



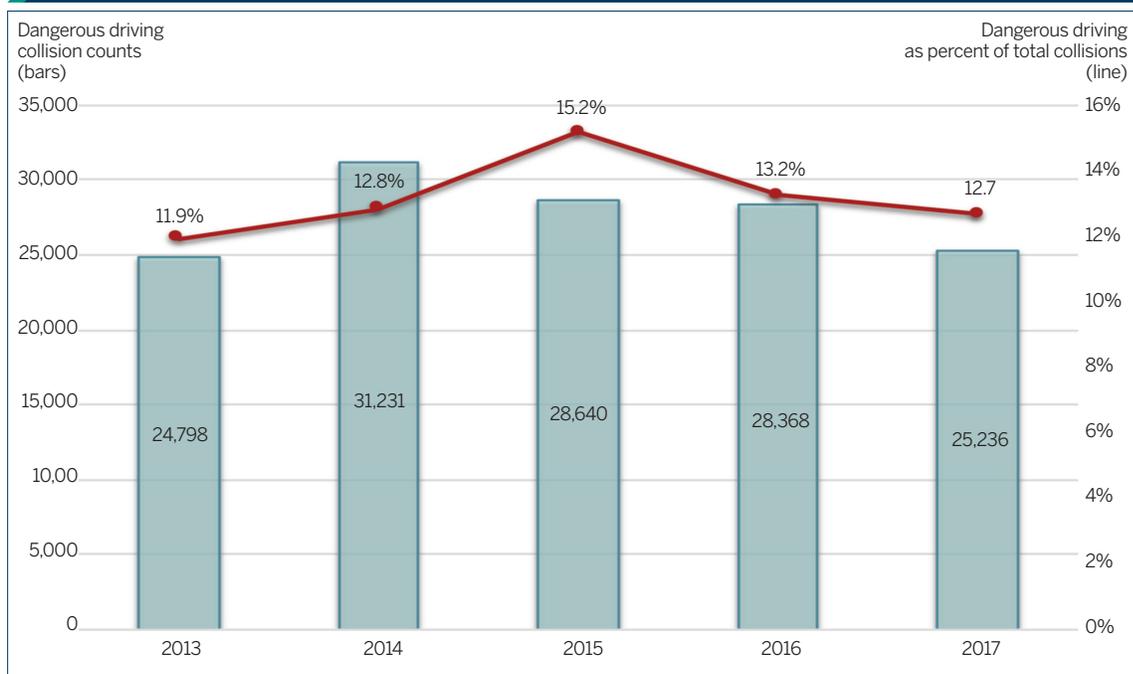
## IN 2017:

- **25,236 of the 219,112 traffic collisions that occurred in Indiana involved one or more driver actions defined as dangerous driving, an 11 percent decrease from 2016.**
- **Twenty-seven percent (248 of 911) of Indiana traffic fatalities occurred in dangerous driving collisions.**
- **Young drivers, ages 15 to 20, represented the highest percentage of drivers in crashes engaged in dangerous driving behaviors for both males and females.**
- **While speed-related fatalities decreased, aggressive driving fatalities increased 55 percent (from 47 in 2016 to 73 in 2017).**

A *dangerous driving* collision is defined as any collision where a driver takes one or more of the following actions: *aggressive driving*, *disregarding a signal*, or *speeding* (see last page for a full list of definitions, references, and data sources). This fact sheet summarizes Indiana *dangerous driving* data trends at state and county levels. Collision data come from the Indiana State Police Automated Reporting Information Exchange System (ARIES), as of April 6, 2018.

The annual count of Indiana collisions involving dangerous driving declined for the fourth consecutive year (25,236 collisions in 2017) (Figure 1). Dangerous driving collisions accounted for 12 percent of all Indiana crashes in 2017.

Figure 1. Indiana collisions that involve dangerous driving behaviors, 2013-2017



Source: Indiana State Police Automated Reporting Information Exchange System, as of April 6, 2018

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## GENERAL TRENDS

More than one quarter (220 of 834) of all fatal collisions involved *dangerous driving* in 2017 (Table 1), but the number of fatal dangerous driving collisions decreased nearly 3 percent. When looking closer at specific *dangerous driving* actions, 3 percent (6,452) of all 2017 Indiana collisions involved *aggressive driving*, and 2 percent (4,276) involved a driver *disregarding a signal*. Fatal collisions include a disproportionate share of drivers who are speeding. Eight percent (18,319) of all Indiana collisions involved speeding, while 22 percent (184/834) of all *fatal* collisions involved speeding (calculated from Table 1).

The percent of all Indiana traffic fatalities that occurred in a *dangerous driving* collision decreased from 29 percent in 2016 to 27 percent in 2017. Individuals killed in *dangerous driving* collisions increased slightly from 244 in 2016 to 248 in 2017 (Figure 2). The number of individuals killed in 2017 increased in both *aggressive driving* (fatalities increased 55 percent from 2016) and *disregarding a signal* (fatalities increased 25 percent) collisions, but decreased 4 percent in speeding collisions. Total injuries (fatal and non-fatal) in *dangerous driving* collisions declined slightly from 10,790 in 2016 to 10,365 in 2017 (Table 2).

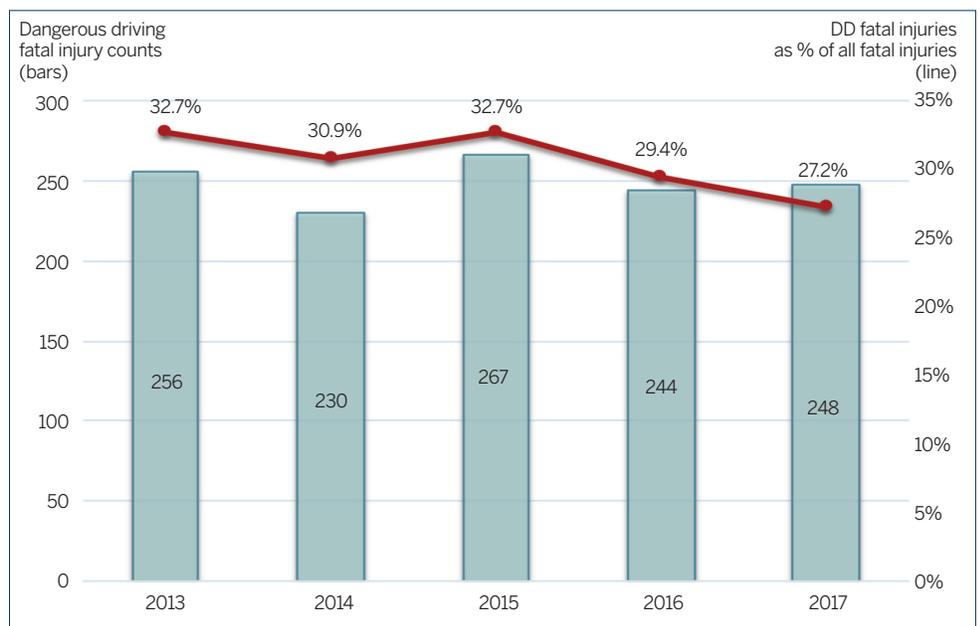
**Table 1. Indiana collisions, by dangerous driving involvement and collision severity, 2013-2017**

Dangerous driving type/ Collision severity	Count of collisions					Annual rate of change	
	2013	2014	2015	2016	2017	2016-17	2013-17
<b>Total collisions</b>	<b>193,236</b>	<b>205,769</b>	<b>216,492</b>	<b>223,905</b>	<b>219,112</b>	<b>-2.1%</b>	<b>3.2%</b>
Fatal	710	704	751	776	834	7.5%	4.1%
Non-fatal injury	32,852	33,860	34,468	35,336	34,219	-3.2%	1.0%
Property damage	159,674	171,205	181,273	187,793	184,059	-2.0%	3.6%
<b>All dangerous driving collisions</b>	<b>24,798</b>	<b>31,231</b>	<b>28,640</b>	<b>28,368</b>	<b>25,236</b>	<b>-11.0%</b>	<b>0.4%</b>
Fatal	222	209	239	226	220	-2.7%	-0.2%
Non-fatal injury	6,245	7,116	6,708	6,726	6,392	-5.0%	0.6%
Property damage	18,331	23,906	21,693	21,416	18,624	-13.0%	0.4%
<b>Dangerous driving as % of total</b>	<b>12.8%</b>	<b>15.2%</b>	<b>13.2%</b>	<b>12.7%</b>	<b>11.5%</b>	<b>-9.1%</b>	<b>-2.7%</b>
Fatal	31.3%	29.7%	31.8%	29.1%	26.4%	-9.4%	-4.2%
Non-fatal injury	19.0%	21.0%	19.5%	19.0%	18.7%	-1.9%	-0.4%
Property damage	11.5%	14.0%	12.0%	11.4%	10.1%	-11.3%	-3.1%
<b>Aggressive</b>	<b>5,043</b>	<b>6,215</b>	<b>6,355</b>	<b>6,776</b>	<b>6,452</b>	<b>-4.8%</b>	<b>6.4%</b>
Fatal	55	47	61	42	62	47.6%	3.0%
Non-fatal injury	1,342	1,581	1,568	1,667	1,726	3.5%	6.5%
Property damage	3,646	4,587	4,726	5,067	4,664	-8.0%	6.3%
<b>Disregard signal</b>	<b>4,172</b>	<b>4,200</b>	<b>4,319</b>	<b>4,439</b>	<b>4,276</b>	<b>-3.7%</b>	<b>0.6%</b>
Fatal	19	17	20	20	23	15.0%	4.9%
Non-fatal injury	1,523	1,541	1,557	1,610	1,566	-2.7%	0.7%
Property damage	2,630	2,642	2,742	2,809	2,687	-4.3%	0.5%
<b>Speed</b>	<b>18,598</b>	<b>24,822</b>	<b>22,013</b>	<b>21,221</b>	<b>18,319</b>	<b>-13.7%</b>	<b>-0.4%</b>
Fatal	185	184	204	199	184	-7.5%	-0.1%
Non-fatal injury	4,263	5,126	4,710	4,594	4,239	-7.7%	-0.1%
Property damage	14,150	19,512	17,099	16,428	13,896	-15.4%	-0.5%

Source: Indiana State Police Automated Reporting Information Exchange System, as of April 6, 2018

Note: *Dangerous driving* categories are not mutually exclusive. All *dangerous driving* may not equal total of individual categories.

**Figure 2. Fatal injuries in Indiana dangerous driving collisions, 2013-2017**



Source: Indiana State Police Automated Reporting Information Exchange System, as of April 6, 2018

## DRIVER AGE AND GENDER

*Dangerous driving* behavior can be linked to both age and gender of vehicle operators. Table 3 illustrates that the likelihood of drivers engaging in *dangerous driving* behavior decreases with age for both genders, and young drivers consistently account for a disproportionately high share of risky driving behaviors in collisions. Between 2013 and 2017, male drivers under the age of 25 regularly represented the highest proportion of drivers in *dangerous driving* collisions. In 2017, 12.1 percent of male drivers and 8.4 percent of female drivers in the 15- to 20-year-old age group engaged in *dangerous driving* behavior in collisions. The proportion of all drivers reported to be *driving dangerously* in collisions decreased for the fourth consecutive year for both male and female drivers.

**Table 2. Injuries in Indiana collisions, by dangerous driving involvement and injury status, 2013-2017**

Dangerous driving type/ Injury status	Count of injuries					Annual rate of change	
	2013	2014	2015	2016	2017	2016-17	2013-17
<b>Total injuries in ALL collisions</b>	<b>48,318</b>	<b>49,308</b>	<b>52,283</b>	<b>53,445</b>	<b>51,816</b>	<b>-3.0%</b>	<b>1.8%</b>
Fatal	784	745	816	829	911	9.9%	3.8%
Non-fatal	47,534	48,563	51,467	52,616	50,905	-3.3%	1.7%
<b>All dangerous driving collisions</b>	<b>9,984</b>	<b>11,006</b>	<b>10,973</b>	<b>10,790</b>	<b>10,365</b>	<b>-3.9%</b>	<b>0.9%</b>
Fatal	256	230	267	244	248	1.6%	-0.8%
Non-fatal	9,728	10,776	10,706	10,546	10,117	-4.1%	1.0%
<b>Dangerous driving as % of total</b>	<b>20.7%</b>	<b>22.3%</b>	<b>21.0%</b>	<b>20.2%</b>	<b>20.0%</b>	<b>-0.9%</b>	<b>-0.8%</b>
Fatal	32.7%	30.9%	32.7%	29.4%	27.2%	-7.5%	-4.4%
Non-fatal	20.5%	22.2%	20.8%	20.0%	19.9%	-0.8%	-0.7%
<b>Aggressive</b>	<b>2,306</b>	<b>2,638</b>	<b>2,818</b>	<b>2,958</b>	<b>3,120</b>	<b>5.5%</b>	<b>7.9%</b>
Fatal	64	54	67	47	73	55.3%	3.3%
Non-fatal	2,242	2,584	2,751	2,911	3,047	4.7%	8.0%
<b>Disregard signal</b>	<b>2,668</b>	<b>2,577</b>	<b>2,735</b>	<b>2,711</b>	<b>2,686</b>	<b>-0.9%</b>	<b>0.2%</b>
Fatal	20	19	23	20	25	25.0%	5.7%
Non-fatal	2,648	2,558	2,712	2,691	2,661	-1.1%	0.1%
<b>Speed</b>	<b>6,505</b>	<b>7,708</b>	<b>7,490</b>	<b>7,199</b>	<b>6,635</b>	<b>-7.8%</b>	<b>0.5%</b>
Fatal	216	201	228	215	207	-3.7%	-1.1%
Non-fatal	6,289	7,507	7,262	6,984	6,428	-8.0%	0.5%

Source: Indiana State Police Automated Reporting Information Exchange System, as of April 6, 2018

Note: *Dangerous driving* categories are not mutually exclusive. All *dangerous driving* may not equal total of individual categories.

**Table 3. Proportion of drivers in Indiana collisions engaged in dangerous driving behaviors, by age group and gender, 2013-2017**

Age group	2013		2014		2015		2016		2017	
	Male	Female								
15-20	13.4%	9.7%	14.9%	10.7%	14.0%	9.6%	13.3%	9.4%	12.1%	8.4%
21-24	11.4%	8.5%	13.5%	10.4%	12.3%	8.4%	11.4%	7.8%	10.2%	7.3%
25-34	9.3%	6.2%	11.6%	8.3%	9.5%	6.7%	9.0%	6.3%	7.8%	5.5%
35-44	6.5%	5.2%	8.3%	6.4%	6.9%	5.0%	6.8%	4.8%	5.9%	4.5%
45-54	5.3%	4.0%	7.0%	5.7%	5.8%	4.4%	5.3%	3.9%	4.6%	3.5%
55-64	4.4%	3.5%	6.0%	4.4%	4.8%	3.6%	4.2%	3.1%	3.8%	2.9%
65-74	3.7%	3.3%	4.7%	3.4%	4.1%	2.9%	3.5%	2.8%	3.4%	2.6%
75 +	3.6%	3.1%	4.5%	3.4%	3.8%	3.1%	3.7%	3.1%	3.4%	2.8%
<b>All ages</b>	<b>7.7%</b>	<b>5.8%</b>	<b>9.4%</b>	<b>7.2%</b>	<b>8.1%</b>	<b>5.9%</b>	<b>7.6%</b>	<b>5.6%</b>	<b>6.7%</b>	<b>5.0%</b>



Source: Indiana State Police Automated Reporting Information Exchange System, as of April 6, 2018

Note: Data limited to drivers with valid gender and age reported.

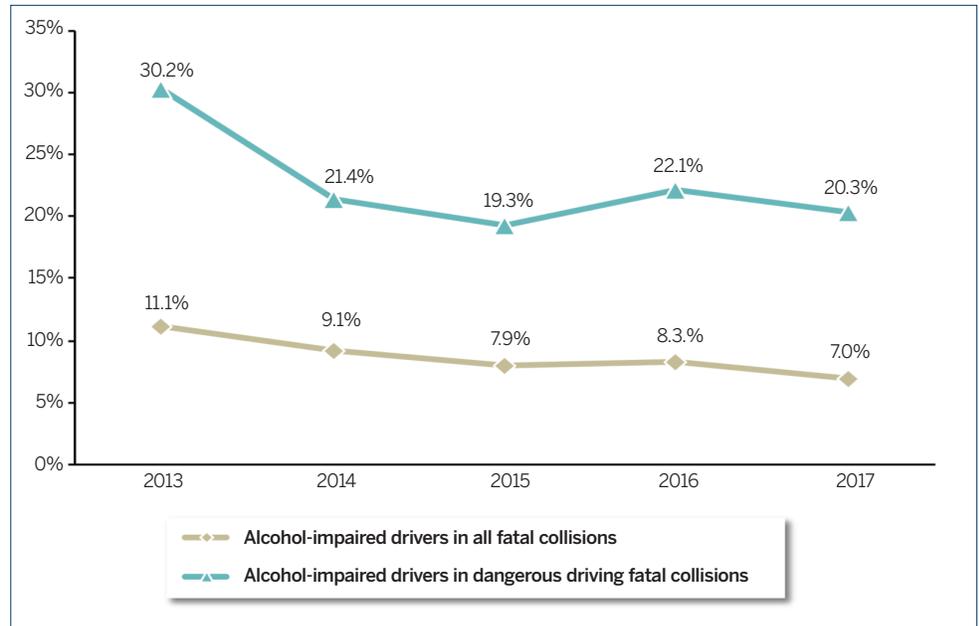
## DRIVER ALCOHOL IMPAIRMENT

Between 2013 and 2017, the percentage of alcohol-impaired drivers in fatal crashes is consistently disproportionately high in dangerous driving collisions (Figure 3). Among drivers engaged in dangerous driving behaviors in 2017 fatal crashes, 20 percent were alcohol-impaired, while only 7 percent of all drivers in fatal collisions were alcohol-impaired. Roughly, 1 in 5 drivers involved in fatal dangerous driving collisions were alcohol-impaired.

## GEOGRAPHY OF DANGEROUS DRIVING IN INDIANA

Map 1 shows the percentage of county collisions that involved dangerous driving in 2017. The map illustrates clusters of counties with the highest dangerous driving collision rates located in the northern half of the state. Tipton County, located in north central Indiana, had the highest percentage of dangerous driving collisions (20.4 percent), while Sullivan County, located in western Indiana, had the lowest percentage of dangerous driving collisions (3.5 percent). The median rate of county dangerous driving collisions was 9.9 percent, and the mean rate was 10.1 percent.

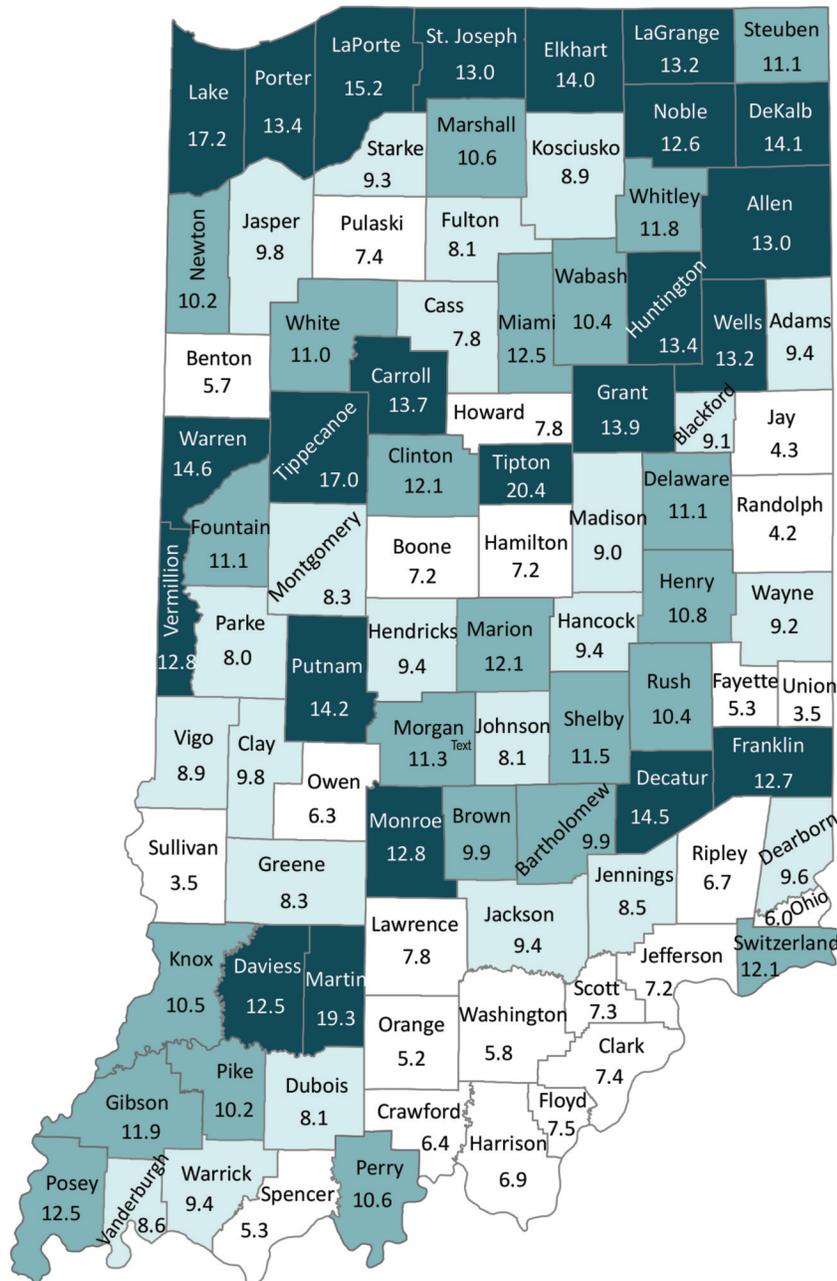
**Figure 3. Percentage of alcohol-impaired drivers in Indiana fatal collisions, by dangerous driving involvement, 2013-2017**



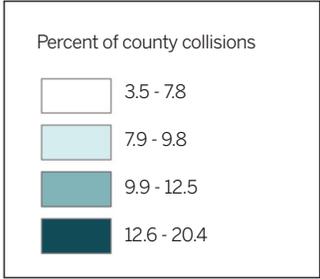
Source: Indiana State Police Automated Reporting Information Exchange System, as of April 6, 2018

Note: Alcohol-impaired includes drivers with a BAC of 0.08 g/dL or higher.

Map 1. Percentage of county collisions that involved dangerous driving behavior, 2017



Median percent = 9.9  
 Mean percent = 10.1  
 n = 25,236 dangerous driving collisions



Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of April 6, 2018

## DEFINITIONS

**Aggressive driving** applies when the investigating officer determines that a driver was engaged in at least two of the following: *Unsafe speed; speed too fast for weather conditions; failing to yield right of way; disregarding a traffic signal/sign; improper passing/turning/lane usage; or following too closely*. Indiana Code IC 9-21-8-55 requires three or more of these and similar actions to be considered an aggressive-driving violation.

**Disregarding a traffic signal** applies when a vehicle driver was involved in a collision at an intersection of two or more roads and disregarded a traffic signal/sign.

**Speeding** applies when a vehicle driver was issued a speeding citation or driving at an unsafe speed, as indicated by *unsafe speed* or *speed too fast for weather conditions* as a contributing factor to the collision. Indiana Code 9-21-5-1 delineates this action from the legal perspective.

**Dangerous driving** in this factsheet applies when a driver takes any of the above actions in a collision.

**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 2013 to 2017, it is calculated as  $(\text{Value in 2017}/\text{Value in 2013})^{1/4} - 1$ .

**Non-fatal** collision severity applies when no fatalities and at least one *incapacitating, non-incapacitating, or possible* injury occurred.

**Non-fatal** injury includes *incapacitating, non-incapacitating, possible, not reported, and refused (treatment)* injury categories.

## DATA SOURCES

Indiana State Police Automated Reporting Information Exchange System (ARIES), as of April 6, 2018.

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

This publication is one of a series of publications that 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 PPI website (<http://trafficsafety.iupui.edu>), the ICJI website ([www.in.gov/cji/](http://www.in.gov/cji/)), or you may contact the PPI at 317-261-3000.

## Traffic Safety Project

Designing and implementing effective traffic safety policies requires data-driven analysis of traffic collisions. To help in the policy-making process, the Indiana University Public Policy Institute collaborates each year with the Indiana Criminal Justice Institute to analyze vehicle crash data from the Automated Reporting Information Exchange System (ARIES), maintained by the Indiana State Police. This marks the twelfth year of this partnership. Research findings are summarized in a series of publications on various aspects of traffic collisions, including alcohol-related crashes, commercial vehicles, dangerous driving, child passenger safety, motorcycles, occupant protection, and drivers. An additional publication provides detailed information for each county and municipality. 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. Crash reports for all Indiana collisions are entered electronically through ARIES. Collision trends 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. 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. 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.

## Indiana University Public Policy Institute

The IU Public Policy Institute delivers unbiased research and data-driven, objective, expert analysis to help public, private and nonprofit sectors make important decisions that directly impact quality of life in Indiana. Using the knowledge and expertise of our staff and faculty, we provide research and analysis that is free of political and ideological bias. A multidisciplinary institute within the Indiana University School of Public and Environmental Affairs (SPEA), our efforts also support the Indiana Advisory Commission on Intergovernmental Relations (IACIR).

## 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.



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