities in the United States.

Research has shown that the use of child restraints, including child safety seats and lap/shoulder belts, reduces the risk of fatal and serious injuries. NHTSA strongly recommends that child occupants progress through four stages of restraint usage from birth to adulthood; revised guidelines were released in 2011 for this process (Figure 1). Current Indiana child passen-

ger restraint law requires all child occupants aged 15 and under to be properly restrained in a child restraint device or seat belt in all seating positions in all vehicles. In addition to legislative efforts, child passenger safety experts have developed further recommended safety standards and best practices. NHTSA and several safety partners sponsor *Parents Central* (<http://www.safercar.gov/parents/index.htm>), a website that provides parents and caregivers access to a wide variety of tools and resources for keeping children safe in and around motor vehicles.

This fact sheet summarizes information on traffic collisions involving children in Indiana between 2008 and 2012. It examines general trends, injury status by age group, restraint usage and seating position, alcohol-related crashes, and geographical analysis by census locale and county. Indiana collision data come from the Indiana State Police Automated Reporting Information Exchange System (ARIES), as of April 9, 2013.

### IN INDIANA:

- In 2012, 4,013 children (ages 0 to 15) were killed or injured in Indiana motor vehicle collisions. Approximately 7 percent of all children involved in crashes in the state were killed or experienced incapacitating injuries.
- From 2008 to 2012, the number of children killed in Indiana traffic collisions declined 10 percent annually.
- Between 2008 and 2012, the 8- to 15-year-old age group exhibited rates of restraint use consistently lower than 85 percent. In 2012, the 8- to 15-year-old age group had the lowest rate of restraint use (82 percent), and restraint use among the *less than 1 year old* age group was the highest (97 percent).
- In 2012, the rate of serious injury per 100,000 population was 15.0 among the 4- to 7-year-old age group and 21.3 in the 8- to 15-year-old age group.

Figure 1. Car Seat Recommendations for Children

	<p><b>Birth — 12 months</b></p> <p>Your child under age 1 should always ride in a rear-facing car seat. There are different types of rear-facing car seats: Infant-only seats can only be used rear-facing. Convertible and 3-in-1 car seats typically have higher height and weight limits for the rear-facing position, allowing you to keep your child rear-facing for a longer period of time.</p>
	<p><b>1 – 3 years</b></p> <p>Keep your child rear-facing as long as possible. It's the best way to keep him or her safe. Your child should remain in a rear-facing car seat at least until the age of two, and should continue to ride rear-facing until he or she reaches the top height or weight limit allowed by your car seat's manufacturer. Once your child outgrows the rear-facing car seat, your child is ready to travel in a forward-facing car seat with a harness.</p>
	<p><b>4 – 7 years</b></p> <p>Keep your child in a forward-facing car seat with a harness until he or she reaches the top height or weight limit allowed by your car seat's manufacturer. Once your child outgrows the forward-facing car seat with a harness, it's time to travel in a booster seat, but still in the back seat.</p>
	<p><b>8 – 12 years</b></p> <p>Keep your child in a booster seat until he or she is big enough to fit in a seat belt properly. For a seat belt to fit properly the lap belt must lie snugly across the upper thighs, not the stomach. The shoulder belt should lie snug across the shoulder and chest and not cross the neck or face. Remember: your child should still ride in the back seat because it's safer there.</p>

Source: NHTSA, <http://www.safercar.gov/parents/RightSeat.htm>, current as of June 30, 2013.





## GENERAL TRENDS

From 2008 to 2012, the number of children killed in Indiana traffic collisions declined 10 percent annually and the number experiencing incapacitating injuries remained fairly stable (Table 1). Between 2011 and 2012, the total number of child fatalities in Indiana traffic collisions fell by 19 percent, from 36 to 29. The number of children who experienced incapacitating injuries increased between 2011 and 2012 by 24 percent, from 196 in 2011 to 243 in 2012. Based on the 2011 Indiana child population estimates (Table 2), the 8- to 15-year-old age group is under-represented in fatality proportions, but over-represented among incapacitating injuries—8- to 15-year-old children represent 51 percent of the Indiana child population but comprised 38 percent of child traffic fatalities and 63 percent of incapacitating injuries in 2012. Although the 1- to 3-year-old age group represents 18 percent of the Indiana child population, this group accounted for 38 percent of traffic fatalities among children.

**Table 2. Indiana child population estimates, 2011**

	Estimated IN population	Share of IN child Population
Less than 1 year old	84,220	6.0
1 to 3 years old	256,953	18.2
4 to 7 years old	353,588	25.0
8 to 15 years old	719,251	50.9
<i>Total</i>	<i>1,414,012</i>	<i>100.0</i>

Source: U.S. Census Bureau

Note: The most recent population estimates available by age and county are for 2011.

**Table 1. Children injured or killed in Indiana traffic collisions by injury status and age group, 2008-2012**

	2008		2009		2010		2011		2012		Annual rate of change	
	Count	%	Count	%	Count	%	Count	%	Count	%	2011-12	2008-12
<b>Fatal</b>												
Less than 1 year old	2	4.4	3	8.6	2	6.3	3	8.3	0	0.0	-100.0%	-100.0%
1 to 3 years old	5	11.1	2	5.7	4	12.5	5	13.9	11	37.9	120.0%	21.8%
4 to 7 years old	10	22.2	5	14.3	6	18.8	7	19.4	7	24.1	0.0%	-8.5%
8 to 15 years old	28	62.2	25	71.4	20	62.5	21	58.3	11	37.9	-47.6%	-20.8%
<i>Total</i>	<i>45</i>	<i>100.0</i>	<i>35</i>	<i>100.0</i>	<i>32</i>	<i>100.0</i>	<i>36</i>	<i>100.0</i>	<i>29</i>	<i>100.0</i>	<i>-19.4%</i>	<i>-10.4%</i>
<b>Incapacitating</b>												
Less than 1 year old	7	2.9	12	5.2	11	4.7	9	4.6	10	4.1	11.1%	9.3%
1 to 3 years old	27	11.0	28	12.0	28	12.0	17	8.7	28	11.6	64.7%	0.9%
4 to 7 years old	44	18.0	41	17.6	47	20.1	30	15.3	53	21.5	76.7%	4.8%
8 to 15 years old	167	68.2	152	65.2	148	63.2	140	71.4	152	62.8	8.6%	-2.3%
<i>Total</i>	<i>245</i>	<i>100.0</i>	<i>233</i>	<i>100.0</i>	<i>234</i>	<i>100.0</i>	<i>196</i>	<i>100.0</i>	<i>243</i>	<i>100.0</i>	<i>24.0%</i>	<i>-0.2%</i>
<b>Non-incapacitating</b>												
Less than 1 year old	168	4.2	213	5.4	179	4.5	168	4.6	167	4.5	-0.6%	-0.1%
1 to 3 years old	433	10.7	496	12.5	492	12.3	445	12.1	449	12.2	0.9%	0.9%
4 to 7 years old	878	21.7	765	19.3	797	19.9	788	21.5	796	21.6	1.0%	-2.4%
8 to 15 years old	2,560	63.4	2,485	62.8	2,532	63.3	2,264	61.8	2,279	61.7	0.7%	-2.9%
<i>Total</i>	<i>4,039</i>	<i>100.0</i>	<i>3,959</i>	<i>100.0</i>	<i>4,000</i>	<i>100.0</i>	<i>3,665</i>	<i>100.0</i>	<i>3,691</i>	<i>100.0</i>	<i>0.7%</i>	<i>-2.2%</i>
<b>Other injuries</b>												
Less than 1 year old	19	20.9	12	18.2	18	30.0	12	23.1	10	20.0	-16.7%	-14.8%
1 to 3 years old	16	17.6	12	18.2	11	18.3	15	28.8	14	28.0	-6.7%	-3.3%
4 to 7 years old	10	11.0	10	15.2	9	15.0	2	3.8	5	10.0	150.0%	-15.9%
8 to 15 years old	46	50.5	32	48.5	22	36.7	23	44.2	21	42.0	-8.7%	-17.8%
<i>Total</i>	<i>91</i>	<i>100.0</i>	<i>66</i>	<i>100.0</i>	<i>60</i>	<i>100.0</i>	<i>52</i>	<i>100.0</i>	<i>50</i>	<i>100.0</i>	<i>-3.8%</i>	<i>-13.9%</i>
<b>Not injured</b>												
Less than 1 year old	11	1.2	15	1.7	11	1.6	9	1.5	10	1.5	11.1%	-2.4%
1 to 3 years old	35	3.8	19	2.1	26	3.8	29	4.9	24	3.6	-17.2%	-9.0%
4 to 7 years old	128	14.0	35	3.9	28	4.1	31	5.3	24	3.6	-22.6%	-34.2%
8 to 15 years old	738	80.9	824	92.3	620	90.5	520	88.3	608	91.3	16.9%	-4.7%
<i>Total</i>	<i>912</i>	<i>100.0</i>	<i>893</i>	<i>100.0</i>	<i>685</i>	<i>100.0</i>	<i>589</i>	<i>100.0</i>	<i>666</i>	<i>100.0</i>	<i>13.1%</i>	<i>-7.6%</i>

Source: Indiana State Police

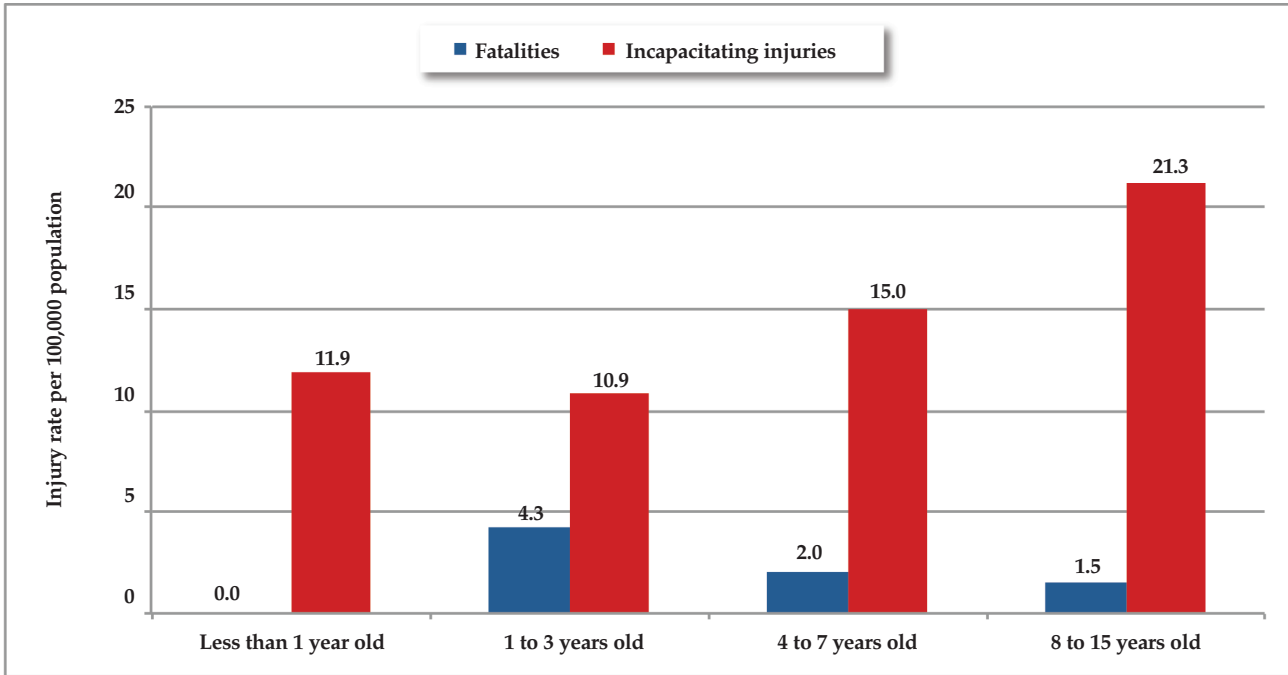
Notes:

- 1) Includes individuals identified as drivers, injured occupants, pedestrians, and pedalcyclists.
- 2) The less than 1 year old age group does not include data records coded as drivers aged 0 years, due to unavailable or invalid age reporting. Unknown age or birthdate often result in a default value of "zero years" in the ARIES database.
- 2) The not injured category in ARIES should include only uninjured drivers; nonetheless, vehicle occupants are sometimes reported as not injured on the crash report completed by the investigating officer.

Figure 2 shows rates of children killed or seriously injured in collisions (per 100,000 population). In 2012, the rate of fatalities in collisions (per 100,000 population) was highest in the 1- to 3-year-old age group (4.3). Among all age groups, rates of serious injury were over 10 per 100,000. In the 4- to 7-year-old age group the rate of incapacitating injury was 15.0 per 1,000; the rate of incapacitating injury was 21.3 in the 8- to 15-year old age group.

The number of children killed or injured in traffic collisions by person type (drivers, vehicle occupants, pedestrians, and pedalcyclists) is depicted in Table 3. In 2012, child *pedestrians* experiencing incapacitating injuries (38) accounted for 16 percent of all serious injuries. Between 2011 and 2012, the number of child pedestrian fatalities decreased by 50 percent, from 8 to 4. *Drivers* experiencing incapacitating injuries also declined, by 28 percent between 2011 and 2012.<sup>1</sup>

**Figure 2. Rates of children killed and seriously injured in Indiana collisions, per 100,000 population, 2012**



Sources: Indiana State Police; U.S. Census Bureau

Note: U.S. Census 2011 data were used to calculate rates; 2012 population estimates by age were yet not available.

**Table 3. Children killed or injured in Indiana traffic collisions by injury status and person type, 2008-2012**

	2008		2009		2010		2011		2012		Annual rate of change	
	Count	%	Count	%	Count	%	Count	%	Count	%	2011-12	2008-12
<b>Fatal</b>												
Driver	3	6.7	3	8.6	2	6.3	0	0.0	1	3.4	NA	-24.0%
Injured occupant	29	64.4	22	62.9	20	62.5	25	69.4	24	82.8	-4.0%	-4.6%
Pedalcyclist	4	8.9	0	0.0	1	3.1	3	8.3	0	0.0	-100.0%	-100.0%
Pedestrian	9	20.0	10	28.6	9	28.1	8	22.2	4	13.8	-50.0%	-18.4%
<i>Total</i>	45	100.0	35	100.0	32	100.0	36	100.0	29	100.0	-19.4%	-10.4%
<b>Incapacitating</b>												
Driver	13	5.3	22	9.4	15	6.4	18	9.2	13	5.3	-27.8%	0.0%
Injured occupant	163	66.5	148	63.5	153	65.4	123	62.8	170	70.0	38.2%	1.1%
Pedalcyclist	22	9.0	19	8.2	20	8.5	18	9.2	22	9.1	22.2%	0.0%
Pedestrian	47	19.2	44	18.9	46	19.7	37	18.9	38	15.6	2.7%	-5.2%
<i>Total</i>	245	100.0	233	100.0	234	100.0	196	100.0	243	100.0	24.0%	-0.2%
<b>Non-incapacitating injuries</b>												
Driver	150	3.7	156	3.9	119	3.0	130	3.5	119	3.2	-8.5%	-5.6%
Injured occupant	3,277	81.1	3,258	82.3	3,361	84.0	3,049	83.2	3,109	84.2	2.0%	-1.3%
Pedalcyclist	285	7.1	270	6.8	242	6.1	217	5.9	206	5.6	-5.1%	-7.8%
Pedestrian	327	8.1	275	6.9	278	7.0	269	7.3	257	7.0	-4.5%	-5.8%
<i>Total</i>	4,039	100.0	3,959	100.0	4,000	100.0	3,665	100.0	3,691	100.0	0.7%	-2.2%

Source: Indiana State Police

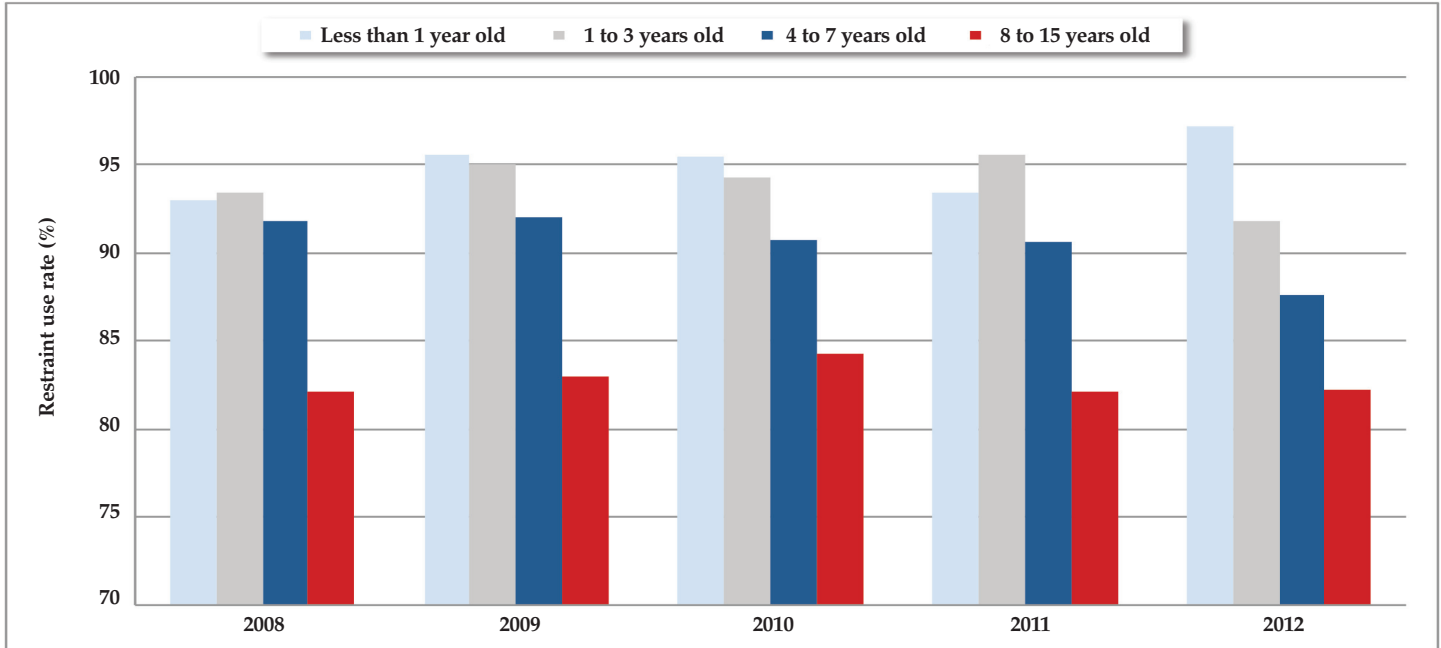


## RESTRAINT USAGE

Restraint use rates among children in traffic incidents tend to decline as children get older (Figure 3). In 2012, the 8- to 15-year-old age group had the lowest rate of restraint use (82 percent). Between 2008 and 2012, this age group exhibited rates of restraint use consistently lower than 85 percent. The highest rate of restraint use over the five-year period was 97 percent among children less than 1 year old in 2012.

Table 4 shows the risk of serious injury when child vehicle occupants were unrestrained. In 2012, among all properly restrained children involved in collisions, 4 percent were seriously injured, while 13 percent of unrestrained child occupants were seriously injured. This indicates that a child is 3 times more likely to be seriously injured when unrestrained. Unrestrained occupants in the 4- to 7-year-old age group were 4.3 times more likely to be seriously injured than children in the same age group who were properly restrained.

Figure 3. Restraint use among children involved in Indiana traffic collisions, by age group, 2008-2012



Source: Indiana State Police

Note: Restraint use rates are calculated based on individuals identified as driver or injured occupant where restraint use was known.

Table 4. Risk of serious injury to child vehicle occupants involved in Indiana collisions, by restraint use, 2012

Age group	Restrained?	Serious injuries	Non-serious injuries	Total	% Serious injury	Relative risk	Lower limit	Upper limit
Less than 1 year old	No	0	5	5	0.0%	0.0	na	na
	Yes	3	163	166	1.8%			
1 to 3 years old	No	6	26	32	18.8%	3.3	1.4	7.4
	Yes	24	393	417	5.8%			
4 to 7 years old	No	14	73	87	16.1%	4.3	2.3	8.0
	Yes	24	622	646	3.7%			
8 to 15 years old	No	43	320	363	11.8%	2.7	1.9	3.9
	Yes	68	1,493	1,561	4.4%			
Total	No	63	424	487	12.9%	3.0	2.3	4.1
	Yes	119	2,671	2,790	4.3%			

Source: Indiana State Police

Notes:

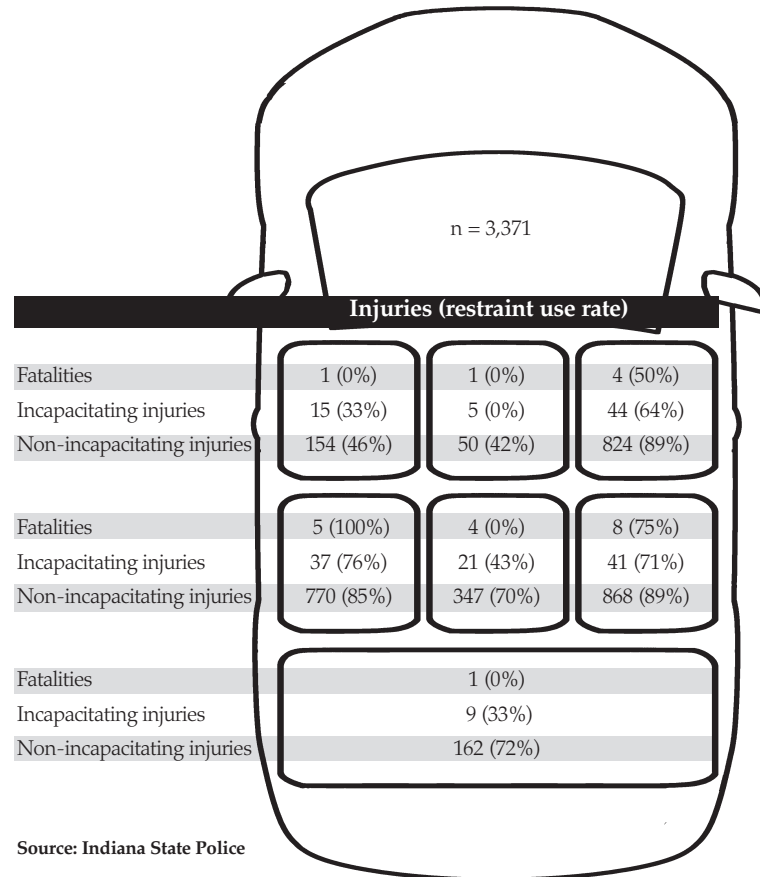
- 1) The less than 1 year old age group does not include data records coded as drivers aged 0 years, due to unavailable or invalid age reporting. Unknown age or birthdate often result in a default value of "zero years" in the ARIES database.
- 2) Serious injuries include records identified as fatal or incapacitating.
- 3) Non-serious injuries include those reported as non-incapacitating, possible, refused, and unknown in the injury status field of the crash report.
- 4) Risk of serious injury is the ratio of the percent of children in each age group seriously injured who were restrained compared to the percent seriously injured who were unrestrained. Ratios greater than 1 indicate a higher risk of serious injury for individuals who were unrestrained.
- 5) Relative risk ratios are significant at  $p < 0.05$  for child age groups 1 to 3 years old, 4 to 7 years of age, and 8 to 15 years old. For example, in 95 out of 100 cases, the relative risk would fall within the lower and upper limit range presented.

# RESTRAINT USE AND SEATING POSITION

The number and restraint usage rates for children by injury type and seating position are shown in Figure 4. In 2012, the largest number of child fatalities occurred in the *rear-right* passenger seating position. Seventy-five percent of these 8 fatalities were properly restrained. The greatest number of incapacitating injuries was experienced by child passengers in the *front right* seating position (44); of those, 64 percent were properly restrained.

Approximately 23 percent of all child occupants sustaining serious injuries were identified as being in the *front right* seating position. The relative risk of serious injury was greater for unrestrained than for properly restrained child occupants in all seating positions, with the exception of the *front center* and *rear left* positions (Table 5). Child occupants seated in the *far back/sleeper* position who were unrestrained were 14.0 times more likely to suffer serious injuries than those properly restrained.

Figure 4. Children in Indiana collisions by injury status, seating position, and restraint use, 2012



Source: Indiana State Police

Notes:

- 1) Injuries include only children (ages 0-15) sustaining *fatal*, *incapacitating*, *non-incapacitating*, and *possible* injuries where valid seating position was identified.
- 2) Percentages depicted are the percentage of individuals reported as properly restrained by injury type in each seating position.

Table 5. Risk of serious injury to children involved in Indiana collisions, by seating position, 2012

Seating position	Restrained?	Serious injuries	Non-serious injuries	Total	% Serious injury	Relative risk	Lower limit	Upper limit
Front left (driver)	No	9	69	78	11.5%	1.8	0.6	5.2
	Yes	5	74	79	6.3%			
Front center	No	4	20	24	16.7%	na	na	na
	Yes	0	21	21	0.0%			
Front right	No	13	51	64	20.3%	5.2	3.8	9.4
	Yes	30	735	765	3.9%			
Rear left	No	7	82	89	7.9%	1.7	0.7	3.6
	Yes	33	661	694	4.8%			
Rear center	No	15	88	103	14.6%	4.2	1.9	9.2
	Yes	9	249	258	3.5%			
Rear right	No	7	62	69	10.1%	2.4	1.1	5.1
	Yes	35	783	818	4.3%			
Far back/sleeper	No	20	38	58	34.5%	13.9	4.3	44.9
	Yes	3	118	121	2.5%			
Total	No	75	410	485	15.5%	3.7	2.8	4.9
	Yes	115	2,641	2,756	4.2%			

Source: Indiana State Police

Notes:

- 1) Limited to children identified as *drivers* or *injured* occupants where valid seating position was reported and restraint use was known.
- 2) Serious injuries include records identified as *fatal* or *incapacitating*.
- 3) Non-serious injuries include those reported as *non-incapacitating*, *possible*, *refused*, and *unknown* in the injury status field of the crash report.
- 4) Risk of serious injury is the ratio of the percent of children in each seating position seriously injured who were restrained compared to the percent seriously injured who were unrestrained. Ratios greater than 1 indicate a higher risk of serious injury for individuals who were unrestrained.
- 5) Relative risk ratios are significant at  $p < 0.05$ , with the exception of *front left*, *front center*, and *rear left* seating positions. For example, in 95 out of 100 cases, the relative risk would fall within the lower and upper limit range presented.

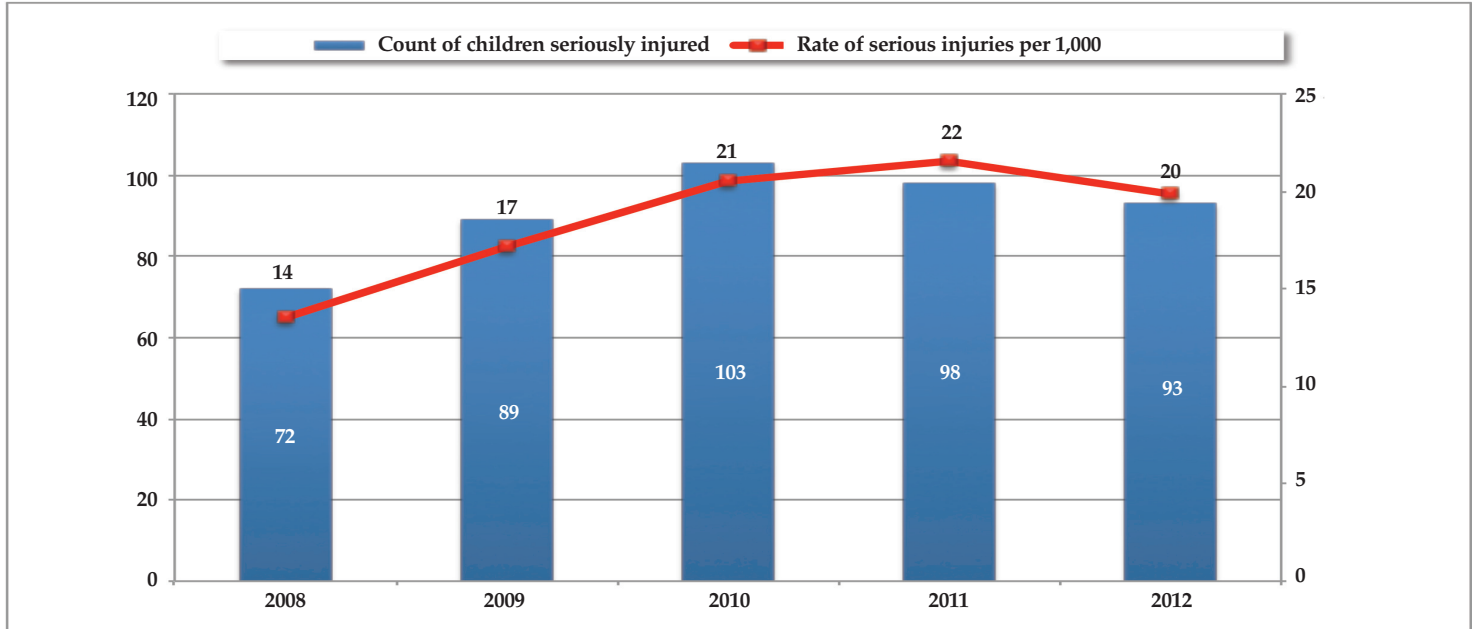


## ALCOHOL-RELATED COLLISIONS

In 2012, 93 children were involved in alcohol-impaired traffic collisions (Figure 5). The crashes involved a driver with a blood alcohol content (BAC) test result at or above 0.08 grams per deciliter (g/dL). Between 2008 and 2010, the number of children involved in alcohol-impaired collisions rose from 72 to 103. The number fell slightly in 2011 and 2012 to 98 and 93, respectively. Over the five-year period, the rate of child

involvement in alcohol-impaired collisions peaked in 2011 at 22 per 1,000 involved. Figure 6 shows the number and rate of serious injuries per 1,000 children involved in alcohol-impaired collisions. The rate rose from 83 serious injuries per 1,000 children involved in alcohol-impaired collisions in 2008 to a five-year high rate of 126 in 2010. In 2012, of the 11 children seriously injured in alcohol-impaired collisions, 1 was fatal and 10 were incapacitating injuries.

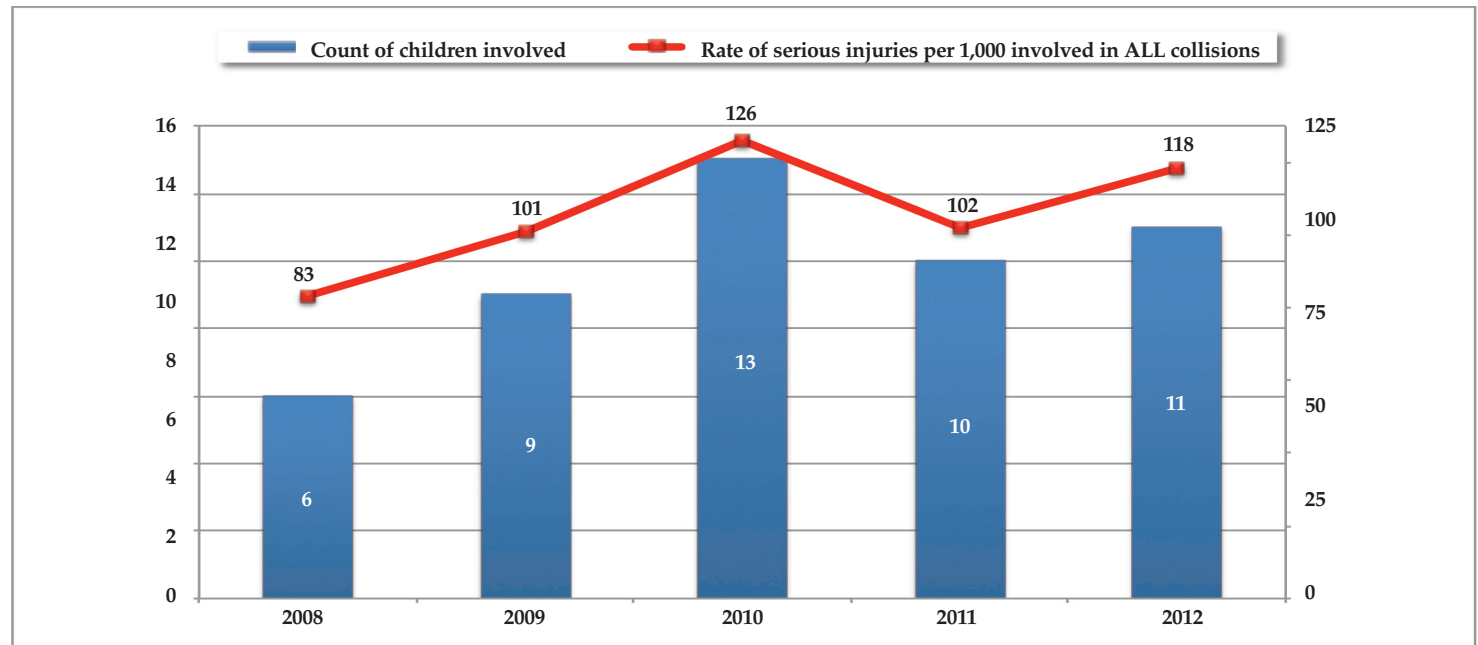
Figure 5. Children involved in Indiana alcohol-impaired collisions, 2008-2012



Source: Indiana State Police

Note: Serious injuries are defined as children suffering *fatal* or *incapacitating* injuries.

Figure 6. Children seriously injured in Indiana alcohol-impaired collisions, 2008-2012



Source: Indiana State Police

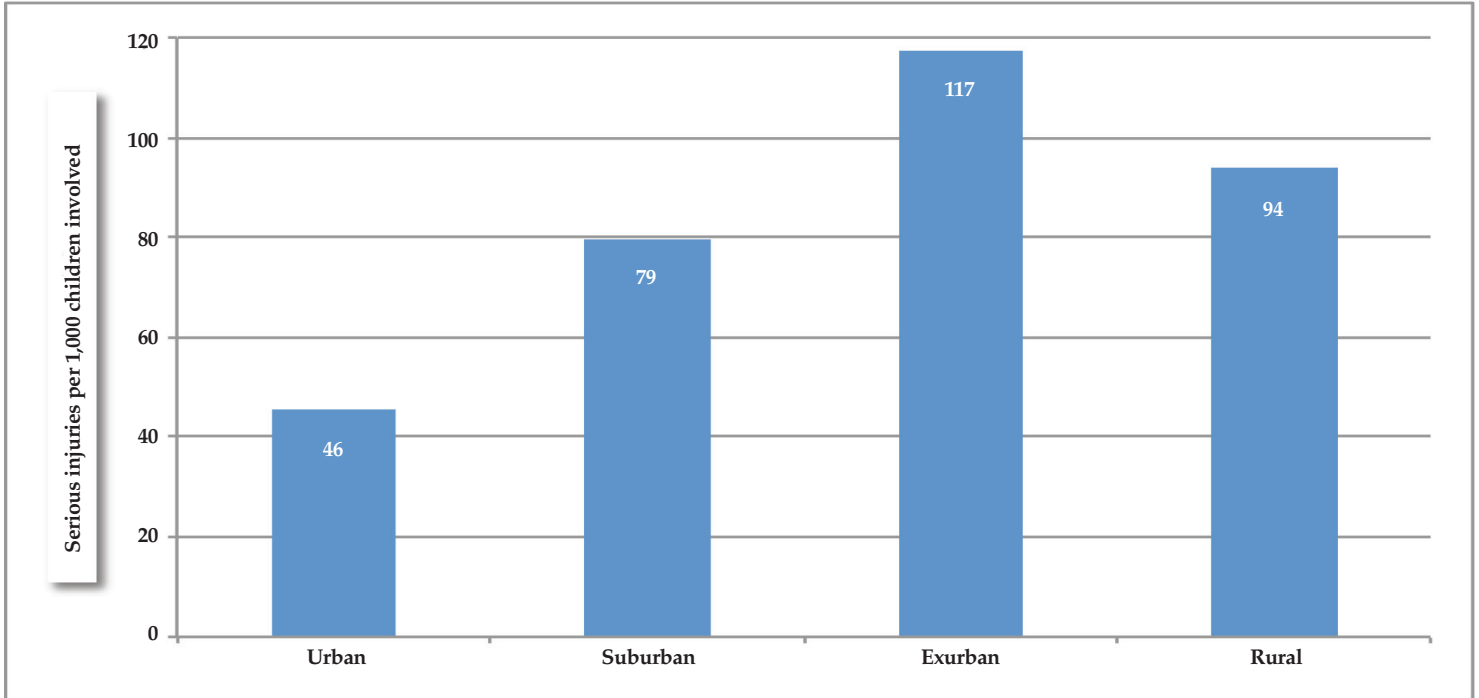
Note: Serious injuries are defined as children suffering *fatal* or *incapacitating* injuries.

# GEOGRAPHY OF TRAFFIC INJURIES

In 2012, the serious injury rate per 1,000 children involved in traffic collisions in Indiana was lowest in *urban* (46 per 1,000) and *suburban* (79) areas and highest in *rural* (94) and *exurban* (117) locales (Figure 7). Maps

1 to 4 depict rates of child traffic injuries and fatalities by age group and county. The mean traffic injury/fatality rate per 1,000 for the 1- to 3-year-old age group was 1.9 (Map 2), while the mean rate for the 8- to 15-year-old age group was 3.3 (Map 4).

Figure 7. Children seriously injured in Indiana traffic collisions, by locale, 2012



Sources: Indiana State Police; U.S. Census Bureau

Note: Serious injuries are defined as children suffering *fatal* or *incapacitating* injuries.



# TRAFFIC SAFETY FACTS

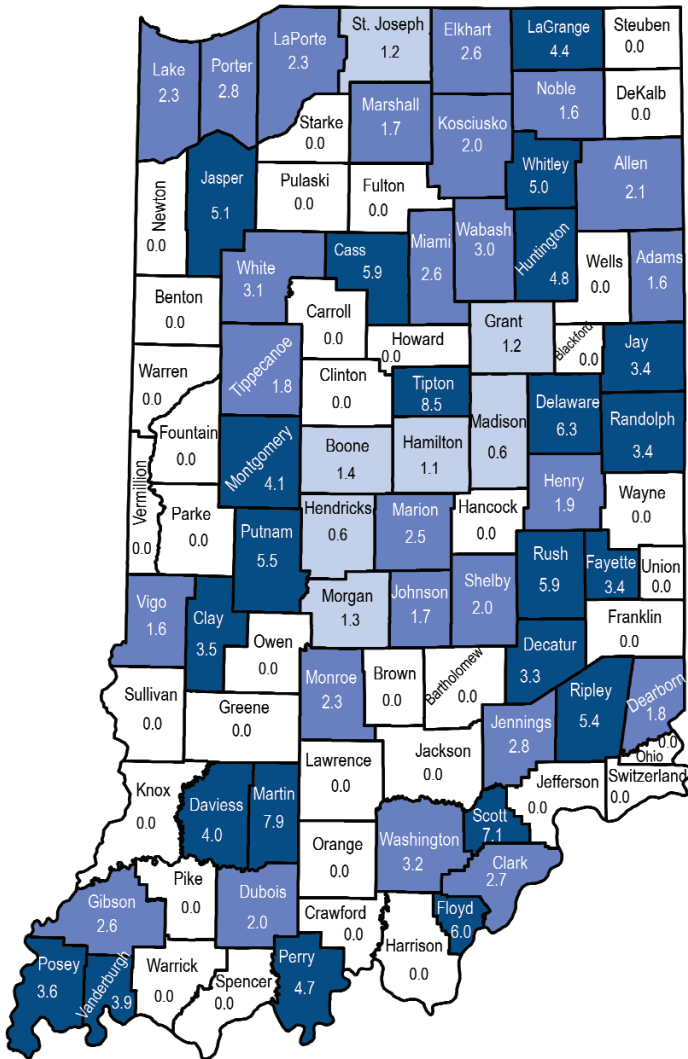
Child injury/fatality rates in Indiana traffic collisions by county (2012)

Map 1. Less than 1 year old

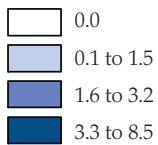
Median county injury/fatality rate = 1.6

Mean county injury/fatality rate = 2.0

n=177 children involved



Injury/fatality rate per 1,000 population

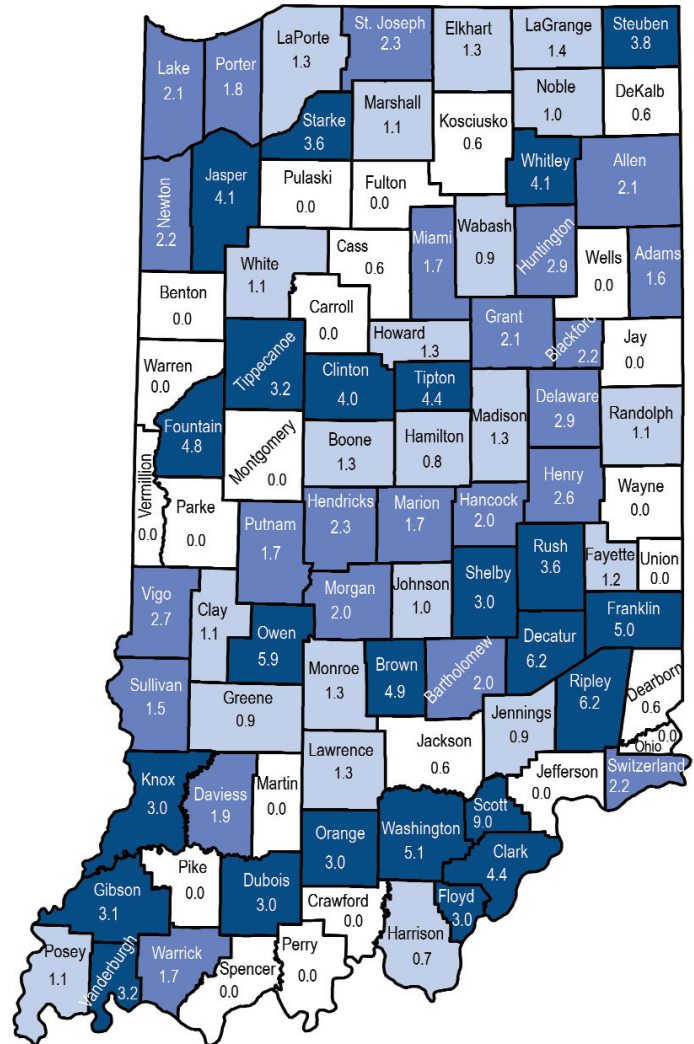


Map 2. Ages 1 to 3 years old

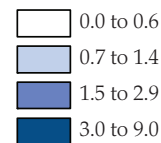
Median county injury/fatality rate = 1.5

Mean county injury/fatality rate = 1.9

n=488 children involved



Injury/fatality rate per 1,000 population

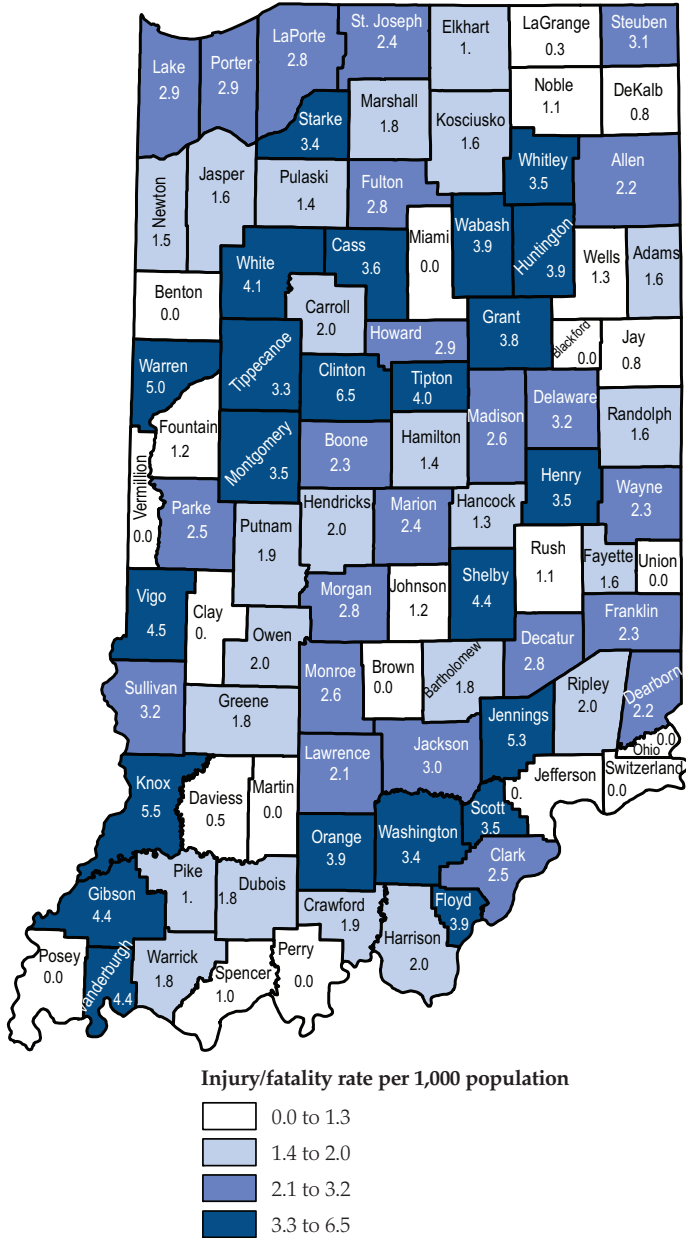


Sources: Indiana State Police; U.S. Census Bureau

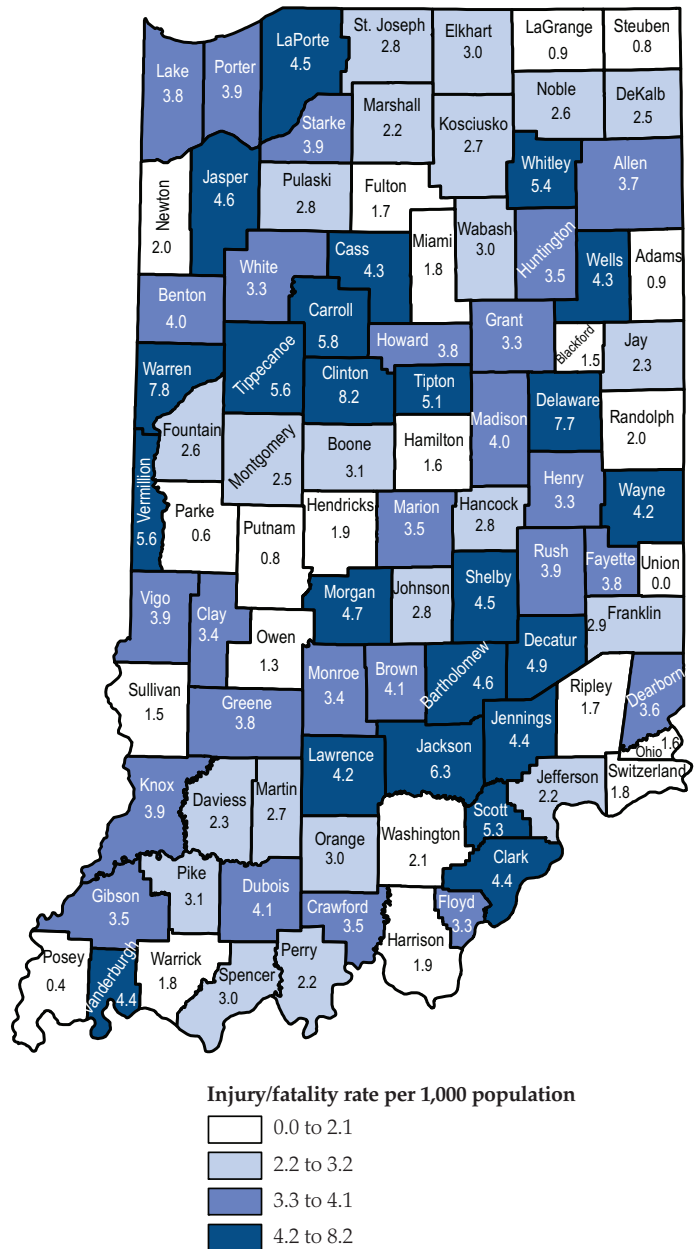
Note: Includes child injuries reported as fatal, incapacitating, non-incapacitating, and possible.



**Map 3. Ages 4 to 7 years old**  
 Median county injury/fatality rate = 2.1  
 Mean county injury/fatality rate = 2.2  
 n=856 children involved



**Map 4. Ages 8 to 12 years old**  
 Median county injury/fatality rate = 3.3  
 Mean county injury/fatality rate = 3.3  
 n=2,442 children involved



Sources: Indiana State Police; U.S. Census Bureau

Note: Includes child injuries reported as fatal, incapacitating, non-incapacitating, and possible.



## END NOTES

1. Due to possible ARIES reporting errors designating very young children as drivers, this fact sheet's analysis does not include children aged '0' who were categorized as drivers. It is possible that other child age groups include similar miscategorizations.

## DEFINITIONS

**Annual rate of change (ARC)** — The rate that a beginning value must increase/decrease each period (e.g., month, quarter, year) in a time series to arrive at the ending value in the time series. ARC is a "smoothed" rate of change because it measures change in a variable as if the change occurred at a steady rate each period with compounding. For example, to measure change in a variable from 2008 to 2012, it is calculated as  $(\text{Value in 2012} / \text{Value in 2008})^{1/4} - 1$ .

**Locale** — *Urban* is defined as Census 2000 Urban Areas (2007-2009) or Census 2010 Urban Areas (2010-2011), *suburban* as areas within 2.5 miles of urban boundaries, *exurban* as areas within 2.5 miles of suburban boundaries, and *rural* as areas beyond exurban boundaries (i.e., everything else).

**Not injured** status includes individuals involved in collisions reported as *null* values in the injury status code field. NOTE: The *not injured* category in ARIES should include only uninjured *drivers*; nonetheless, *vehicle occupants* are sometimes reported as *not injured* on the crash report completed by the investigating officer.

**Non-incapacitating** injuries include those injuries reported as *non-incapacitating* or *possible*.

**Non-serious injuries** include those reported as *non-incapacitating*, *possible*, *refused*, and *unknown*.

**Other** injury status includes *not reported*, *unknown*, and *refused* (treatment) status codes.

**Restraint use** — Vehicle occupants injured in Indiana collisions are counted as having been restrained when the investigating officer selects any one of the following passenger vehicle safety equipment categories on the Indiana Crash Report: (1) *lap belt only*; (2) *harness*; (3) *airbag deployed and harness*; (4) *child restraint*; or (5) *lap and harness*.

**Serious injuries** are defined as children suffering *fatal* and *incapacitating* injuries.

## REFERENCES

National Center for Statistics and Analysis. (2013, May). *Children*, DOT HS 811 767, Washington DC: National Highway Traffic Safety Administration. Retrieved June 4, 2013 from <http://www-nrd.nhtsa.dot.gov/Pubs/811767.pdf>

National Highway Traffic Safety Administration. (2011, March). *Car Seat Recommendations for Children*.

## DATA SOURCES

Indiana State Police Automated Reporting Information Exchange System (ARIES), as of April 9, 2013.

U.S. Census Bureau, Annual Estimates of the Resident Population by Single-Year of Age and Sex for the United States and States (2011), provided by the Indiana Business Research Center, Indiana University.



# TRAFFIC SAFETY FACTS

This publication was prepared on behalf of the Indiana Criminal Justice Institute (ICJI) by the Indiana University Center for Criminal Justice Research (CCJR). Please direct any questions concerning data in this document to ICJI at 317-232-1233.

This publication is one of a series of fact sheets that, along with the annual Indiana Crash Fact Book, form the analytical foundation of traffic safety program planning and design in the state of Indiana. Funding for these publications is provided by ICJI and the National Highway Traffic Safety Administration.

An electronic copy of this document can be accessed via the CCJR website ([www.ccjr.iupui.edu](http://www.ccjr.iupui.edu)), the ICJI website ([www.in.gov/cji/](http://www.in.gov/cji/)), or you may contact the Center for Criminal Justice Research at 317-261-3000.



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## Traffic Safety Project

A collision produces three levels of data: collision, unit (vehicles), and individual. For this reason, readers should pay particular attention to the wording of statements about the data to avoid misinterpretations.

Designing and implementing effective traffic safety policies requires data-driven analysis of traffic collisions. To help in the policy-making process, the Indiana University Center for Criminal Justice Research is collaborating with the Indiana Criminal Justice Institute to analyze 2012 vehicle crash data from the Automated Reporting Information Exchange System (ARIES), maintained by the Indiana State Police. This marks the seventh year of this partnership. Research findings are summarized in a series of fact sheets on various aspects of traffic collisions, including alcohol-related crashes, trucks, dangerous driving, children, motorcycles, occupant protection, and drivers. An additional publication provides information on county and municipality data, and the final publication produced is the annual Indiana Crash Fact Book. These publications serve as the analytical foundation of traffic safety program planning and design in Indiana.

Indiana collision data are obtained from Indiana Crash Reports, as completed by law enforcement officers. As of December 31, 2012, approximately 99 percent of all collisions are entered electronically through ARIES. Trends in collisions incidence as reported in these publications incorporate the effects of changes to data elements on the Crash Report, agency-specific enforcement policy changes, re-engineered roadways, driver safety education programs, and other unspecified effects. If you have questions regarding trends or unexpected results, please contact the Indiana Criminal Justice Institute, Traffic Safety Division for more information.

## The Indiana Criminal Justice Institute

Guided by a Board of Trustees representing all components of Indiana's criminal and juvenile justice systems, the Indiana Criminal Justice Institute serves as the state's planning agency for criminal justice, juvenile justice, traffic safety, and victim services. ICJI develops long-range strategies for the effective administration of Indiana's criminal and juvenile justice systems and administers federal and state funds to carry out these strategies.

## The Governor's Council on Impaired & Dangerous Driving

The Governor's Council on Impaired & Dangerous Driving, a division of the Indiana Criminal Justice Institute, serves as the public opinion catalyst and the implementing body for statewide action to reduce death and injury on Indiana roadways. The Council provides grant funding, training, coordination, and ongoing support to state and local traffic safety advocates.

## Indiana University Public Policy Institute

The Indiana University Public Policy Institute (PPI) is a collaborative, multidisciplinary research institute within the Indiana University School of Public and Environmental Affairs (SPEA), Indianapolis. PPI serves as an umbrella organization for research centers affiliated with SPEA, including the Center for Urban Policy and the Environment and the Center for Criminal Justice Research. PPI also supports the Indiana Advisory Commission on Intergovernmental Relations (IACIR).

## The Center for Criminal Justice Research

The Center for Criminal Justice Research (CCJR), one of two applied research centers currently affiliated with the Indiana University Public Policy Institute, works with public safety agencies and social services organizations to provide impartial applied research on criminal justice and public safety issues. CCJR provides analysis, evaluation, and assistance to criminal justice agencies; and community information and education on public safety questions. CCJR research topics include traffic safety, crime prevention, criminal justice systems, drugs and alcohol, policing, violence and victimization, and youth.

## The National Highway Traffic Safety Administration (NHTSA)

NHTSA provides leadership to the motor vehicle and highway safety community through the development of innovative approaches to reducing motor vehicle crashes and injuries. The mission of NHTSA is to save lives, prevent injuries and reduce economic costs due to road traffic crashes, through education, research, safety standards and enforcement activity.

**Authors:** Rachel Thelin and Dona Sapp