# INDIANA CRASH FACTS

## 2014

# INDIANA TRAFFIC SAFETY QUICK FACTS - 2014

➤ 205,532 traffic collisions resulting in injury or property damage occurred, a 6 percent increase from 2013.

➤ There were 702 fatal collisions in 2014 (resulting in 743 fatalities), a 1 percent decrease from 2013.

➤ 3,979 collisions (2 percent of all collisions) occurred in a work zone in 2014.

➤ 24,810 collisions (12 percent of all collisions) in 2014 were speed-related, representing a 33 percent increase from the 2013 number of collisions that were speed-related.

➤ 26 percent (184 of 702) of fatal collisions were speed-related.

➤ In 2014, there were 94 fatal crashes and 101 fatalities involving a vehicle driver legally impaired by alcohol (i.e., blood alcohol content at or above 0.08 g/dL).

➤ 13.4 percent (94 of 702) of fatal collisions involved a driver that was legally alcohol-impaired.

➤ The average economic cost of collisions involving an alcohol-impaired driver was $41,776.

➤ Collisions involving motorcycles decreased 3.3 percent in 2014, while fatal collisions involving motorcycles increased 7.9 percent (from 114 in 2013 to 123 in 2014).

➤ Overall collision counts were higher in Indiana *urban* (138,760) and *suburban* (27,129) locales than in surrounding *exurban* (12,953) and *rural* (14,827) areas.

➤ Rates of fatal and incapacitating injury collisions per 1,000 total collisions were higher in *suburban* (38 per 1,000), *exurban* (39 per 1,000), and *rural* (41) locales than in areas designated as *urban* (20).

➤ January had the highest frequency of collisions among all months (23,532, or 11 percent of all collisions in 2014).

➤ The 15 to 20 year old age group had the highest rate of drivers involved in all collisions in 2014 (1,178 per 10,000 licensed drivers).

➤ 20 children (ages 14 and under) were killed in 2014 collisions, a 43 percent decrease from 2013.

➤ 89 non-motorists were killed in collisions in 2014 (76 pedestrians and 13 pedalcyclists).

➤ 53 percent of passenger vehicle occupants killed in collisions were not wearing seatbelts.*

➤ In 2014, the economic costs of motor vehicle collisions in Indiana approached $3.8 billion.

*Passenger vehicles include *passenger cars, pickup trucks, SUVs,* and *vans.*

Source:   Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

# INTRODUCTION AND ACKNOWLEDGEMENTS

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 (PPI) has collaborated with the Indiana Criminal Justice Institute (ICJI) to analyze data from the Automated Reporting Information Exchange System (ARIES) database maintained by the Indiana State Police. Research findings have been summarized in a series of Fact Sheets on various aspects of traffic collisions, including alcohol-impaired crashes, children, motorcycles, trucks, dangerous driving, occupant protection, and young drivers. Portions of the content in those reports and in this Crash Fact Book are based on guidelines provided by the U.S. National Highway Traffic Safety Administration (NHTSA).

The *Indiana Officer's Standard Crash Report*, completed by local and state law enforcement officers, contains over 200 data items for each collision reported. These include the date, time and location of the collision, the types of vehicle(s) involved, a description of the events prior to the collision, conditions at the time of the collision, as well as information on the driver and other passengers, pedestrians, pedalcyclists, and animal-drawn vehicle occupants involved in the collision. These statistics are used to inform the public, as well as state and national policy-makers, on matters of road safety and serve as the analytical foundation of traffic safety program planning and design in Indiana.

PPI would like to thank the Indiana Criminal Justice Institute, NHTSA, the Federal Highway Administration (FHWA), the Indiana State Police, and Appriss for their continued support and guidance throughout the process of creating these reports. PPI would also like to acknowledge the assistance and cooperation of the Indiana Bureau of Motor Vehicles in providing data on Indiana registered vehicles and licensed drivers and to the Indiana Department of Transportation for the vehicle miles traveled data.

Funding for these publications is provided by the Indiana Criminal Justice Institute and the National Highway Traffic Safety Administration. An electronic copy of the Fact Sheets and this document can be accessed via the PPI website (http://policyinstitute.iu.edu/), the ICJI traffic safety website (www.in.gov/cji/), or you may contact the IU Public Policy Institute at 317-261-3000. This publication may be reproduced free of charge.

**NOTES:**
**Data discrepancies may exist between the 2014 Indiana traffic safety reports and previous traffic safety publications due to updates to the Indiana State Police ARIES data that have occurred since the original publication dates. The most recent ARIES upgrade added a clarification to reporting officers on the definition of *incapacitating* injuries criteria to include "transported from scene for treatment"; therefore, 2014 increases in *incapacitating* injuries should be interpreted with caution. Additionally, when considering reported decreases in 2014 *alcohol-impaired* crashes and fatalities, it is important to note that these numbers are likely to increase once BAC results reported after the March 23, 2015, extract are analyzed.**

September 28, 2015

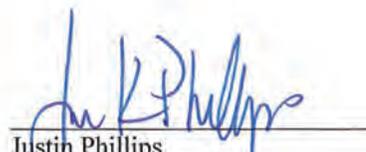Dear Traffic Safety Partners,

Over the past several years there have been great strides towards improving traffic safety throughout Indiana. Unfortuantely a closer look at the data reveals some disturbing trends in a small number of driver demographics around the state. Motorcyclists, distracted drivers, and rural populations continue to be overrepresented in the categories of crashes, injuries, and fatalities. The 2014 traffic safety fact sheets and this publication, the *Indiana Crash Facts* book, provide accurate, relevant, and timely data for addressing these problematic areas.

One of the more interesting items the Traffic Safety Division (TSD) and the other partners have used is the breakdown of motor vehicle collisions by location. These classifications have been developed by the Indiana University Public Policy Institute (PPI). The last chapter of this year's report provides a series of detailed tables and state-level maps illustrating county rates and percentages of crashes by a number of significant crash metrics for each of Indiana's 92 counties. The chapter also includes several exhibits that show each specific county's rank across each of the crash metrics examined, including total crashes per vehicle miles traveled, restraint use, speed-related crashes, impaired driving, motorcycle involvement, and young driver involvement.

The Criminal Justice Institute would like to express our gratitude to all of the traffic safety partners throughout Indiana. Your dedication to improving safety on our roadways is truly helping to save lives. The ongoing collaboration of all of our partners will ensure Hoosier motorists return home safely every trip, every time.

Sincerely,
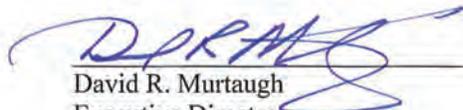
David R. Murtaugh
Executive Director
Indiana Criminal Justice Institute

Justin Phillips
Traffic Safety Director
Indiana Criminal Justice Institute

*101 West Washington St., Suite 1170 E, Indianapolis, Indiana 46204* 317-232-0157 * Fax 317-233-3912*
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## MEMBERS OF THE GOVERNOR'S COUNCIL ON IMPAIRED AND DANGEROUS DRIVING

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The Governor's Council on Impaired and 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.

**David R. Murtaugh,** Executive Director

**Justin K Phillips,** Director, Traffic Safety Division

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# PROBLEM IDENTIFICATION, 2014

The Traffic Safety Division (TSD) of the Indiana Criminal Justice Institute (ICJI), in conjunction with the Indiana Governor's Council on Impaired and Dangerous Driving, annually develops a set of benchmarks as part of the Highway Safety Plan (HSP) to assess the state of traffic safety in Indiana. These benchmarks correspond to priority program areas established by the National Highway Traffic Safety Administration (NHTSA), targeting the occurrence of fatal and injury collisions as they relate to injuries overall, impaired driving, safety equipment usage, young drivers, motorcycle safety, dangerous driving, children, and non-motorist injuries in collisions. Within each area, ICJI establishes specific annual goals and performance measures that relate to the occurrence of collisions and their impact on Indiana. ICJI also works closely with the Indiana Department of Transportation (INDOT) to ensure consistency in goal setting exists between the ICJI HSP, which approaches traffic safety from a policy and law enforcement perspective, and INDOT's Strategic Highway Safety Plan (SHSP), a document that approaches traffic safety from an engineering and transportation planning perspective.

## Goal Setting by the Indiana Criminal Justice Institute

Each year, ICJI develops a set of specific short-term and long-term goals to be included in the HSP for each Indiana problem area, and consistent with NHTSA's priority program areas. To assist with this effort, the Indiana University Public Policy Institute (Institute) prepares a set of baseline measures utilizing the most recent Indiana crash data, as well as historical data, maintained by the Indiana State Police in the Automated Reporting and Information Exchange System (ARIES). A summary of these measures are presented in Table 1.1. Indiana is seeing positive trends (2010 to 2014) related to a number of these metrics. Most notably, the number of Indiana traffic deaths decreased 5 percent in 2014. Impaired driving fatalities, young driver involvement in fatal crashes, and child traffic fatalities are also on the decline. Both speed-related traffic fatalities and motorcyclist fatalities increased annually on average between 2010 and 2014 at 8 percent and 3 percent, respectively.

Additional information is also provided to ICJI in the traffic safety fact sheet series and custom data requests produced annually by the Institute. It is important to note that the most recent ARIES upgrade added a clarification to reporting officers on the definition of incapacitating injuries criteria to include "transported from scene for treatment"; therefore, 2014 increases in incapacitating injuries should be interpreted with caution throughout this publication.

*NOTE: Subsequent sections include a general discussion of goals identified in the FY 2016 Indiana Highway Safety Plan. This document, produced annually by ICJI, uses data from the 2014 traffic safety fact sheets, as well as a number of custom data requests, produced by the Indiana University Public Policy Institute. These publications, including this Crash Book, were produced using the collision dataset current as of March 23, 2015. Discrepancies between figures presented in previous-year Crash Books are due to updates to the collision dataset since the original date of these publications. For more details on specific goals, please refer to the FY 2016 Indiana Highway Safety Plan.*

| Table 1.1. Performance goals and metrics for Indiana's Highway Safety Plan, 2016 |

| Goals and performance measures | HISTORICAL | | | | MOST RECENT (2014) | Annualized rates of change | |
|---|---|---|---|---|---|---|---|
| | 2010 | 2011 | 2012 | 2013 | | 2013-14 | 2010-14 |
| **Goal: Reduce total fatalities** | | | | | | | |
| Count of fatalities | 753 | 750 | 781 | 784 | 743 | -5.2% | -0.3% |
| Rate per 100K population | 11.60 | 11.51 | 11.95 | 11.93 | 11.26 | -5.6% | -0.7% |
| Rate per 100M vehicle miles traveled (VMT) | 1.04 | 0.97 | 0.99 | 0.99 | 0.94 | -5.2% | -2.6% |
| *BY CRASH LOCALITY (where known)* | | | | | | | |
| Count of fatalities in URBAN areas | 292 | 279 | 283 | 282 | 299 | 6.0% | 0.6% |
| Rate per 10k involved in collisions | 13.95 | 13.10 | 13.03 | 12.73 | 12.72 | -0.1% | -2.3% |
| Count of fatalities in SUBURBAN areas | 139 | 189 | 220 | 232 | 179 | -22.8% | 6.5% |
| Rate per 10k involved in collisions | 44.35 | 56.14 | 64.76 | 63.32 | 44.69 | -29.4% | 0.2% |
| Count of fatalities in EXURBAN areas | 128 | 108 | 109 | 120 | 110 | -8.3% | -3.7% |
| Rate per 10k involved in collisions | 94.84 | 74.71 | 74.05 | 73.06 | 61.20 | -16.2% | -10.4% |
| Count of fatalities in RURAL areas | 123 | 135 | 154 | 141 | 120 | -14.9% | -0.6% |
| Rate per 10k involved in collisions | 79.35 | 79.92 | 88.07 | 75.57 | 60.81 | -19.5% | -6.4% |
| **Goal: Reduce incapacitating injuries** | | | | | | | |
| Count of incapacitating injuries | 3,449 | 3,414 | 3,816 | 3,441 | 5,493 | 59.6% | 12.3% |
| Rate per 100K population | 53.1 | 52.4 | 58.4 | 52.4 | 83.3 | 59.0% | 11.9% |
| Rate per 100M VMT | 4.77 | 4.41 | 4.85 | 4.34 | 6.92 | 59.6% | 9.8% |
| **Goal: Reduce alcohol involvement in crashes** | | | | | | | |
| Count of fatalities that involve an impaired driver (any vehicle) | 135 | 145 | 177 | 134 | 101 | -24.6% | -7.0% |
| Percent of all fatalities | 17.9% | 19.3% | 22.7% | 17.1% | 13.6% | -20.5% | -6.7% |
| Rate per 100M VMT | 0.19 | 0.19 | 0.23 | 0.17 | 0.13 | -24.6% | -9.1% |
| Count of fatalities that involve an impaired motorcycle operator | 25 | 40 | 41 | 15 | 15 | 0.0% | -12.0% |
| **Goal: Increase safety belt usage** | | | | | | | |
| Count of unrestrained occupants killed in passenger vehicles | 287 | 260 | 268 | 268 | 265 | -1.1% | -2.0% |
| Observed usage rate for occupants of all passenger vehicles in crashes | 90.8% | 90.6% | 90.6% | 90.6% | 91.4% | 0.8% | 0.2% |
| Observed usage rate for occupants of pickup trucks in crashes | 87.7% | 87.8% | 87.7% | 87.5% | 88.9% | 1.6% | 0.4% |
| **Goal: Reduce involvement of young drivers in fatal crashes** | | | | | | | |
| Count of drivers ages 15 to 20 in fatal crashes | 124 | 100 | 128 | 102 | 88 | -13.7% | -8.2% |
| **Goal: Reduce motorcyclist fatalities** | | | | | | | |
| Count of motorcycle and moped rider fatalities | 110 | 118 | 151 | 119 | 125 | 5.0% | 3.2% |
| Count of motorcycle and moped operators involved in fatal crashes | 112 | 121 | 149 | 116 | 125 | 7.8% | 2.8% |
| Rate per 10K registrations | 5.36 | 5.63 | 6.65 | 5.23 | 5.64 | 7.8% | 1.3% |
| Count of unhelmeted motorcycle fatalities | 92 | 100 | 122 | 100 | 98 | -2.0% | 1.6% |
| **Goal: Reduce the incidence of dangerous driving in crashes** | | | | | | | |
| Count of speed-related fatalities | 148 | 151 | 175 | 216 | 201 | -6.9% | 8.0% |
| Count of total crashes involving a driver disregarding a signal | 4,016 | 3,957 | 4,013 | 4,172 | 4,198 | 0.6% | 1.1% |
| **Goal: Reduce fatalities and incapacitating injuries for children** | | | | | | | |
| Count of children ages 14 and under killed | 29 | 30 | 27 | 35 | 20 | -42.9% | -8.9% |
| Count of children with incapacitating injuries | 196 | 152 | 207 | 193 | 305 | 58.0% | 11.7% |
| **Goal: Reduce non-motorist fatalities and incapacitating injuries** | | | | | | | |
| Count of pedestrian fatalities | 60 | 63 | 64 | 70 | 76 | 8.6% | 6.1% |
| Count of pedestrian incapacitating injuries | 252 | 240 | 222 | 205 | 303 | 47.8% | 4.7% |
| Count of pedalcyclist fatalities | 14 | 13 | 14 | 15 | 13 | -13.3% | -1.8% |
| Count of pedalcyclist incapacitating injuries | 82 | 82 | 97 | 82 | 89 | 8.5% | 2.1% |

Sources: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015; US Census Bureau; Federal Highway Administration; Indiana Bureau of Motor Vehicles

Notes:
1) The most recent ARIES upgrade added a clarification to reporting officers on the definition of incapacitating injuries criteria to include "transported from scene for treatment"; therefore, 2014 increases in incapacitating injuries should be interpreted with caution.
2) When considering the reported decreases in 2014 alcohol-impaired crashes and fatalities, it is important to note that these numbers are likely to increase once BAC results reported after the March 23, 2015, extract are analyzed.

## GOALS: Reducing fatalities and incapacitating injuries

The severity of a traffic collision is influenced by many factors, such as seatbelt usage, the speed at which vehicles are traveling, objects collided with, alcohol involvement, or emergency response times. Crashes in rural areas are more likely to result in fatalities largely due to these circumstances, as crashes are more likely to occur at higher speeds, with fixed objects that

increase the force of impact, and because of greater distance and longer travel times to and from the crash site by emergency care providers.

In Indiana, traffic fatality rates have generally decreased over the last 10 years. Indiana's rates of fatalities per 100,000 population reached an historic low in 2009 (10.8) and have leveled off

**Figure 1.1. Individuals killed in Indiana collisions, 2005-2014**
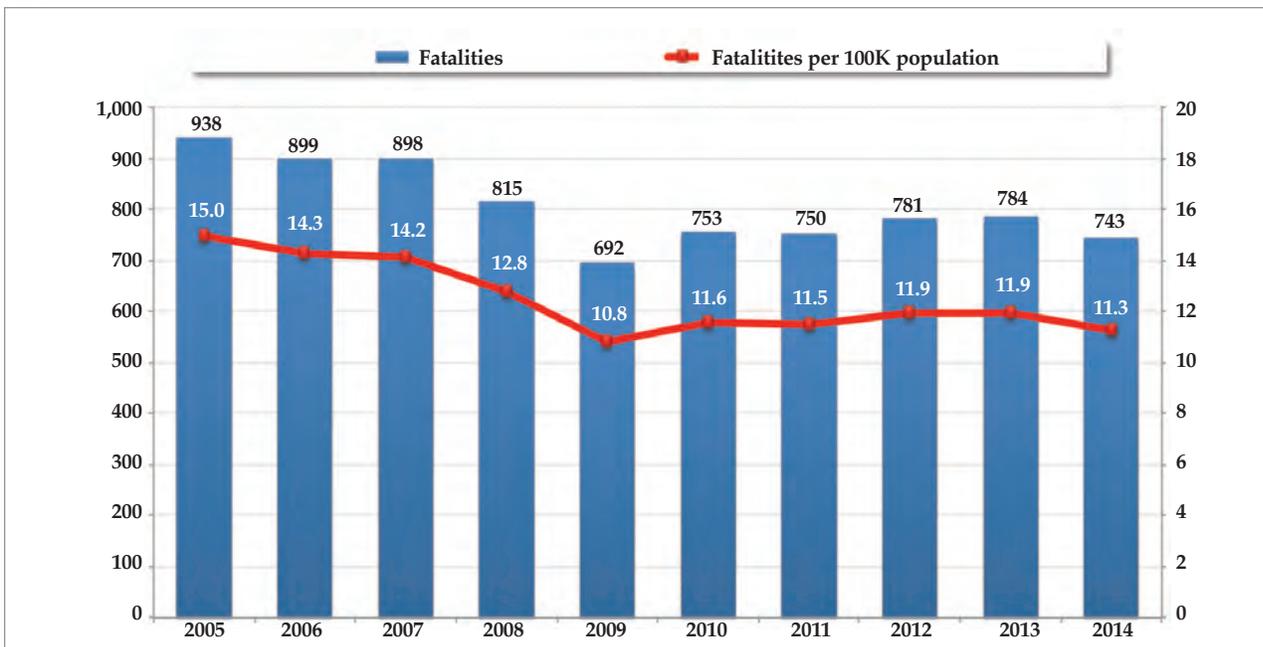


Sources: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015; U.S. Census Bureau, extracted from STATS Indiana, Indiana Business Research Center

**Figure 1.2. Individuals suffering incapacitating injuries in Indiana collisions, 2005-2014**
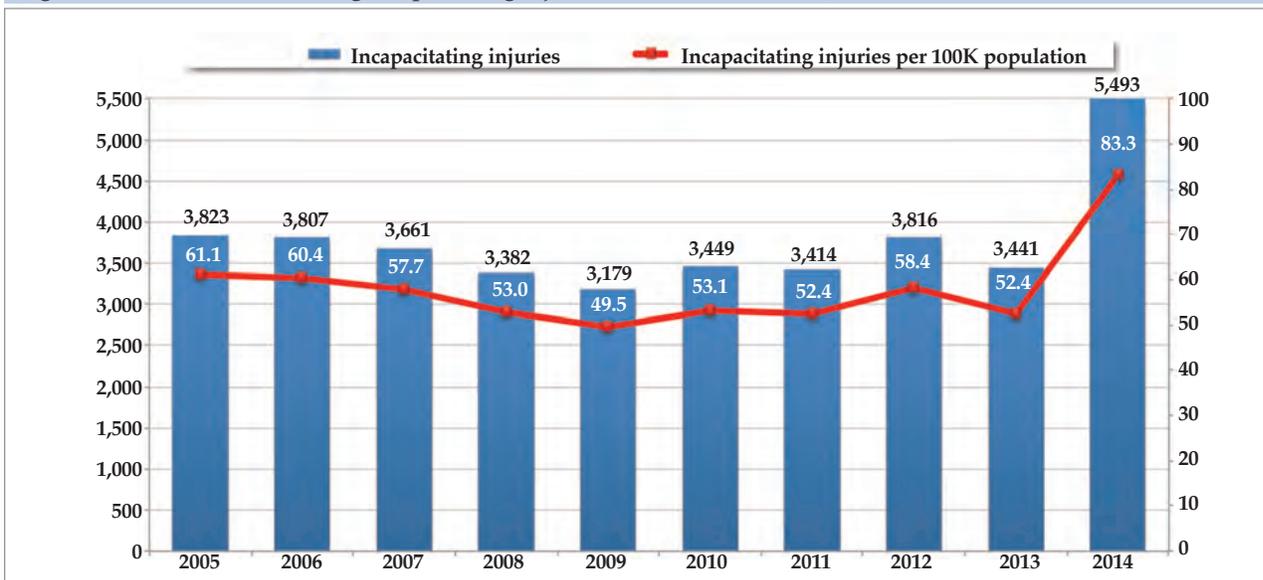


Sources: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015; U.S. Census Bureau, extracted from STATS Indiana, Indiana Business Research Center

Note: The most recent ARIES upgrade added a clarification to reporting officers on the definition of incapacitating injuries criteria to include "transported from scene for treatment"; therefore, 2014 increases in incapacitating injuries should be interpreted with caution.

after a slight increase in 2010 (Figure 1.1). The number of traffic fatalities dropped from 784 in 2013 to 743 in 2014, a 5 percent decrease. The Indiana fatality rate per 100k dropped from 11.9 to 11.3 during this same time period.

In terms of incapacitating injuries, the change in ARIES discussed previously related to criteria used by reporting officers in identifying an injury as incapacitating, makes comparisons to previous years difficult. The result of this change can be seen in Figure 1.2. The number of incapacitating injuries occurring in

Indiana traffic collisions remained fairly steady between 2005 and 2013 with the lowest rate of incapacitating injuries per 100,000 population (49.5) occurring in 2009.

Fatalities are more likely to occur in non-urban areas. In 2014, about 17 percent of all traffic fatalities occurred in rural areas, compared to 8 percent of non-fatal injuries (Figure 1.3). The *rural* rate of fatalities per 1,000 involved in collisions was 6.1 in 2014, compared to 1.3 per 1,000 in *urban* areas.

**Figure 1.3. Fatality rates and geographic distribution of fatalities and non-fatal injuries in Indiana collisions, by Census locale, 2014**
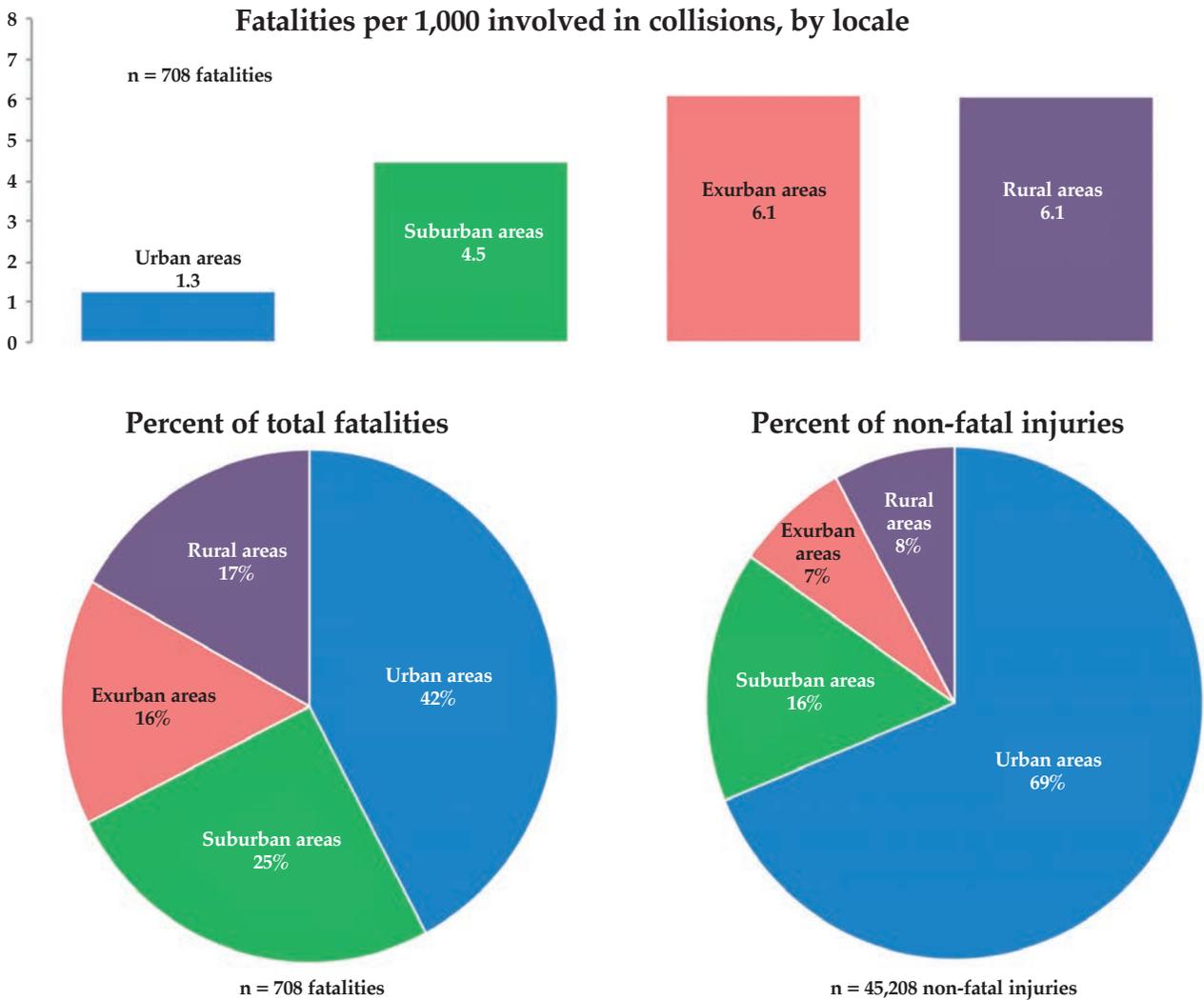


Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015
Notes:
1) *Non-fatal* injuries include *incapacitating, non-incapacitating,* and *possible* injuries.
2) Excludes cases where locale could not be determined.
3) See glossary for Census locale definitions.

## GOAL: Reducing impaired driving

Since 2012, Indiana traffic fatalities that involved an impaired driver have been on the decline. As of March 23, 2015, both the number (101) and percent (14 percent) of 2014 Indiana traffic fatalities that involved an impaired driver (blood alcohol content [BAC] = .08 grams per deciliter or higher) were at a five-year low (Figure 1.4). These 2014 numbers are likely to increase, however, once BAC results reported after the March 23, 2015, extract are analyzed. According to the most recent data available from the NHTSA's Fatality Analysis Reporting System (FARS), 25 percent of all 2013 Indiana traffic fatalities occurred in crashes involving an alcohol-impaired driver, compared to 17 percent in 2013 as reported in ARIES. NHTSA imputations for alcohol-

**Figure 1.4. Indiana alcohol-impaired traffic fatalities as a percent of total traffic fatalities, 2010-2014**
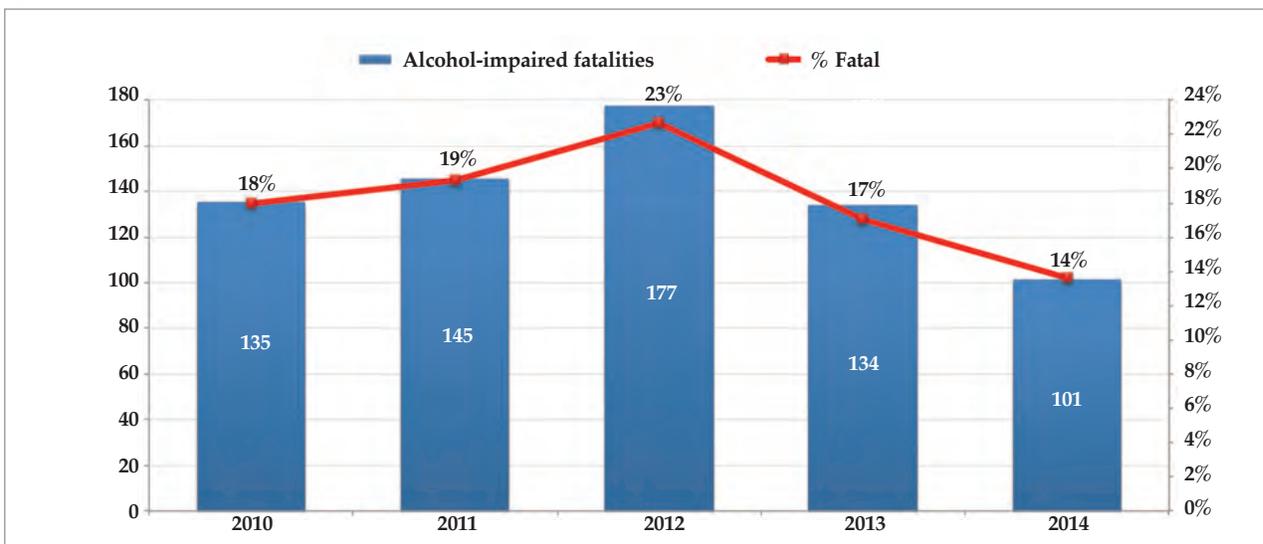


Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015
Note: When considering the reported decreases in 2014 alcohol-impaired crashes and fatalities, it is important to note that these numbers are likely to increase once BAC results reported after the March 23, 2015, extract are analyzed.

**Figure 1.5. Indiana alcohol-impaired traffic fatalities as a percent of total Indiana traffic fatalities, comparison of FARS imputed data to Indiana ARIES data as reported, 2005-2014**
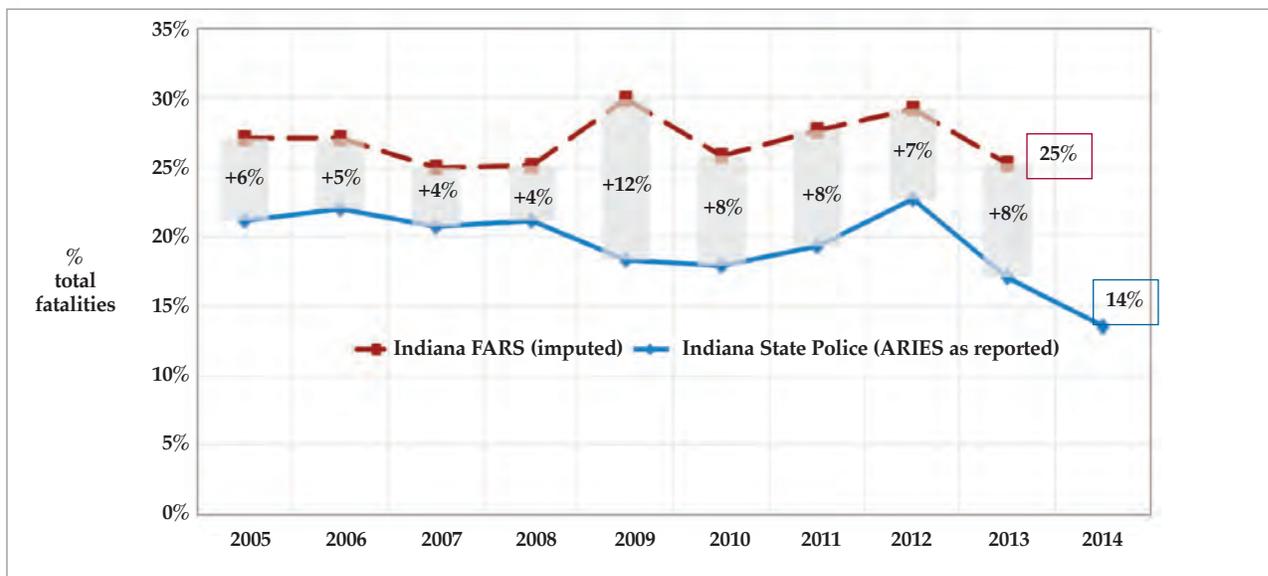


Sources: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015; Fatality Analysis Reporting System (FARS)
Notes:
1) FARS data are imputed by NHTSA from ARIES data. NHTSA imputations for alcohol-impaired crashes consistently vary from data on alcohol-impaired driving as reported by the Indiana State Police.
2) FARS data for 2014 not yet available.
3) See glossary for *alcohol-impaired* definition.
4) When considering the reported decreases in 2014 alcohol-impaired crashes and fatalities, it is important to note that these numbers are likely to increase once BAC results reported after the March 23, 2015, extract are analyzed.

impaired crashes consistently vary from data on alcohol-impaired driving as reported by Indiana law enforcement officers to the Indiana State Police (See Figure 1.5 for comparison).

Rates of driver alcohol impairment vary by vehicle type. Figure 1.6 shows that, in 2014, sport utility vehicle (SUV) drivers had

the highest rate of impaired driving (21 percent) in fatal crashes across all vehicle types. Seventeen percent of pickup truck drivers and 15 percent of moped operators in fatal collisions were driving impaired. In 2014, 4 percent of large truck drivers in fatal collisions were legally impaired.

**Figure 1.6. Percent of drivers involved in fatal collisions who were legally impaired, by vehicle type, 2014**
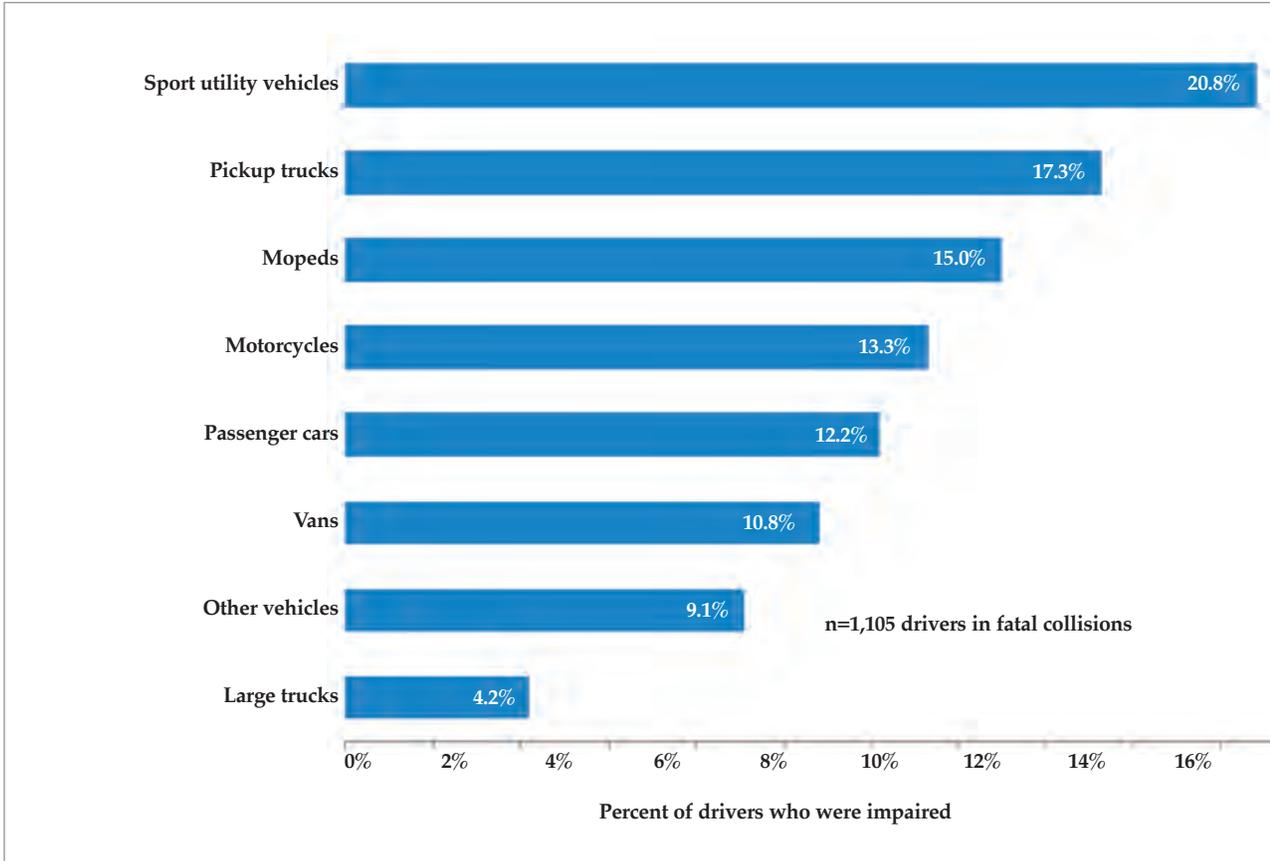
| Vehicle type | Percent |
|---|---|
| Sport utility vehicles | 20.8% |
| Pickup trucks | 17.3% |
| Mopeds | 15.0% |
| Motorcycles | 13.3% |
| Passenger cars | 12.2% |
| Vans | 10.8% |
| Other vehicles | 9.1% |
| Large trucks | 4.2% |

n=1,105 drivers in fatal collisions

Percent of drivers who were impaired

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015
Notes:
1) *Other* vehicles includes *commercial buses, school buses, farm vehicles,* and *recreational vehicles.*
2) *Non-motorists* are excluded.
3) See glossary for *alcohol-impaired* definition.
4) When considering the reported decreases in 2014 alcohol-impaired crashes and fatalities, it is important to note that these numbers are likely to increase once BAC results reported after the March 23, 2015 extract are analyzed.

## GOAL: Increasing safety equipment usage

Indiana's observational rate of restraint use among passenger vehicle occupants has increased from 81 percent in 2005 to 92 percent in 2015, 5 percentage points higher than the most recently reported national rate. Observed helmet use among motorcyclists in Indiana, which is not legally mandated by the state, consistently lagged far behind the national rate between 2005 and 2015. In 2015, 37 percent of motorcyclists in Indiana were wearing helmets, compared to 64 percent nationally in 2014 (most recent data available) (Figure 1.7). According to observational surveys conducted in Indiana, pickup truck restraint use rates, while continually lagging behind rates for passenger cars, have increased dramatically over the past decade, from a rate of 56 percent in 2005 to 83 percent in 2015 (Figure 1.8).

**Figure 1.7. Comparison of observed safety equipment usage rates by vehicle type, 2005-2015**
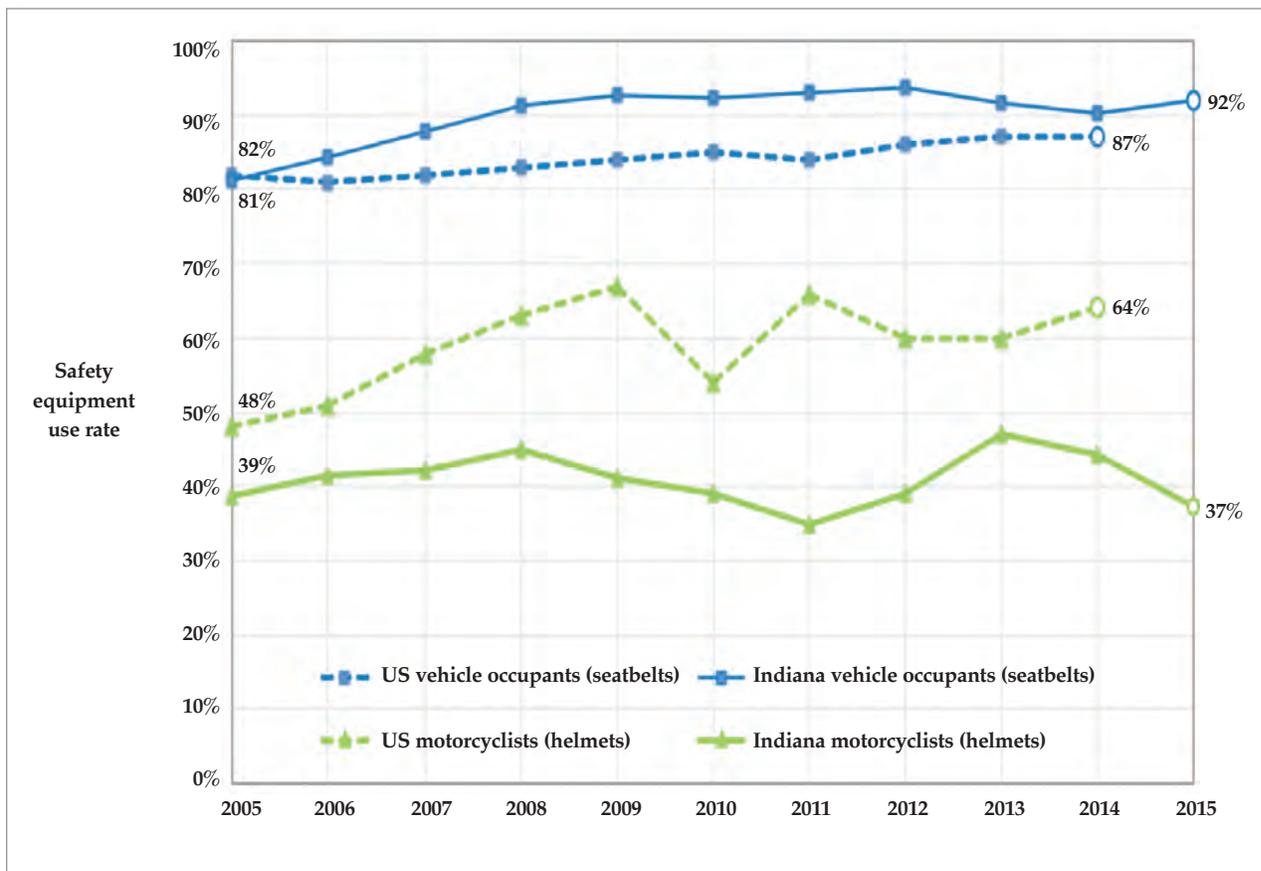


Sources:
*Seat Belt Use in 2014 - Use Rates in the States and Territories*. National Highway Traffic Safety Administration: DOT HS 812 113
*Motorcycle Helmet Use in 2014—Overall Results*. National Highway Traffic Safety Administration: DOT HS 812 110
*Indiana Safety Belt Observational Survey, June 2015, Survey Results*. Center for Road Safety, Purdue University

Notes:
1) Helmet use data for Indiana are not available prior to 2005.
2) In 2013, the Center for Road Safety adopted a new survey methodology approved by NHTSA. This new approach incorporates changes in the weighting of samples that may contribute to the observed decrease in Indiana seatbelt usage in 2013.
3) U.S. seatbelt and helmet usage rates for 2015 not yet available.

**Figure 1.8.  Observed seatbelt usage rates on Indiana roads by vehicle type, 2005-2015**
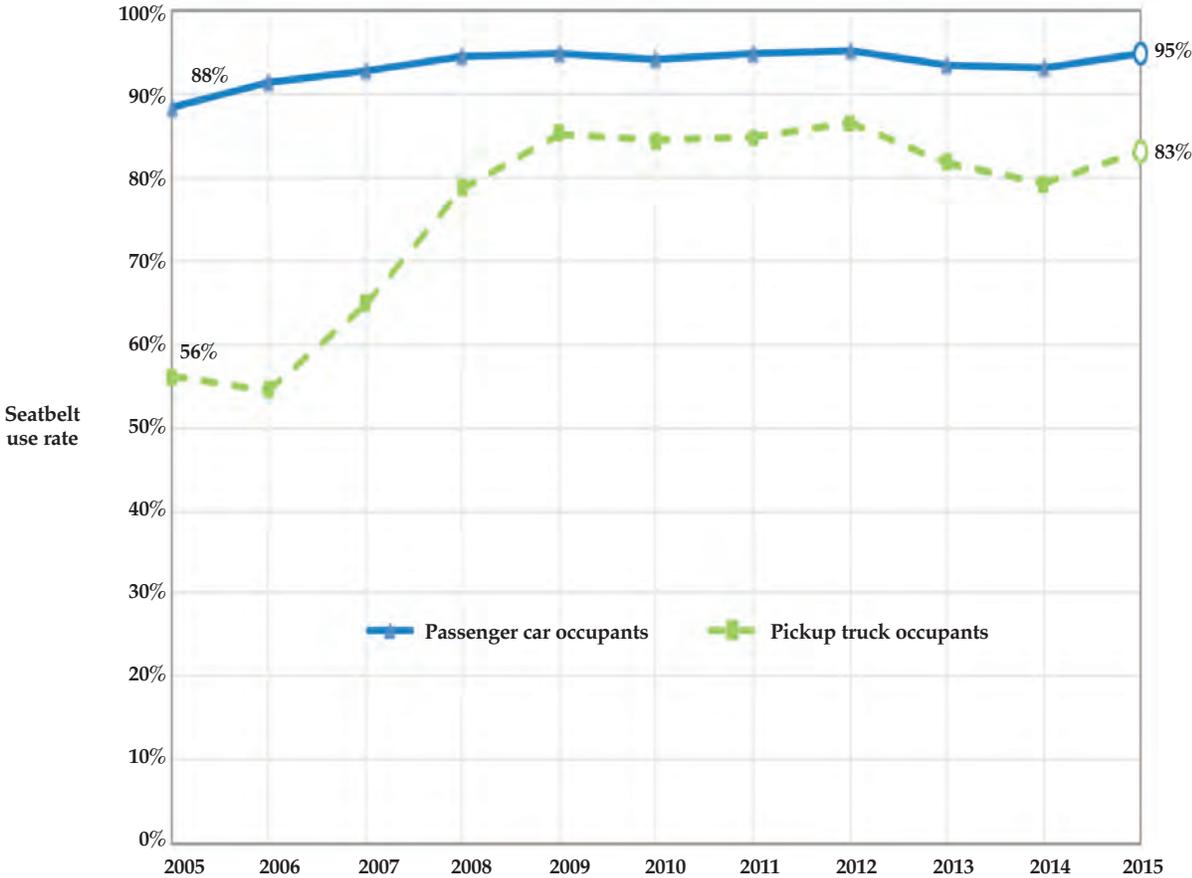


Source: *Indiana Safety Belt Observational Survey, June, 2015, Survey Results.* **Center for Road Safety, Purdue University**

Note: **In 2013, the Center for Road Safety adopted a new survey methodology approved by NHTSA. This new approach incorporates changes in the weighting of samples that may contribute to the observed decreases in Indiana seatbelt usage in 2013.**

Restraint use and helmet use among people involved in collisions varies by Census locale. In 2014 collisions, restraint use among passenger vehicle occupants in more densely populated *urban* areas was 92 percent, compared to 83 percent in *suburban* areas and 87 percent in *rural* areas (Figure 1.9). While helmet usage is far lower than seatbelt usage across all locales,

the reverse is true for motorcyclists. Helmet usage among motorcyclists involved in collisions is greater outside *urban* areas in Indiana. Among motorcyclists in collisions, 23 percent of motorcyclists in *urban* areas were helmeted, compared to 32 percent in *rural* and *suburban* areas and 34 percent in exurban areas.

**Figure 1.9. Safety equipment usage among vehicle occupants and motorcyclists in collisions, by Census locale, 2014**



Passenger vehicle occupants

n = 287,693

Motorcyclists

n = 3,570
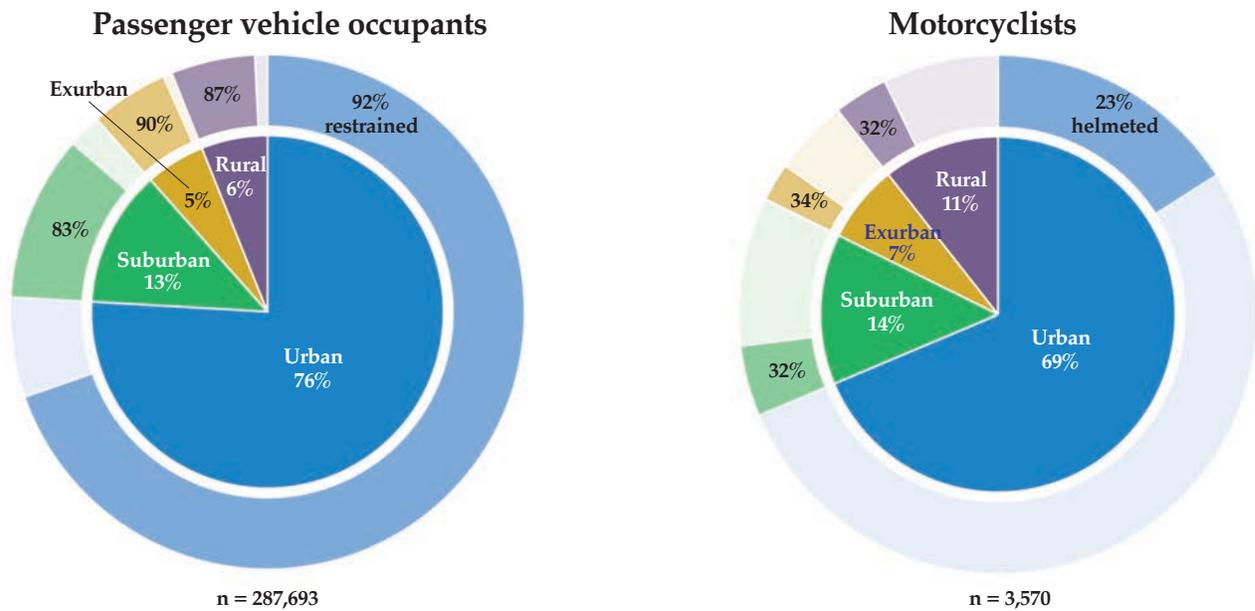
Inner pie: Geographic distribution of occupants involved
Outer ring: Safety equipment use rates, by locality

**Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015**
**Notes:**
**1) Passenger vehicles include vehicles reported as a *passenger car, pickup truck, van,* or *sport utility vehicle*.**
**2) Motorcycles includes *motorcycles* and *mopeds*.**

## GOAL: Reducing young driver involvement in fatal crashes

In 2014, collision involvement rates were higher among young drivers than any other age group (Figure 1.10). Crash rates are lowest among drivers 75 years and older (394 per 10,000 licensed). Drivers, ages 15 to 20 years old, had the highest rate of crash involvement (1,178 per 10,000 licensed). Young drivers are more likely than older drivers to be involved in collisions due to aggressive driving behavior and a lack of experience.

**Figure 1.10. Drivers in Indiana crashes per 10,000 licensed, by age group, 2014**



**Drivers involved per 10,000 licensed**

| Age group | Drivers involved per 10,000 licensed |
|---|---|
| 15 to 20 years | 1,178.4 |
| 21 to 24 years | 1,076.2 |
| 25 to 34 years | 830.8 |
| 35 to 44 years | 709.0 |
| 45 to 54 years | 606.0 |
| 55 to 64 years | 502.5 |
| 65 to 74 years | 415.2 |
| 75 years and older | 393.7 |

**Sources: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015; Indiana Bureau of Motor Vehicles**
**Notes:**
**1) Vehicle types reported as** *animal-drawn vehicle, pedestrian,* **and** *pedalcyclist* **are excluded. Unknown vehicle types are also excluded.**
**2) Drivers with unknown or invalid age are excluded.**

The overall number of young drivers involved in collisions has decreased since the July 2009 implementation of the Indiana Graduated Driver Licensing (GDL) system. The number of young drivers involved in Indiana crashes dropped from 45,441 in 2010 to 40,400 in 2014 (not shown). The number of young drivers killed in collisions also reached a five-year low (34) in 2014 (Figure 1.11).

**Figure 1.11. Young drivers killed in Indiana collisions, 2010-2014**



Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) *Young drivers* include drivers ages 15 to 20 years old.
2) *Non-motorists* are excluded.

## GOAL: Reducing motorcyclist fatalities

While 2012 marked a five-year high (151) in the number of Indiana motorcyclist fatalities, this number decreased in both 2013 (119) and 2014 (125) (Figure 1.12). The rate per 1,000 motorcyclists involved in crashes increased from 31 per 1,000 in 2013 to 34 per 1,000 in 2014. Earlier exhibits demonstrate two major contributing factors to Indiana's motorcycle fatality rate: the high rate of impaired motorcycle operators illustrated in Figure 1.6, and the low rate of helmet usage illustrated in Figure 1.7.

**Figure 1.12. Motorcyclists killed in Indiana collisions, 2010-2014**



Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Note: *Motorcyclists* include motorcycle and moped operators and passengers.

## GOAL: Reducing dangerous driving

The number of Indiana collisions that involved a speeding driver reached a five-year high in 2014, from 18,594 in 2013 to 24,810 (12 percent of all crashes) in 2014 (Figure 1.13). The number of speed-related traffic fatalities dropped from 216 in 2013 to 201 in 2014.

Disregarding traffic signals is also a form of dangerous driving. Both the number and percent of Indiana collisions that involved a driver who disregarded a signal has remained steady since 2010 (Figure 1.14).

**Figure 1.13. Indiana collisions that involved a speeding driver, 2010-2014**
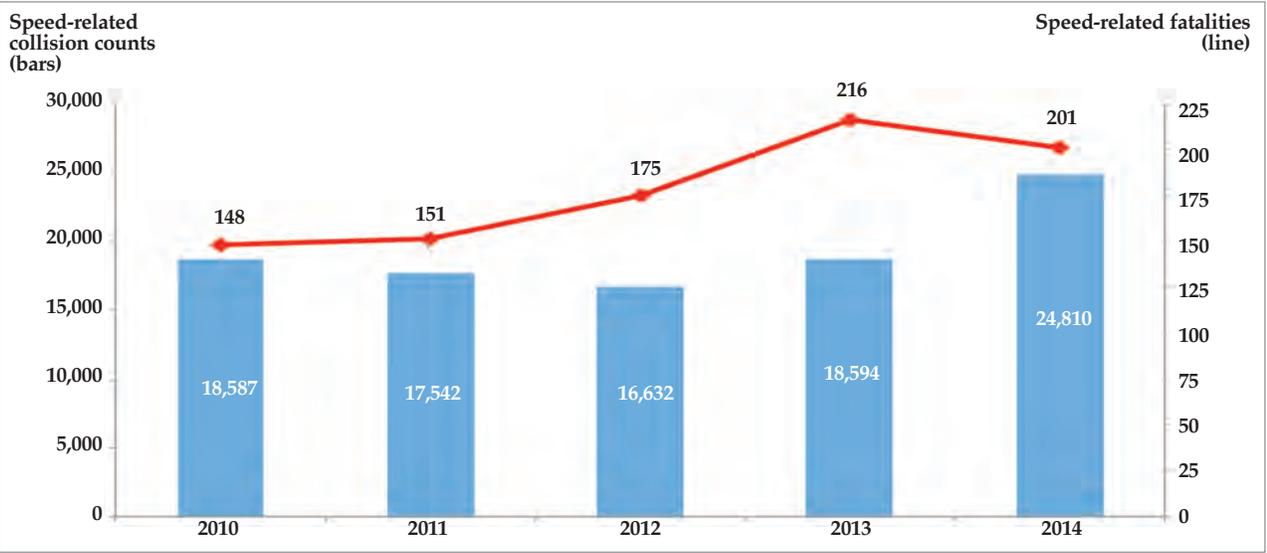


Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

**Figure 1.14. Indiana collisions that involved a driver that disregarded a signal, 2010-2014**
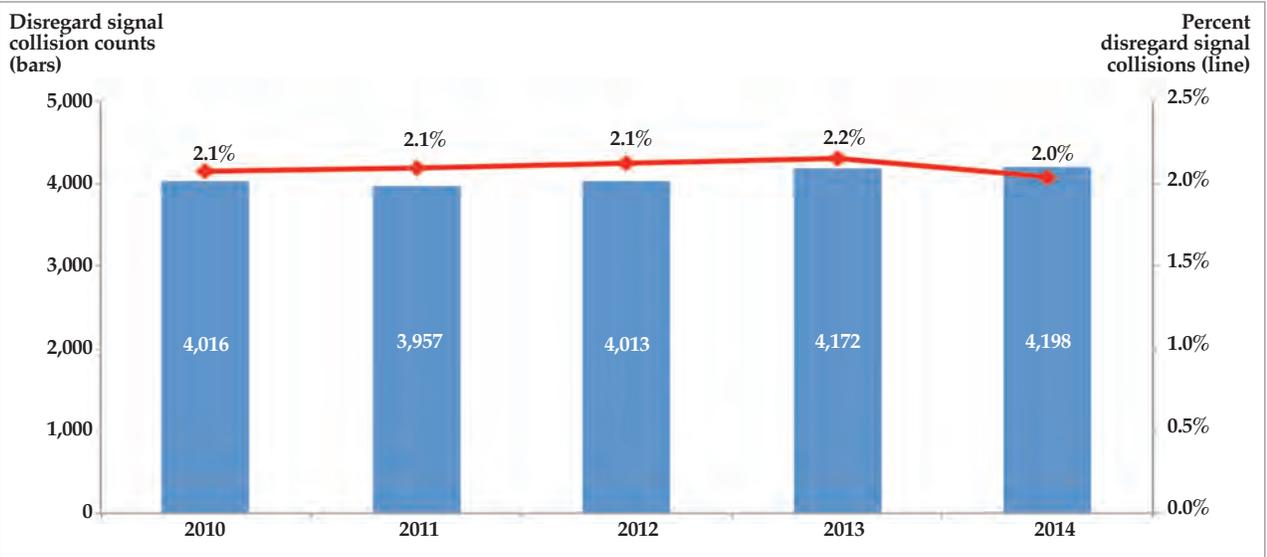


Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

## GOAL: Reducing fatalities and serious injuries among children

From 2013 to 2014, the number of children killed in Indiana traffic collisions decreased from 35 to 20. The rate per 100,000 population of children (ages 0 to 14) killed in traffic collisions in Indiana also decreased from 2.7 to 1.5 during this same time period.

**Figure 1.15. Children ages 14 and under killed in Indiana collisions, 2010-2014**
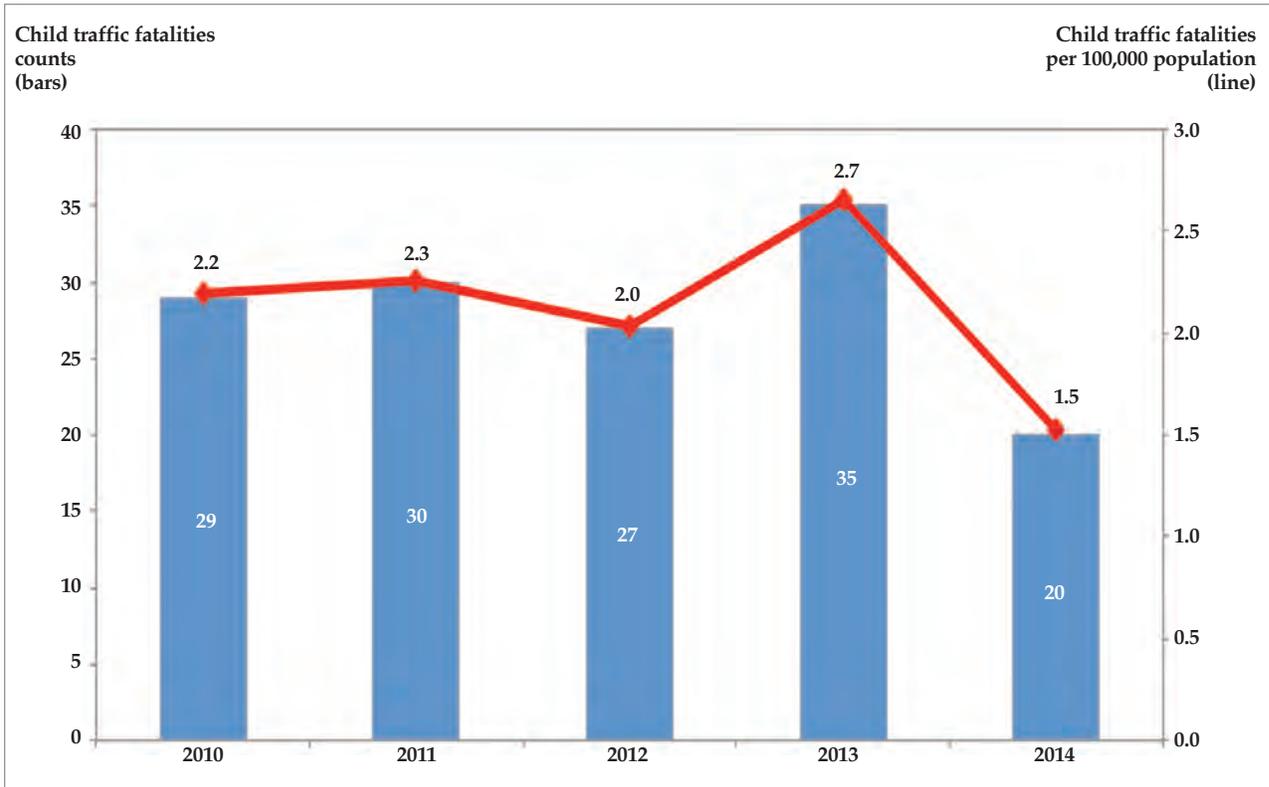


Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015
Note: *Children* include individuals ages 14 and under.

## GOAL: Reducing fatalities and incapacitating injuries among non-motorists

In 2014, non-motorists (pedestrians and pedalcyclists) represented less than 1 percent of all individuals in traffic collisions, but 11 percent of total Indiana traffic fatalities (not shown). The percent of all pedestrians in Indiana crashes that were killed increased from 3.3 percent in 2010 to 4.3 percent in 2014 (Figure 1.16). The percent of both pedalcyclists and vehicle occupants killed in collisions remained steady during this same time period.

**Figure 1.16. Fatal and incapacitating injuries in Indiana collisions as a percent of all involved, by person type, 2010-2014**
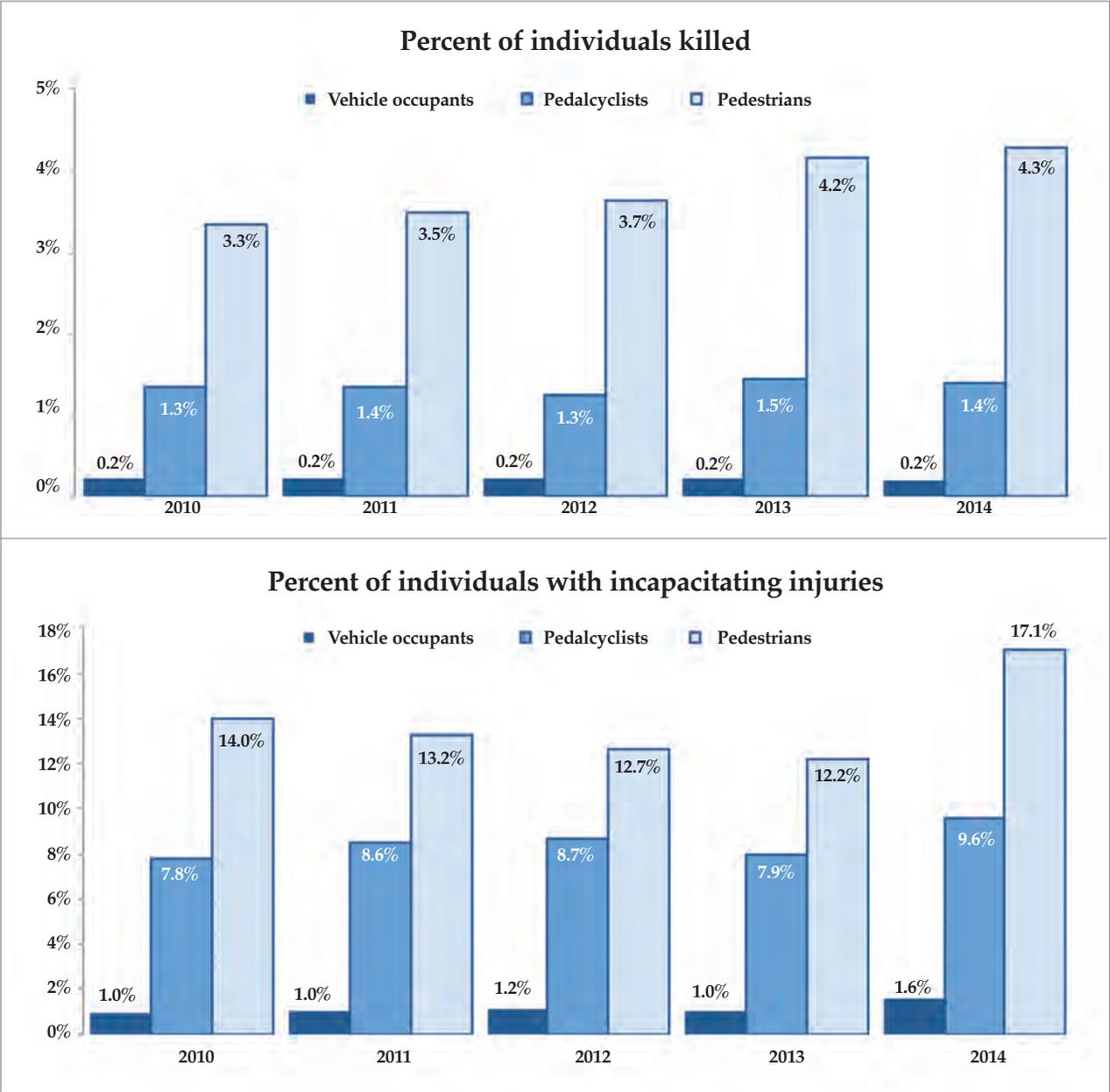
**Percent of individuals killed**

Legend: Vehicle occupants, Pedalcyclists, Pedestrians

| Year | Vehicle occupants | Pedalcyclists | Pedestrians |
|------|-------------------|---------------|-------------|
| 2010 | 0.2% | 1.3% | 3.3% |
| 2011 | 0.2% | 1.4% | 3.5% |
| 2012 | 0.2% | 1.3% | 3.7% |
| 2013 | 0.2% | 1.5% | 4.2% |
| 2014 | 0.2% | 1.4% | 4.3% |

**Percent of individuals with incapacitating injuries**

Legend: Vehicle occupants, Pedalcyclists, Pedestrians

| Year | Vehicle occupants | Pedalcyclists | Pedestrians |
|------|-------------------|---------------|-------------|
| 2010 | 1.0% | 7.8% | 14.0% |
| 2011 | 1.0% | 8.6% | 13.2% |
| 2012 | 1.2% | 8.7% | 12.7% |
| 2013 | 1.0% | 7.9% | 12.2% |
| 2014 | 1.6% | 9.6% | 17.1% |

**Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015**

Notes:
1) *Animal-drawn vehicle occupants* are excluded.
2) The most recent ARIES upgrade added a clarification to reporting officers on the definition of incapacitating injuries criteria to include "transported from scene for treatment"; therefore, 2014 increases in incapacitating injuries should be interpreted with caution.

# CHAPTER 2
# GENERAL TRENDS

# GENERAL TRENDS, 2014

The rate of traffic fatalities per 100 million vehicle miles traveled (VMT) in Indiana dropped from 0.99 to 0.94 between 2013 and 2014 (Figure 2.1). The Indiana traffic fatality rate per 100 million VMT between 2003 and 2013 was consistently below the national rate.

### Month and Day of Week

Between 2010 and 2014, the winter months of December and January had the highest incidence of total collisions, while warm weather months (June through September) had the highest incidence of fatal collisions (Table 2.1). During this five-year period, the lowest annual incidence of total collisions occurred during the months of March and April, while the lowest annual incidence of fatal collisions occurred during the months of January, February, and March.

When looking at all collisions by day of the week between 2010 and 2014, the highest count of collisions occurred consistently on Fridays, and Sunday had the lowest (Table 2.2). In three of the last five years, the highest counts of fatal collisions occurred on Saturdays (including 2013 and 2014).

### Overview — Types of Collisions

The total number of fatal collisions decreased 1.1 percent from 2013 to 2014. *Aggressive driving* (6,209) increased 23.1 percent and *speeding* collisions (24,810) increased 33.4 percent from 2013 to 2014. Crashes that involved an *alcohol-impaired* driver decreased 4.6 percent (Figure 2.2).

Drivers killed in Indiana traffic collisions have generally made up about 70 percent of all fatalities since 2010 (calculated from Table 2.3). The total number of vehicle occupants (drivers and passengers) and non-motorists killed or injured in Indiana traffic collisions in 2014 (47,100) increased 2.1 percent from 2013 (Table 2.3).

### Alcohol-impaired Collisions

Driver traffic fatalities in Indiana collisions that involved an *alcohol-impaired* driver decreased 29 percent from 107 in 2013 to 76 in 2014 (Table 2.4). About 75 percent of *alcohol-impaired*

traffic fatalities (76 of 101) were drivers, 22 percent were occupants, and 3 percent were non-motorists (calculated from Table 2.4).

### Aggressive Driving and Speeding Collisions

The total number of individuals killed in *aggressive driving* crashes decreased from 64 in 2013 to 53 in 2014, representing a 17 percent decrease (Table 2.5). The number of traffic fatalities that occurred in *speeding collisions* (201) decreased 7 percent in 2014 (Table 2.6). Eight non-motorists were killed in 2014 crashes that involved a speeding driver.

### Disregarding-a-signal Collisions

The number of individuals killed in Indiana traffic collisions that involved a driver who *disregarded a signal* decreased 10 percent (from 20 fatalities in 2013 to 18 fatalities in 2014). Total *disregarding-a-signal* collisions (4,198) increased less than one percent in 2014, and increased at an annualized rate of 1.1 percent since 2010 (Table 2.7).

### Hit-and-run Collisions

Collisions that involved a *hit-and-run* driver increased from 23,351 in 2013 to 24,585 in 2014 (Table 2.8). Fatal *hit-and-run* collisions increased 40.7 percent from 27 in 2013 to 38 in 2014. In 2014, 1,071 Indiana collisions involved a driver that was *distracted by a cell phone*, six of which were fatal collisions (Table 2.9).

### Summary of Collisions and Census Locale

*Alcohol-impaired* collisions represented 2.2 percent of all Indiana collisions in 2014, while 13.4 percent of fatal crashes involved an impaired driver (Table 2.10). In 2014, approximately 12 percent of total crashes and 26 percent of fatal crashes involved a driver who was speeding. When considering the geography of Indiana collisions, all locales (*urban, suburban, exurban,* and *rural*) saw an increase in 2014 collisions (Figure 2.3). Fatal collisions in rural areas decreased 9.5 percent, from 127 in 2013 to 115 in 2014.

**Figure 2.1. Traffic fatalities per 100M vehicle miles traveled (VMT), 2003-2014**
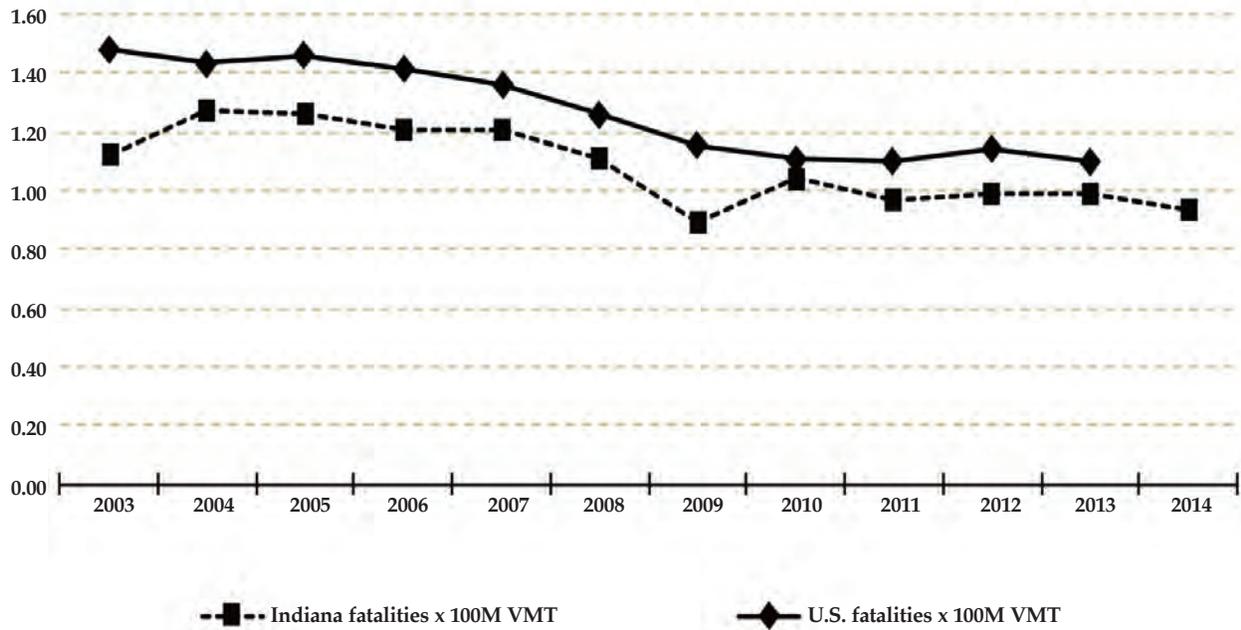


Sources:
National Highway Traffic Safety Administration, National Center for Statistics and Analysis, available at *http://www-fars.nhtsa.dot.gov/Main/index.aspx*
Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015
Indiana Department of Transportation

Notes:
1) Indiana VMT for 2014 not yet available; 2013 VMT is used for 2014.
2) U.S. fatality numbers for 2014 not yet available.

## Table 2.1. Total and fatal traffic collisions in Indiana, by month, 2010-2014

| Month | Total collisions | | | | | Fatal collisions | | | | |
|-------|------|------|------|------|------|------|------|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2010 | 2011 | 2012 | 2013 | 2014 |
| Jan | 17,072 | 18,848 | 17,446 | 15,487 | 23,532 | 45 | 55 | 45 | 46 | 37 |
| Feb | 17,413 | 16,257 | 14,177 | 14,258 | 19,371 | 42 | 42 | 43 | 43 | 35 |
| Mar | 13,397 | 12,755 | 14,598 | 15,949 | 15,514 | 50 | 34 | 58 | 54 | 46 |
| Apr | 14,183 | 13,716 | 13,891 | 14,038 | 14,192 | 61 | 43 | 49 | 65 | 46 |
| May | 15,422 | 15,149 | 15,985 | 16,325 | 15,904 | 58 | 59 | 64 | 51 | 66 |
| Jun | 15,475 | 14,846 | 15,142 | 15,267 | 15,364 | 64 | 58 | 84 | 51 | 63 |
| Jul | 15,068 | 14,232 | 14,457 | 15,017 | 14,912 | 71 | 76 | 80 | 57 | 74 |
| Aug | 14,954 | 15,010 | 15,511 | 15,502 | 15,636 | 70 | 71 | 70 | 76 | 83 |
| Sep | 14,954 | 15,165 | 14,889 | 15,765 | 15,716 | 56 | 65 | 62 | 78 | 65 |
| Oct | 17,048 | 17,312 | 17,656 | 17,640 | 18,805 | 71 | 65 | 54 | 71 | 69 |
| Nov | 17,292 | 18,452 | 16,615 | 18,449 | 19,336 | 57 | 49 | 50 | 62 | 55 |
| Dec | 21,101 | 16,711 | 18,793 | 19,508 | 17,250 | 55 | 58 | 61 | 56 | 63 |
| Total | 193,379 | 188,453 | 189,160 | 193,205 | 205,532 | 700 | 675 | 720 | 710 | 702 |
| High | Dec | Jan | Dec | Dec | Jan | Jul | Jul | Jun | Sep | Aug |
| Low | Mar | Mar | Apr | Apr | Apr | Feb | Mar | Feb | Feb | Feb |
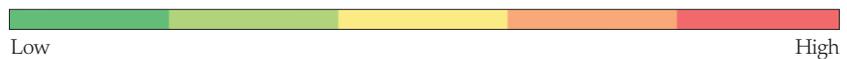
Low      High

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015
Note: Conditional formatting color-scales are illustrated to show months from low to high for the entire 5-year period.

## Table 2.2. Total and fatal traffic collisions in Indiana, by day of week, 2010-2014

| Month | Total collisions | | | | | Fatal collisions | | | | |
|-------|------|------|------|------|------|------|------|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2010 | 2011 | 2012 | 2013 | 2014 |
| Sun | 20,020 | 18,953 | 19,218 | 19,820 | 20,737 | 96 | 96 | 103 | 109 | 103 |
| Mon | 27,510 | 27,122 | 27,053 | 27,200 | 28,339 | 79 | 92 | 88 | 103 | 84 |
| Tue | 28,551 | 28,508 | 26,995 | 28,406 | 30,913 | 96 | 106 | 93 | 105 | 96 |
| Wed | 28,922 | 26,985 | 27,584 | 28,387 | 30,264 | 74 | 87 | 103 | 81 | 93 |
| Thur | 29,226 | 29,257 | 28,754 | 29,355 | 31,601 | 94 | 93 | 106 | 91 | 94 |
| Fri | 33,551 | 32,263 | 33,995 | 34,018 | 35,960 | 129 | 102 | 114 | 93 | 114 |
| Sat | 25,599 | 25,365 | 25,561 | 26,019 | 27,718 | 132 | 99 | 113 | 128 | 118 |
| Total | 193,379 | 188,453 | 189,160 | 193,205 | 205,532 | 700 | 675 | 720 | 710 | 702 |
| High | Fri | Fri | Fri | Fri | Fri | Sat | Tue | Fri | Sat | Sat |
| Low | Sun | Sun | Sun | Sun | Sun | Wed | Wed | Mon | Wed | Mon |

Low      High

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015
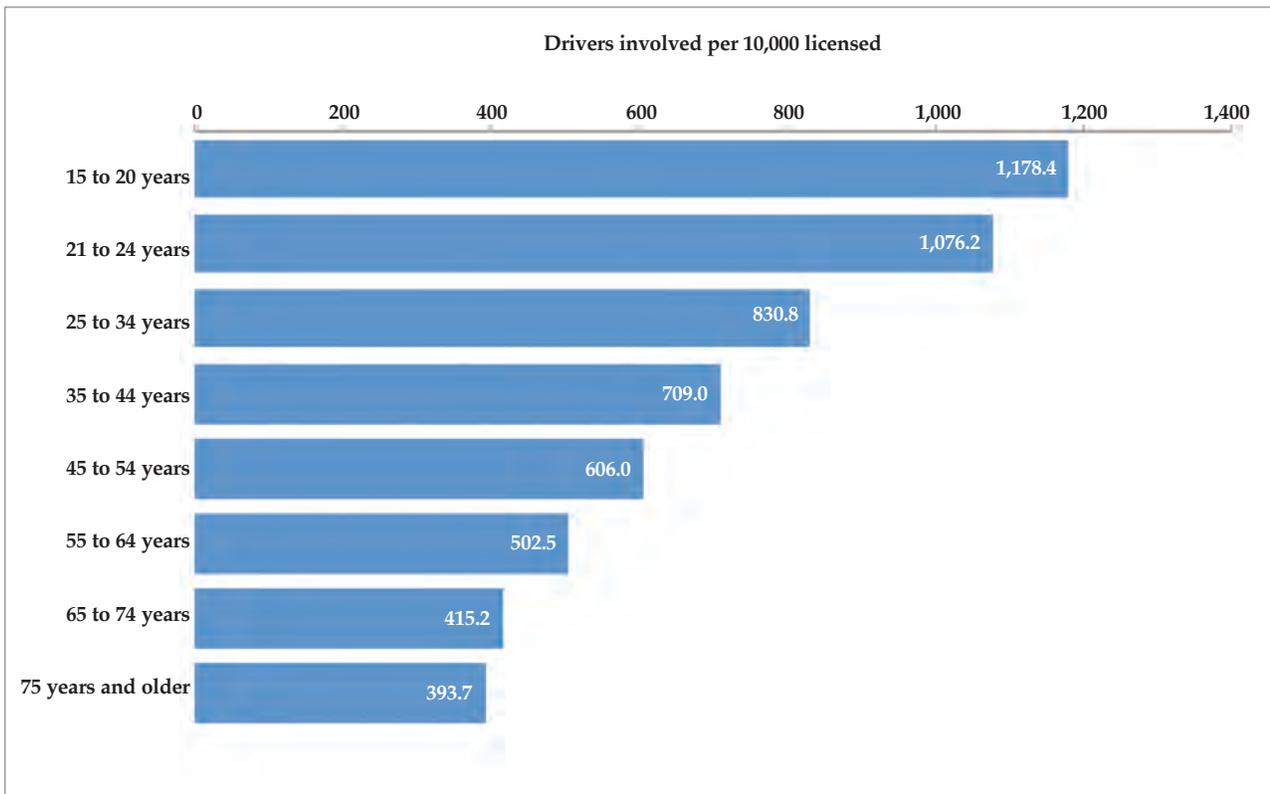Note: Conditional formatting color-scales are illustrated to show months from low to high for the entire 5-year period.

**Figure 2.2. Indiana collisions, by collision type, 2010-2014**

### Total collisions

| 2010 | 2011 | 2012 | 2013 | 2014 |
|------|------|------|------|------|
| 193,379 | 188,453 | 189,160 | 193,205 | 205,532 |

### Fatal collisions

| 2010 | 2011 | 2012 | 2013 | 2014 |
|------|------|------|------|------|
| 700 | 675 | 720 | 710 | 702 |

### Alcohol-impaired collisions

| 2010 | 2011 | 2012 | 2013 | 2014 |
|------|------|------|------|------|
| 5,005 | 4,961 | 5,198 | 4,794 | 4,574 |

### Aggressive driving collisions

| 2010 | 2011 | 2012 | 2013 | 2014 |
|------|------|------|------|------|
| 4,143 | 4,322 | 4,500 | 5,043 | 6,209 |

### Speeding collisions

| 2010 | 2011 | 2012 | 2013 | 2014 |
|------|------|------|------|------|
| 18,587 | 17,542 | 16,632 | 18,594 | 24,810 |

### Disregarding a signal collisions

| 2010 | 2011 | 2012 | 2013 | 2014 |
|------|------|------|------|------|
| 4,016 | 3,957 | 4,013 | 4,172 | 4,198 |

### Hit-and-run collisions

| 2010 | 2011 | 2012 | 2013 | 2014 |
|------|------|------|------|------|
| 23,225 | 22,679 | 23,079 | 23,351 | 24,585 |

### Cell phone-distracted collisions

| 2010 | 2011 | 2012 | 2013 | 2014 |
|------|------|------|------|------|
| 1,287 | 1,170 | 1,135 | 1,069 | 1,071 |

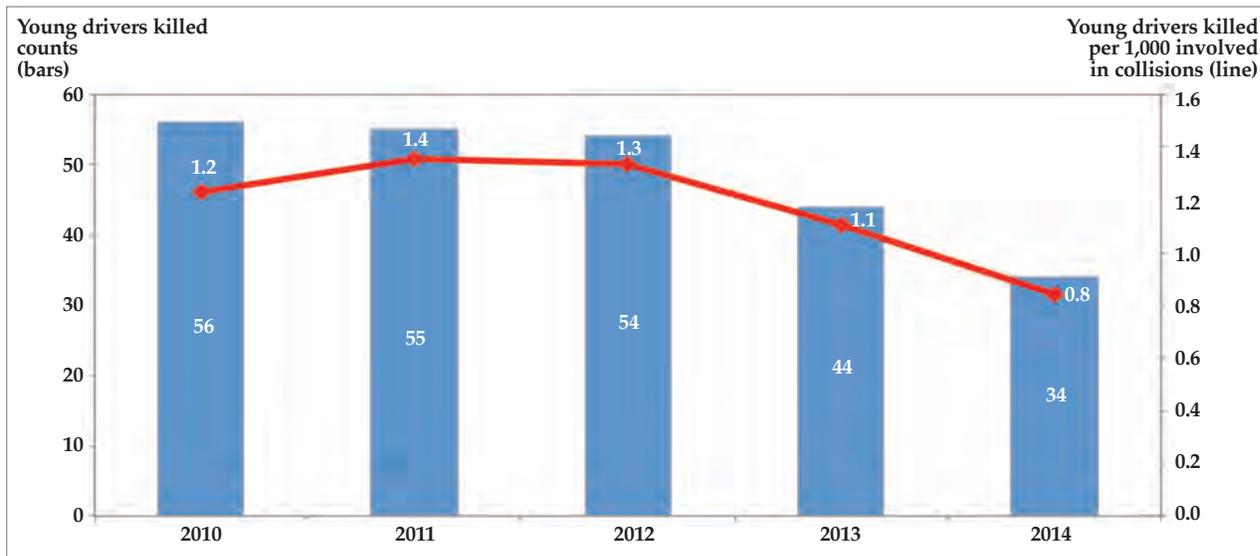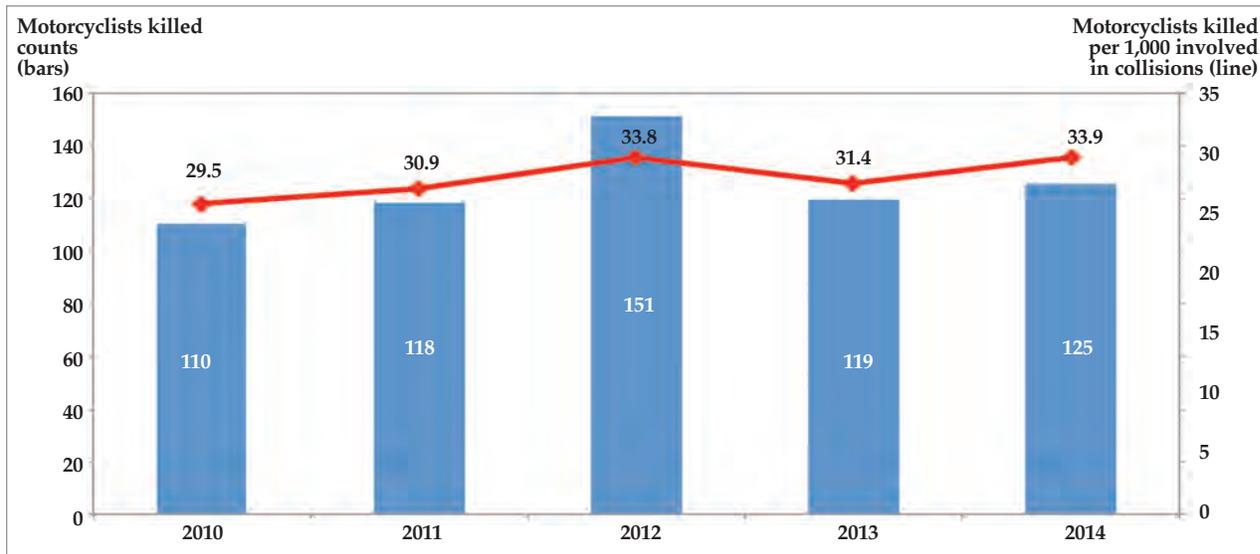Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015
Note: See glossary for definition of *alcohol-impaired, aggressive driving,* and *speeding* collisions.

**Table 2.3. Total traffic collisions and related injuries in Indiana, 2010-2014**

| | | Collisions, by severity | | | | | Annual rate of change | |
|---|---|---|---|---|---|---|---|---|
| | **Severity** | **2010** | **2011** | **2012** | **2013** | **2014** | **2013-14** | **2010-14** |
| | Fatal | 700 | 675 | 720 | 710 | 702 | -1.1% | 0.1% |
| | Non-fatal injury | 34,147 | 32,789 | 34,132 | 32,846 | 33,823 | 3.0% | -0.2% |
| | Property damage | 158,532 | 154,989 | 154,308 | 159,649 | 171,007 | 7.1% | 1.9% |
| | **Total** | **193,379** | **188,453** | **189,160** | **193,205** | **205,532** | **6.4%** | **1.5%** |
| | *Fatal, per 100m VMT* | *0.97* | *0.87* | *0.92* | *0.89* | *0.88* | *-1.1%* | *-2.2%* |
| | *Total, per 100m VMT* | *267.26* | *243.30* | *240.52* | *243.45* | *258.98* | *6.4%* | *-0.8%* |

| | | Injuries, by person type and injury status | | | | | Annual rate of change | |
|---|---|---|---|---|---|---|---|---|
| **Person type** | **Injury status** | **2010** | **2011** | **2012** | **2013** | **2014** | **2013-14** | **2010-14** |
| | Fatal | 521 | 524 | 542 | 530 | 517 | -2.5% | -0.2% |
| | Incapacitating | 2,273 | 2,364 | 2,601 | 2,389 | 3,731 | 56.2% | 13.2% |
| Driver | Non-incapacitating | 30,398 | 28,855 | 30,079 | 28,991 | 28,594 | -1.4% | -1.5% |
| | **Subtotal** | **33,192** | **31,743** | **33,222** | **31,910** | **32,842** | **2.9%** | **-0.3%** |
| | Fatal | 157 | 146 | 160 | 167 | 137 | -18.0% | -3.3% |
| | Incapacitating | 840 | 724 | 894 | 763 | 1,363 | 78.6% | 12.9% |
| Injured occupant | Non-incapacitating | 11,750 | 11,012 | 11,262 | 10,960 | 10,476 | -4.4% | -2.8% |
| | **Subtotal** | **12,747** | **11,882** | **12,316** | **11,890** | **11,976** | **0.7%** | **-1.5%** |
| | Fatal | 75 | 80 | 79 | 87 | 89 | 2.3% | 4.4% |
| | Incapacitating | 336 | 326 | 321 | 289 | 399 | 38.1% | 4.4% |
| Non-motorist | Non-incapacitating | 2,091 | 2,039 | 2,064 | 1,946 | 1,794 | -7.8% | -3.8% |
| | **Subtotal** | **2,502** | **2,445** | **2,464** | **2,322** | **2,282** | **-1.7%** | **-2.3%** |
| | Fatal | 753 | 750 | 781 | 784 | 743 | -5.2% | -0.3% |
| | Incapacitating | 3,449 | 3,414 | 3,816 | 3,441 | 5,493 | 59.6% | 12.3% |
| All | Non-incapacitating | 44,239 | 41,906 | 43,405 | 41,897 | 40,864 | -2.5% | -2.0% |
| | **Total** | **48,441** | **46,070** | **48,002** | **46,122** | **47,100** | **2.1%** | **-0.7%** |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) *Non-fatal injury* collisions are those with no fatalities and at least one injury reported as *incapacitating, non-incapacitating,* or *possible.*
2) *Non-incapacitating* includes injuries reported as *non-incapacitating* and *possible.*
3) *Non-motorist* includes *pedestrians, pedalcyclists,* and *animal-drawn vehicle occupants.*

**Table 2.4.  Alcohol-impaired collisions and related injuries in Indiana, 2010-2014**

| | Alcohol-impaired collisions, by severity | | | | | Annual rate of change | |
|---|---|---|---|---|---|---|---|
| **Severity** | **2010** | **2011** | **2012** | **2013** | **2014** | **2013-14** | **2010-14** |
| Fatal | 130 | 138 | 167 | 122 | 94 | -23.0% | -7.8% |
| Non-fatal injury | 1,527 | 1,445 | 1,528 | 1,403 | 1,290 | -8.1% | -4.1% |
| Property damage | 3,348 | 3,378 | 3,503 | 3,269 | 3,190 | -2.4% | -1.2% |
| **Total** | 5,005 | 4,961 | 5,198 | 4,794 | 4,574 | -4.6% | -2.2% |
| *Fatal, per 100m VMT* | *0.18* | *0.18* | *0.21* | *0.15* | *0.12* | *-23.0%* | *-9.9%* |
| *Total, per 100m VMT* | *6.92* | *6.40* | *6.61* | *6.04* | *5.76* | *-4.6%* | *-4.5%* |

| | Injuries in alcohol-impaired collisions, by person type and injury status | | | | | Annual rate of change | |
|---|---|---|---|---|---|---|---|
| **Person type** / **Injury status** | **2010** | **2011** | **2012** | **2013** | **2014** | **2013-14** | **2010-14** |
| **Driver** | | | | | | | |
| Fatal | 104 | 122 | 148 | 107 | 76 | -29.0% | -7.5% |
| Incapacitating | 180 | 159 | 191 | 161 | 228 | 41.6% | 6.1% |
| Non-incapacitating | 1,372 | 1,325 | 1,363 | 1,279 | 1,096 | -14.3% | -5.5% |
| **Subtotal** | **1,656** | **1,606** | **1,702** | **1,547** | **1,400** | **-9.5%** | **-4.1%** |
| **Injured occupant** | | | | | | | |
| Fatal | 23 | 21 | 23 | 25 | 22 | -12.0% | -1.1% |
| Incapacitating | 68 | 53 | 56 | 71 | 76 | 7.0% | 2.8% |
| Non-incapacitating | 450 | 438 | 440 | 427 | 364 | -14.8% | -5.2% |
| **Subtotal** | **541** | **512** | **519** | **523** | **462** | **-11.7%** | **-3.9%** |
| **Non-motorist** | | | | | | | |
| Fatal | 8 | 2 | 6 | 2 | 3 | 50.0% | -21.7% |
| Incapacitating | 17 | 15 | 6 | 15 | 11 | -26.7% | -10.3% |
| Non-incapacitating | 27 | 28 | 27 | 28 | 19 | -32.1% | -8.4% |
| **Subtotal** | **52** | **45** | **39** | **45** | **33** | **-26.7%** | **-10.7%** |
| **All** | | | | | | | |
| Fatal | 135 | 145 | 177 | 134 | 101 | -24.6% | -7.0% |
| Incapacitating | 265 | 227 | 253 | 247 | 315 | 27.5% | 4.4% |
| Non-incapacitating | 1,849 | 1,791 | 1,830 | 1,734 | 1,479 | -14.7% | -5.4% |
| **Total** | **2,249** | **2,163** | **2,260** | **2,115** | **1,895** | **-10.4%** | **-4.2%** |

**Source:  Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015**

**Notes:**
**1) See glossary for definition of** *alcohol-impaired.*
**2)** *Non-fatal injury* **collisions are those with no fatalities and at least one injury reported as** *incapacitating, non-incapacitating,* **or** *possible.*
**3)** *Non-incapacitating* **includes injuries reported as** *non-incapacitating* **and** *possible.*
**3)** *Non-motorist* **includes** *pedestrians, pedalcyclists,* **and** *animal-drawn vehicle occupants.*

**Table 2.5. Aggressive driving collisions and related injuries in Indiana, 2010-2014**

| | Aggressive driving collisions, by severity | | | | | Annual rate of change | |
|---|---|---|---|---|---|---|---|
| **Severity** | **2010** | **2011** | **2012** | **2013** | **2014** | **2013-14** | **2010-14** |
| Fatal | 22 | 30 | 33 | 55 | 46 | -16.4% | 20.2% |
| Non-fatal injury | 1,125 | 1,121 | 1,216 | 1,342 | 1,578 | 17.6% | 8.8% |
| Property damage | 2,996 | 3,171 | 3,251 | 3,646 | 4,585 | 25.8% | 11.2% |
| **Total** | 4,143 | 4,322 | 4,500 | 5,043 | 6,209 | 23.1% | 10.6% |
| *Fatal, per 100m VMT* | *0.03* | *0.04* | *0.04* | *0.07* | *0.06* | *-16.4%* | *17.5%* |
| *Total, per 100m VMT* | *5.73* | *5.58* | *5.72* | *6.35* | *7.82* | *23.1%* | *8.1%* |

| | | Injuries in aggressive driving collisions, by person type and injury status | | | | | Annual rate of change | |
|---|---|---|---|---|---|---|---|---|
| **Person type** | **Injury status** | **2010** | **2011** | **2012** | **2013** | **2014** | **2013-14** | **2010-14** |
| | Fatal | 15 | 28 | 24 | 38 | 39 | 2.6% | 27.0% |
| | Incapacitating | 96 | 108 | 144 | 109 | 216 | 98.2% | 22.5% |
| Driver | Non-incapacitating | 1,138 | 1,132 | 1,208 | 1,369 | 1,499 | 9.5% | 7.1% |
| | **Subtotal** | **1,249** | **1,268** | **1,376** | **1,516** | **1,754** | **15.7%** | **8.9%** |
| | Fatal | 6 | 11 | 9 | 25 | 11 | -56.0% | 16.4% |
| | Incapacitating | 48 | 39 | 58 | 34 | 104 | 205.9% | 21.3% |
| Injured occupant | Non-incapacitating | 540 | 449 | 481 | 587 | 594 | 1.2% | 2.4% |
| | **Subtotal** | **594** | **499** | **548** | **646** | **709** | **9.8%** | **4.5%** |
| | Fatal | 2 | 0 | 3 | 1 | 3 | 200.0% | na |
| | Incapacitating | 1 | 5 | 5 | 4 | 5 | 25.0% | 49.5% |
| Non-motorist | Non-incapacitating | 32 | 26 | 27 | 26 | 26 | 0.0% | -5.1% |
| | **Subtotal** | **35** | **31** | **35** | **31** | **34** | **9.7%** | **-0.7%** |
| | Fatal | 23 | 39 | 36 | 64 | 53 | -17.2% | 23.2% |
| | Incapacitating | 145 | 152 | 207 | 147 | 325 | 121.1% | 22.4% |
| All | Non-incapacitating | 1,710 | 1,607 | 1,716 | 1,982 | 2,119 | 6.9% | 5.5% |
| | **Total** | **1,878** | **1,798** | **1,959** | **2,193** | **2,497** | **13.9%** | **7.4%** |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) See glossary for definition of *aggressive driving.*
2) *Non-fatal injury* collisions are those with no fatalities and at least one injury reported as *incapacitating, non-incapacitating,* or *possible.*
3) *Non-incapacitating* includes injuries reported as *non-incapacitating* and *possible.*
4) *Non-motorist* includes *pedestrians, pedalcyclists,* and *animal-drawn vehicle occupants.*

Table 2.6.  Speeding collisions and related injuries in Indiana, 2010-2014

| | | Speeding collisions, by severity | | | | | Annual rate of change | |
|---|---|---|---|---|---|---|---|---|
| | **Severity** | **2010** | **2011** | **2012** | **2013** | **2014** | **2013-14** | **2010-14** |
| | Fatal | 139 | 132 | 163 | 185 | 184 | -0.5% | 7.3% |
| | Non-fatal injury | 4,154 | 4,111 | 4,059 | 4,262 | 5,121 | 20.2% | 5.4% |
| | Property damage | 14,294 | 13,299 | 12,410 | 14,147 | 19,505 | 37.9% | 8.1% |
| | **Total** | 18,587 | 17,542 | 16,632 | 18,594 | 24,810 | 33.4% | 7.5% |
| | *Fatal, per 100m VMT* | *0.19* | *0.17* | *0.21* | *0.23* | *0.23* | *-0.5%* | *4.8%* |
| | *Total, per 100m VMT* | *25.69* | *22.65* | *21.15* | *23.43* | *31.26* | *33.4%* | *5.0%* |
| | Injuries in speeding collisions, by person type and injury status | | | | | | Annual rate of change | |
| **Person type** | **Injury status** | **2010** | **2011** | **2012** | **2013** | **2014** | **2013-14** | **2010-14** |
| Driver | Fatal | 100 | 106 | 131 | 147 | 149 | 1.4% | 10.5% |
| | Incapacitating | 382 | 409 | 435 | 410 | 707 | 72.4% | 16.6% |
| | Non-incapacitating | 3,752 | 3,736 | 3,609 | 3,813 | 4,357 | 14.3% | 3.8% |
| | **Subtotal** | **4,234** | **4,251** | **4,175** | **4,370** | **5,213** | **19.3%** | **5.3%** |
| Injured occupant | Fatal | 42 | 38 | 40 | 65 | 44 | -32.3% | 1.2% |
| | Incapacitating | 174 | 150 | 192 | 157 | 321 | 104.5% | 16.5% |
| | Non-incapacitating | 1,590 | 1,461 | 1,457 | 1,583 | 1,710 | 8.0% | 1.8% |
| | **Subtotal** | **1,806** | **1,649** | **1,689** | **1,805** | **2,075** | **15.0%** | **3.5%** |
| Non-motorist | Fatal | 6 | 7 | 4 | 4 | 8 | 100.0% | 7.5% |
| | Incapacitating | 15 | 19 | 19 | 19 | 24 | 26.3% | 12.5% |
| | Non-incapacitating | 87 | 85 | 81 | 90 | 85 | -5.6% | -0.6% |
| | **Subtotal** | **108** | **111** | **104** | **113** | **117** | **3.5%** | **2.0%** |
| All | Fatal | 148 | 151 | 175 | 216 | 201 | -6.9% | 8.0% |
| | Incapacitating | 571 | 578 | 646 | 586 | 1,052 | 79.5% | 16.5% |
| | Non-incapacitating | 5,429 | 5,282 | 5,147 | 5,486 | 6,152 | 12.1% | 3.2% |
| | **Total** | **6,148** | **6,011** | **5,968** | **6,288** | **7,405** | **17.8%** | **4.8%** |

Source:  Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) See glossary for definition of *speeding*.
2) *Non-fatal injury* collisions are those with no fatalities and at least one injury reported as *incapacitating, non-incapacitating,* or *possible.*
3) *Non-incapacitating* includes injuries reported as *non-incapacitating* and *possible.*
4) *Non-motorist* includes *pedestrians, pedalcyclists,* and *animal-drawn vehicle occupants.*

## Table 2.7. Disregarding-a-signal collisions and related injuries in Indiana, 2010-2014

| | Disregarded traffic signal collisions, by severity | | | | | Annual rate of change | |
|---|---|---|---|---|---|---|---|
| Severity | 2010 | 2011 | 2012 | 2013 | 2014 | 2013-14 | 2010-14 |
| Fatal | 15 | 15 | 22 | 19 | 16 | -15.8% | 1.6% |
| Non-fatal injury | 1,521 | 1,452 | 1,578 | 1,523 | 1,541 | 1.2% | 0.3% |
| Property damage | 2,480 | 2,490 | 2,413 | 2,630 | 2,641 | 0.4% | 1.6% |
| **Total** | 4,016 | 3,957 | 4,013 | 4,172 | 4,198 | 0.6% | 1.1% |
| *Fatal, per 100m VMT* | *0.02* | *0.02* | *0.03* | *0.02* | *0.02* | *-15.8%* | *-0.7%* |
| *Total, per 100m VMT* | *5.55* | *5.11* | *5.10* | *5.26* | *5.29* | *0.6%* | *-1.2%* |

| Person type | Injuries in disregarded traffic signal collisions, by person type and injury status | | | | | Annual rate of change | |
|---|---|---|---|---|---|---|---|
| | Injury status | 2010 | 2011 | 2012 | 2013 | 2014 | 2013-14 | 2010-14 |
| Driver | Fatal | 12 | 12 | 14 | 15 | 14 | -6.7% | 3.9% |
| | Incapacitating | 82 | 107 | 124 | 89 | 152 | 70.8% | 16.7% |
| | Non-incapacitating | 1,663 | 1,533 | 1,718 | 1,656 | 1,606 | -3.0% | -0.9% |
| | **Subtotal** | **1,757** | **1,652** | **1,856** | **1,760** | **1,772** | **0.7%** | **0.2%** |
| Injured occupant | Fatal | 3 | 5 | 8 | 5 | 4 | -20.0% | 7.5% |
| | Incapacitating | 46 | 35 | 30 | 40 | 79 | 97.5% | 14.5% |
| | Non-incapacitating | 670 | 591 | 700 | 724 | 598 | -17.4% | -2.8% |
| | **Subtotal** | **719** | **631** | **738** | **769** | **681** | **-11.4%** | **-1.3%** |
| Non-motorist | Fatal | 0 | 0 | 1 | 0 | 0 | -- | -- |
| | Incapacitating | 0 | 0 | 3 | 2 | 0 | -100.0% | -- |
| | Non-incapacitating | 11 | 15 | 18 | 10 | 9 | -10.0% | -4.9% |
| | **Subtotal** | **11** | **15** | **22** | **12** | **9** | **-25.0%** | **-4.9%** |
| All | Fatal | 15 | 17 | 23 | 20 | 18 | -10.0% | 4.7% |
| | Incapacitating | 128 | 142 | 157 | 131 | 231 | 76.3% | 15.9% |
| | Non-incapacitating | 2,344 | 2,139 | 2,436 | 2,390 | 2,213 | -7.4% | -1.4% |
| | **Total** | **2,487** | **2,298** | **2,616** | **2,541** | **2,462** | **-3.1%** | **-0.3%** |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) See glossary for definition of *disregarding a signal*.
2) *Non-fatal injury* collisions are those with no fatalities and at least one injury reported as *incapacitating, non-incapacitating,* or *possible*.
3) *Non-incapacitating* includes injuries reported as *non-incapacitating* and *possible*.
4) *Non-motorist* includes *pedestrians, pedalcyclists,* and *animal-drawn vehicle occupants*.

**Table 2.8  Hit-and-run collisions and related injuries in Indiana, 2010-2014**

| | | Hit-and-run collisions, by severity | | | | | Annual rate of change | |
|---|---|---|---|---|---|---|---|---|
| | **Severity** | **2010** | **2011** | **2012** | **2013** | **2014** | **2013-14** | **2010-14** |
| | Fatal | 26 | 27 | 33 | 27 | 38 | 40.7% | 10.0% |
| | Non-fatal injury | 1,857 | 1,829 | 1,844 | 1,791 | 1,843 | 2.9% | -0.2% |
| | Property damage | 21,342 | 20,823 | 21,202 | 21,533 | 22,704 | 5.4% | 1.6% |
| | **Total** | 23,225 | 22,679 | 23,079 | 23,351 | 24,585 | 5.3% | 1.4% |
| | *Fatal, per 100m VMT* | *0.04* | *0.03* | *0.04* | *0.03* | *0.05* | *40.7%* | *7.4%* |
| | *Total, per 100m VMT* | *32.10* | *29.28* | *29.35* | *29.42* | *30.98* | *5.3%* | *-0.9%* |
| | | Injuries in hit-and-run collisions, by person type and injury status | | | | | Annual rate of change | |
| **Person type** | **Injury status** | **2010** | **2011** | **2012** | **2013** | **2014** | **2013-14** | **2010-14** |
| Driver | Fatal | 10 | 3 | 14 | 10 | 9 | -10.0% | -2.6% |
| | Incapacitating | 55 | 47 | 65 | 64 | 110 | 71.9% | 18.9% |
| | Non-incapacitating | 1,214 | 1,214 | 1,251 | 1,219 | 1,253 | 2.8% | 0.8% |
| | **Subtotal** | **1,279** | **1,264** | **1,330** | **1,293** | **1,372** | **6.1%** | **1.8%** |
| Injured occupant | Fatal | 4 | 3 | 5 | 4 | 7 | 75.0% | 15.0% |
| | Incapacitating | 35 | 32 | 60 | 30 | 72 | 140.0% | 19.8% |
| | Non-incapacitating | 555 | 502 | 543 | 614 | 525 | -14.5% | -1.4% |
| | **Subtotal** | **594** | **537** | **608** | **648** | **604** | **-6.8%** | **0.4%** |
| Non-motorist | Fatal | 12 | 21 | 14 | 14 | 25 | 78.6% | 20.1% |
| | Incapacitating | 46 | 43 | 39 | 31 | 49 | 58.1% | 1.6% |
| | Non-incapacitating | 365 | 369 | 299 | 290 | 244 | -15.9% | -9.6% |
| | **Subtotal** | **423** | **433** | **352** | **335** | **318** | **-5.1%** | **-6.9%** |
| All | Fatal | 26 | 27 | 33 | 28 | 41 | 46.4% | 12.1% |
| | Incapacitating | 136 | 122 | 164 | 125 | 231 | 84.8% | 14.2% |
| | Non-incapacitating | 2,134 | 2,085 | 2,093 | 2,123 | 2,022 | -4.8% | -1.3% |
| | **Total** | **2,296** | **2,234** | **2,290** | **2,276** | **2,294** | **0.8%** | **0.0%** |

**Source:  Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015**

**Notes:**
**1) See glossary for definition of** *hit-and-run.*
**2)** *Non-fatal injury* **collisions are those with no fatalities and at least one injury reported as** *incapacitating, non-incapacitating,* **or** *possible.*
**3)** *Non-incapacitating* **includes injuries reported as** *non-incapacitating* **and** *possible.*
**4)** *Non-motorist* **includes** *pedestrians, pedalcyclists,* **and** *animal-drawn vehicle occupants.*

### Table 2.9. Cell phone-distracted collisions and related injuries in Indiana, 2010-2014

| | Cell phone-distracted collisions, by severity | | | | | Annual rate of change | |
|---|---|---|---|---|---|---|---|
| Severity | 2010 | 2011 | 2012 | 2013 | 2014 | 2013-14 | 2010-14 |
| Fatal | 4 | 5 | 7 | 5 | 6 | 20.0% | 10.7% |
| Non-fatal injury | 334 | 320 | 283 | 269 | 275 | 2.2% | -4.7% |
| Property damage | 949 | 845 | 845 | 795 | 790 | -0.6% | -4.5% |
| **Total** | **1,287** | **1,170** | **1,135** | **1,069** | **1,071** | 0.2% | -4.5% |
| *Fatal, per 100m VMT* | *0.006* | *0.006* | *0.009* | *0.006* | *0.008* | *20.0%* | *8.1%* |
| *Total, per 100m VMT* | *1.78* | *1.51* | *1.44* | *1.35* | *1.35* | *0.2%* | *-6.7%* |

| | Injuries in cell phone-distracted collisions, by person type and injury status | | | | | | Annual rate of change | |
|---|---|---|---|---|---|---|---|---|
| Person type | Injury status | 2010 | 2011 | 2012 | 2013 | 2014 | 2013-14 | 2010-14 |
| | Fatal | 5 | 4 | 3 | 4 | 6 | 50.0% | 4.7% |
| | Incapacitating | 19 | 18 | 22 | 16 | 30 | 87.5% | 12.1% |
| Driver | Non-incapacitating | 306 | 289 | 262 | 265 | 262 | -1.1% | -3.8% |
| | **Subtotal** | **330** | **311** | **287** | **285** | **298** | **4.6%** | **-2.5%** |
| | Fatal | 0 | 1 | 3 | 1 | 0 | -100.0% | na |
| | Incapacitating | 3 | 1 | 5 | 5 | 11 | 120.0% | 38.4% |
| Injured occupant | Non-incapacitating | 110 | 106 | 90 | 78 | 85 | 9.0% | -6.2% |
| | **Subtotal** | **113** | **108** | **98** | **84** | **96** | **14.3%** | **-4.0%** |
| | Fatal | 0 | 2 | 3 | 1 | 0 | -100.0% | na |
| | Incapacitating | 3 | 3 | 1 | 2 | 0 | -100.0% | na |
| Non-motorist | Non-incapacitating | 11 | 13 | 13 | 10 | 11 | 10.0% | 0.0% |
| | **Subtotal** | **14** | **18** | **17** | **13** | **11** | **-15.4%** | **-5.9%** |
| | Fatal | 5 | 7 | 9 | 6 | 6 | 0.0% | 4.7% |
| | Incapacitating | 25 | 22 | 28 | 23 | 41 | 78.3% | 13.2% |
| All | Non-incapacitating | 427 | 408 | 365 | 353 | 358 | 1.4% | -4.3% |
| | **Total** | **457** | **437** | **402** | **382** | **405** | **6.0%** | **-3.0%** |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) See glossary for definition of *cell phone-distracted*.
2) *Non-fatal injury* collisions are those with no fatalities and at least one injury reported as *incapacitating, non-incapacitating,* or *possible*.
3) *Non-incapacitating* includes injuries reported as *non-incapacitating* and *possible*.
4) *Non-motorist* includes *pedestrians, pedalcyclists,* and *animal-drawn vehicle occupants*.

**Table 2.10.  Indiana collisions and injuries, by driver action, 2010-2014**

| Action | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|
| **Fatal collisions** | | | | | |
| Alcohol-impaired | 18.6% | 20.4% | 23.2% | 17.2% | 13.4% |
| Aggressive driving | 3.1% | 4.4% | 4.6% | 7.7% | 6.6% |
| Speeding | 19.9% | 19.6% | 22.6% | 26.1% | 26.2% |
| Disregarded traffic signal | 2.1% | 2.2% | 3.1% | 2.7% | 2.3% |
| Hit-and-run | 3.7% | 4.0% | 4.6% | 3.8% | 5.4% |
| Cell phone-distracted | 0.6% | 0.7% | 1.0% | 0.7% | 0.9% |
| **Total collisions** | | | | | |
| Alcohol-impaired | 2.6% | 2.6% | 2.7% | 2.5% | 2.2% |
| Aggressive driving | 2.1% | 2.3% | 2.4% | 2.6% | 3.0% |
| Speeding | 9.6% | 9.3% | 8.8% | 9.6% | 12.1% |
| Disregarded traffic signal | 2.1% | 2.1% | 2.1% | 2.2% | 2.0% |
| Hit-and-run | 12.0% | 12.0% | 12.2% | 12.1% | 12.0% |
| Cell phone-distracted | 0.7% | 0.6% | 0.6% | 0.6% | 0.5% |
| **Fatal injuries** | | | | | |
| Alcohol-impaired | 17.9% | 19.3% | 22.7% | 17.1% | 13.6% |
| Aggressive driving | 3.1% | 5.2% | 4.6% | 8.2% | 7.1% |
| Speeding | 19.7% | 20.1% | 22.4% | 27.6% | 27.1% |
| Disregarded traffic signal | 2.0% | 2.3% | 2.9% | 2.6% | 2.4% |
| Hit-and-run | 3.5% | 3.6% | 4.2% | 3.6% | 5.5% |
| Cell phone-distracted | 0.7% | 0.9% | 1.2% | 0.8% | 0.8% |
| **Total injuries** | | | | | |
| Alcohol-impaired | 4.6% | 4.7% | 4.7% | 4.6% | 4.0% |
| Aggressive driving | 3.8% | 3.9% | 4.1% | 4.8% | 5.3% |
| Speeding | 12.5% | 13.0% | 12.4% | 13.5% | 15.6% |
| Disregarded traffic signal | 5.1% | 5.0% | 5.4% | 5.5% | 5.2% |
| Hit-and-run | 5.1% | 5.3% | 5.2% | 5.3% | 5.3% |
| Cell phone-distracted | 1.0% | 1.0% | 0.9% | 0.8% | 0.9% |

Source:  Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Note:  *Total injuries* include injuries reported as *fatal, incapacitating, non-incapacitating,* and *possible.*

**Figure 2.3.   Indiana collisions, by locale, 2010-2014**

### All *urban* collisions

| | | | | |
|---|---|---|---|---|
| 122,163 | 124,696 | 126,910 | 130,689 | 138,760 |
| 2010 | 2011 | 2012 | 2013 | 2014 |

### Fatal *urban* collisions

| | | | | |
|---|---|---|---|---|
| 280 | 263 | 269 | 259 | 285 |
| 2010 | 2011 | 2012 | 2013 | 2014 |

### All *suburban* collisions

| | | | | |
|---|---|---|---|---|
| 21,143 | 22,826 | 22,849 | 24,775 | 27,129 |
| 2010 | 2011 | 2012 | 2013 | 2014 |

### Fatal *suburban* collisions

| | | | | |
|---|---|---|---|---|
| 129 | 166 | 200 | 203 | 167 |
| 2010 | 2011 | 2012 | 2013 | 2014 |

### All *exurban* collisions

| | | | | |
|---|---|---|---|---|
| 9,567 | 10,492 | 10,707 | 11,946 | 12,953 |
| 2010 | 2011 | 2012 | 2013 | 2014 |

### Fatal *exurban* collisions

| | | | | |
|---|---|---|---|---|
| 114 | 98 | 100 | 114 | 101 |
| 2010 | 2011 | 2012 | 2013 | 2014 |

### All *rural* collisions

| | | | | |
|---|---|---|---|---|
| 11,265 | 12,594 | 13,060 | 14,102 | 14,827 |
| 2010 | 2011 | 2012 | 2013 | 2014 |

### Fatal *rural* collisions

| | | | | |
|---|---|---|---|---|
| 113 | 113 | 137 | 127 | 115 |
| 2010 | 2011 | 2012 | 2013 | 2014 |

Source:  Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015
Notes:
1) See glossary for definition of census locale.
2) Excludes collisions where locale could not be determined.

# CHAPTER 3
# COLLISIONS

# COLLISIONS, 2014

This section summarizes single-year (2013 to 2014) and 5-year (2010-2014) collision trends in Indiana. In 2014, 205,532 traffic collisions occurred in Indiana, a 6.4 percent increase from 2013. Fatal collisions decreased 1.1 percent from 710 in 2013 to 702 in 2014. From 2010 to 2014, total collisions rose 1.5 percent annually (Table 3.1). The rate of fatal collisions decreased from 3.7 per 1,000 collisions in 2013 to 3.4 in 2014 (Figure 3.1).

### Non-motorists

In 2014, collisions involving pedestrians rose 4.4 percent from 2013. The rate of pedestrian collisions per 1,000 collisions fell slightly from 8.3 to 8.1. Collisions involving pedalcyclists decreased by 10.0 percent between 2013 and 2014. The rate of collisions involving pedalcyclists per 1,000 collisions decreased from 5.3 to 4.5 from 2013 to 2014 (Figure 3.2).

### Month, Day, and Time

The largest number of collisions per month in 2014 occurred in the late fall and winter (October, November, January, and February). In 2014, January accounted for the largest monthly total collisions. Summer and early fall months (July, August, and October) accounted for the highest monthly fatal collisions (Table 3.2).

In general, collisions were most common on weekdays during 3pm - 5:59pm. In 2014, the highest proportion of fatal collisions occurred on Sundays between the hours of 3am and 5:59am, and on Wednesdays during the 12am – 2:59am time frame (Table 3.3).

On average, monthly counts of daytime collisions are higher than counts of nighttime collisions. Average monthly daytime collisions in 2014 were 11,860 compared to 5,268 nighttime collisions. Both daytime and nighttime counts exceeded monthly averages in January, October, and November (Figure 3.3). Monthly average fatal collisions are slightly higher during the day (30) than night (28). The lowest number of daytime fatal collisions occurred in February (Figure 3.4).

In 2014, alcohol-impaired collisions represented 2.2 percent of all collisions. Collisions that involved speeding accounted for 12.1 percent of total collisions, and hit-and-run collisions accounted for 12 percent of total collisions. Speed-related collisions were proportionally most likely to occur during winter and early spring months (November–March). The highest proportion of alcohol-impaired collisions occurred in May, July, and August (Table 3.4). In 2014, speed-related collisions represented 26.2 percent (184 of 702) of fatal collisions; alcohol-impaired collisions accounted for 13.4 percent (94 of 702) of fatal collisions (not shown in table).

With regard to time of day, the highest proportion of hit-and-run and alcohol-impaired collisions occurred from 12am – 5:59am across all days of the week, in particular on Saturday and Sunday. Proportions of speed-related collisions generally were greater during the periods from 12am to noon (Table 3.5). Distracted, any type collisions were highest during the afternoon period (noon to 5:59pm) each day of the week.

### Primary Factor

In 2014, driver-related factors accounted for 85 percent of collisions and 96 percent of fatal collisions (calculated from Table 3.6). Driver unsafe actions represented the largest number of collisions in 2014. Within the driver unsafe actions category, primary factors classified as following too closely and failure to yield right of way accounted for the most collisions. Proportional to all fatal collisions, ran off road was the most common primary factor within the driver loss of control category. Rates of fatal and incapacitating injury collisions were higher among primary factors attributed to driver actions (27.4) than those with primary factors attributed to vehicles or the environment. In 2014, 74 of 1,000 collisions where the driver was identified with a cognitive/physical impairment were fatal or incapacitating injury collisions (Table 3.6).

Fatal collisions were less likely than non-fatal collisions to have been attributable to driver unsafe actions. Driver loss of control accounted for 26 percent of all fatal collisions, but only 10 percent of non-fatal collisions. Environmental factors (12 percent) were more likely to have been the primary factor in non-fatal collisions than in fatal collisions (Figure 3.5).

### Census Locale

Collision counts in 2014 were higher in Indiana urban (138,760) and suburban (27,129) areas than surrounding exurban and rural locales. However, rates of fatal and incapacitating injury collisions per 1,000 total collisions were higher in rural (41.2) and exurban (39.2) locales than in areas identified as suburban and urban. Between 2013 and 2014, rates of fatal and incapacitating injury collisions increased across all locales (Figure 3.6). This increase may be linked to the redefinition of incapacitating injury categories that resulted in count increases. In general during 2010 to 2014, collision counts were highest on local/city roads (92,126 in 2014) and lowest on interstates. Rates of fatal and incapacity injury collisions were higher on county roads and state roads than on other road types (Figure 3.7).

### Road Parameters and Manner of Collisions

When observing collisions by junction type, 72 percent of fatal collisions occurred at road segments with no junction (calculated from table). Collisions that occurred on a curved road had a higher rate of serious injury per 1,000 collisions (40.2 in 2014) than those on a straight road (23.8) (Table 3.7). Rear end as the manner of collision accounted for 23 percent of all collisions. Ran off road crashes accounted for 31 percent of fatal collisions (calculated from table), and had a fatal and incapacitating injury per 1,000 collision rate of 53.6 in 2014 (Table 3.8).

injury per 1,000 collision rate of 53.6 in 2014 (Table 3.8).

### Traffic Control Type and Environmental Conditions

Collisions that involved traffic control types identified as *no passing zone* (48.0), *person directing traffic* (44.6), and *railroad crossing* (36.9) had the highest rates of fatal and incapacitating injury collisions (Table 3.9). Thirty-two percent of fatal collisions occurred on *dark (not lighted)* roads. Collisions on roads that were *dark (not lighted)* had the highest rates of fatal and incapacitating injury collisions (37.9. per 1,000 collisions) for light conditions. *Fog/smoke/smog* (45.3) had the highest rate of fatal and incapacitating injury collisions per 1,000 collisions by weather conditions (Table 3.10).

### Economic Costs

In 2014, the estimated economic cost of Indiana traffic collisions totaled $3.8 billion. On average, the cost of each collision was estimated at $18,424. The estimated economic cost of *speeding* collisions was $616 million, with an average cost of $24,814. The average cost of *alcohol-impaired* collisions was $41,776, with a total economic cost of $191 million (Table 3.11 and Figure 3.8).

### Table 3.1. Indiana traffic collisions, by collision severity, 2010-2014

|  | 2010 | 2011 | 2012 | 2013 | 2014 | Annual rate of change | |
|---|---|---|---|---|---|---|---|
|  |  |  |  |  |  | 2013-14 | 2010-14 |
| **All collisions** | **193,379** | **188,453** | **189,160** | **193,205** | **205,532** | **6.4%** | **1.5%** |
| Fatal | 700 | 675 | 720 | 710 | 702 | -1.1% | 0.1% |
| Incapacitating | 2,919 | 2,866 | 3,240 | 2,937 | 4,418 | 50.4% | 10.9% |
| Non-incapacitating | 31,228 | 29,923 | 30,892 | 29,909 | 29,405 | -1.7% | -1.5% |
| Property damage only | 158,532 | 154,989 | 154,308 | 159,649 | 171,007 | 7.1% | 1.9% |

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

### Figure 3.1. Indiana fatal traffic collisions, 2010-2014
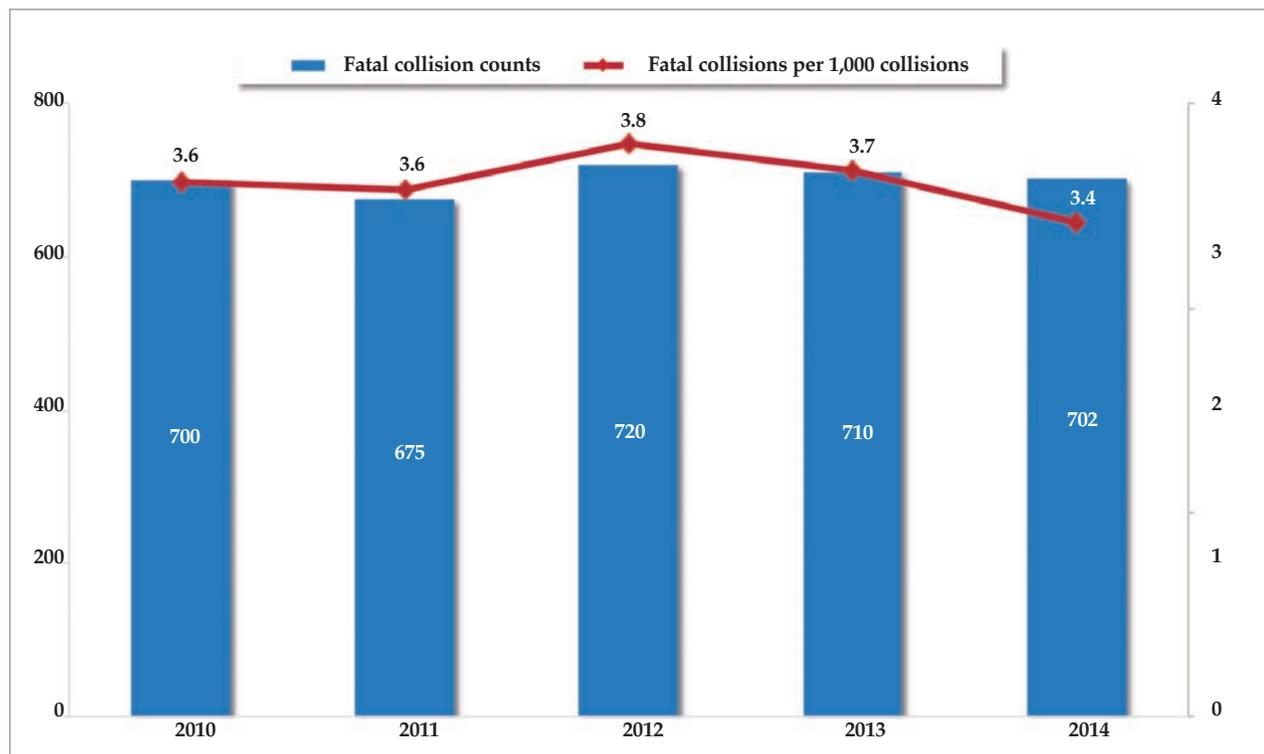


Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

Note: The most recent ARIES upgrade added a clarification to reporting officers on the definition of incapacitating injuries criteria to include "transported from scene for treatment"; therefore, 2014 increases in incapacitating injuries should be interpreted with caution.

**Figure 3.2.  Indiana collisions involving pedestrians and pedalcyclists, 2010-2014**



Pedestrian collision counts / Pedestrian collisions per 1,000 collisions

| Year | Pedestrian collision counts | Pedestrian collisions per 1,000 collisions |
|------|------|------|
| 2010 | 1,728 | 8.9 |
| 2011 | 1,720 | 9.1 |
| 2012 | 1,679 | 8.9 |
| 2013 | 1,601 | 8.3 |
| 2014 | 1,672 | 8.1 |

Pedalcyclist collision counts / Pedalcyclist collisions per 1,000 collisions

| Year | Pedalcyclist collision counts | Pedalcyclist collisions per 1,000 collisions |
|------|------|------|
| 2010 | 1,035 | 5.4 |
| 2011 | 946 | 5.0 |
| 2012 | 1,104 | 5.8 |
| 2013 | 1,021 | 5.3 |
| 2014 | 919 | 4.5 |

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

## Table 3.2. Indiana traffic collisions, by month, 2013-2014

| Month | Fatal collisions | | | Total collisions | | | % Change (2013-14) | |
|---|---|---|---|---|---|---|---|---|
| | 2013 | 2014 | Change | 2013 | 2014 | Change | Fatal | Total |
| Jan | 46 | 37 | -9 | 15,487 | 23,532 | 8,045 | -19.6% | 51.9% |
| Feb | 43 | 35 | -8 | 14,258 | 19,371 | 5,113 | -18.6% | 35.9% |
| Mar | 54 | 46 | -8 | 15,949 | 15,514 | -435 | -14.8% | -2.7% |
| Apr | 65 | 46 | -19 | 14,038 | 14,192 | 154 | -29.2% | 1.1% |
| May | 51 | 66 | 15 | 16,325 | 15,904 | -421 | 29.4% | -2.6% |
| Jun | 51 | 63 | 12 | 15,267 | 15,364 | 97 | 23.5% | 0.6% |
| Jul | 57 | 74 | 17 | 15,017 | 14,912 | -105 | 29.8% | -0.7% |
| Aug | 76 | 83 | 7 | 15,502 | 15,636 | 134 | 9.2% | 0.9% |
| Sep | 78 | 65 | -13 | 15,765 | 15,716 | -49 | -16.7% | -0.3% |
| Oct | 71 | 69 | -2 | 17,640 | 18,805 | 1,165 | -2.8% | 6.6% |
| Nov | 62 | 55 | -7 | 18,449 | 19,336 | 887 | -11.3% | 4.8% |
| Dec | 56 | 63 | 7 | 19,508 | 17,250 | -2,258 | 12.5% | -11.6% |
| Total | 710 | 702 | -8 | 193,205 | 205,532 | 12,327 | -1.1% | 6.4% |

Low — High

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

## Table 3.3. Indiana traffic collisions, by day of week and time of day, 2014

| Day of week | Time of day | | | | | | | | All hours |
|---|---|---|---|---|---|---|---|---|---|
| | 12am-2:59am | 3am-5:59am | 6am-8:59am | 9am-11:59am | 12pm-2:59pm | 3pm-5:59pm | 6pm-8:59pm | 9pm-11:59pm | |
| Total collisions | 8,710 | 9,276 | 27,149 | 28,541 | 37,601 | 49,027 | 28,594 | 16,634 | 205,532 |
| Sunday | 1,980 | 1,516 | 1,473 | 2,702 | 3,810 | 3,971 | 3,355 | 1,930 | 20,737 |
| Monday | 863 | 1,115 | 4,072 | 3,902 | 5,223 | 7,326 | 3,920 | 1,918 | 28,339 |
| Tuesday | 947 | 1,263 | 5,335 | 4,277 | 5,420 | 7,762 | 3,893 | 2,016 | 30,913 |
| Wednesday | 918 | 1,280 | 4,711 | 4,177 | 5,473 | 7,593 | 4,016 | 2,096 | 30,264 |
| Thursday | 999 | 1,243 | 4,688 | 4,709 | 5,662 | 7,845 | 4,199 | 2,256 | 31,601 |
| Friday | 1,109 | 1,260 | 4,577 | 4,556 | 6,713 | 9,400 | 5,149 | 3,196 | 35,960 |
| Saturday | 1,894 | 1,599 | 2,293 | 4,218 | 5,300 | 5,130 | 4,062 | 3,222 | 27,718 |
| Fatal collisions | 66 | 63 | 71 | 76 | 89 | 126 | 111 | 100 | 702 |
| Sunday | 15 | 21 | 5 | 3 | 13 | 15 | 18 | 13 | 103 |
| Monday | 7 | 6 | 7 | 8 | 13 | 17 | 13 | 13 | 84 |
| Tuesday | 4 | 6 | 10 | 14 | 16 | 16 | 17 | 13 | 96 |
| Wednesday | 8 | 9 | 9 | 10 | 15 | 22 | 11 | 9 | 93 |
| Thursday | 7 | 6 | 10 | 19 | 7 | 20 | 11 | 14 | 94 |
| Friday | 9 | 10 | 17 | 10 | 12 | 10 | 25 | 21 | 114 |
| Saturday | 16 | 5 | 13 | 12 | 13 | 26 | 16 | 17 | 118 |
| % Fatal | 0.76% | 0.68% | 0.26% | 0.27% | 0.24% | 0.26% | 0.39% | 0.60% | 0.34% |
| Sunday | 0.76% | 1.39% | 0.34% | 0.11% | 0.34% | 0.38% | 0.54% | 0.67% | 0.50% |
| Monday | 0.81% | 0.54% | 0.17% | 0.21% | 0.25% | 0.23% | 0.33% | 0.68% | 0.30% |
| Tuesday | 0.42% | 0.48% | 0.19% | 0.33% | 0.30% | 0.21% | 0.44% | 0.64% | 0.31% |
| Wednesday | 0.87% | 0.70% | 0.19% | 0.24% | 0.27% | 0.29% | 0.27% | 0.43% | 0.31% |
| Thursday | 0.70% | 0.48% | 0.21% | 0.40% | 0.12% | 0.25% | 0.26% | 0.62% | 0.30% |
| Friday | 0.81% | 0.79% | 0.37% | 0.22% | 0.18% | 0.11% | 0.49% | 0.66% | 0.32% |
| Saturday | 0.84% | 0.31% | 0.57% | 0.28% | 0.25% | 0.51% | 0.39% | 0.53% | 0.43% |

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

Note: Limited to collisions where day and time were reported.

Low — High

**Figure 3.3. Indiana traffic collisions, by month and day/night, 2014**
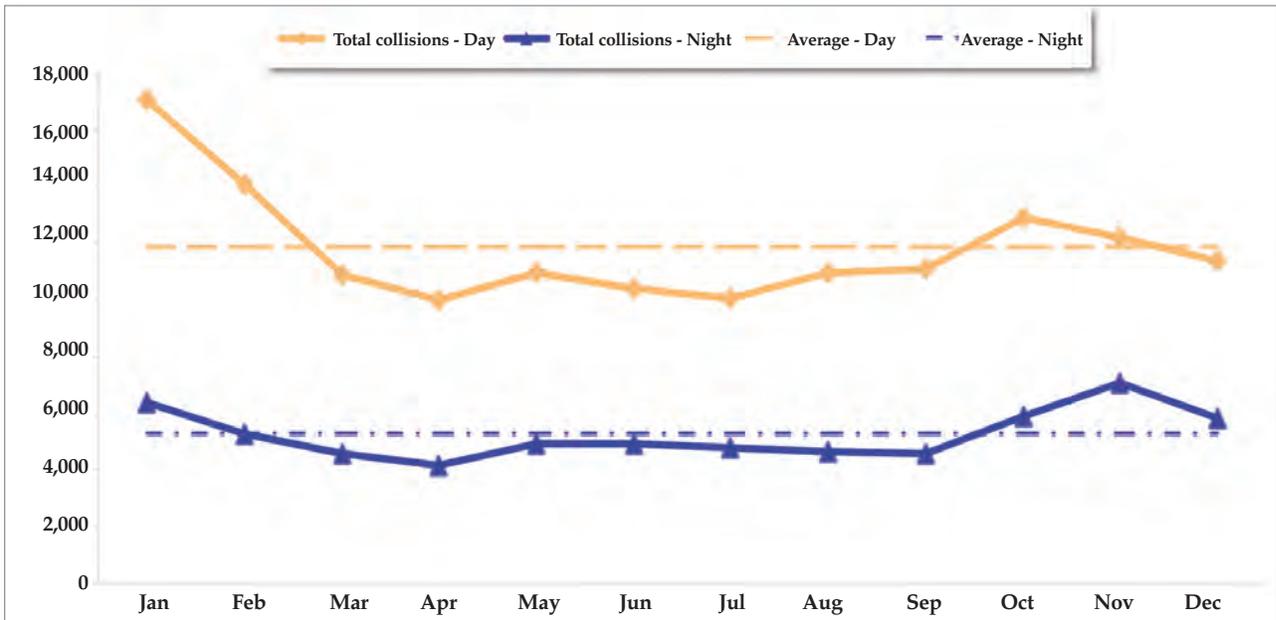


Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015
Note: Day is defined as 6am - 5:59pm. Night is defined as 6pm - 5:59am.

**Figure 3.4. Indiana fatal collisions, by month and day/night, 2014**



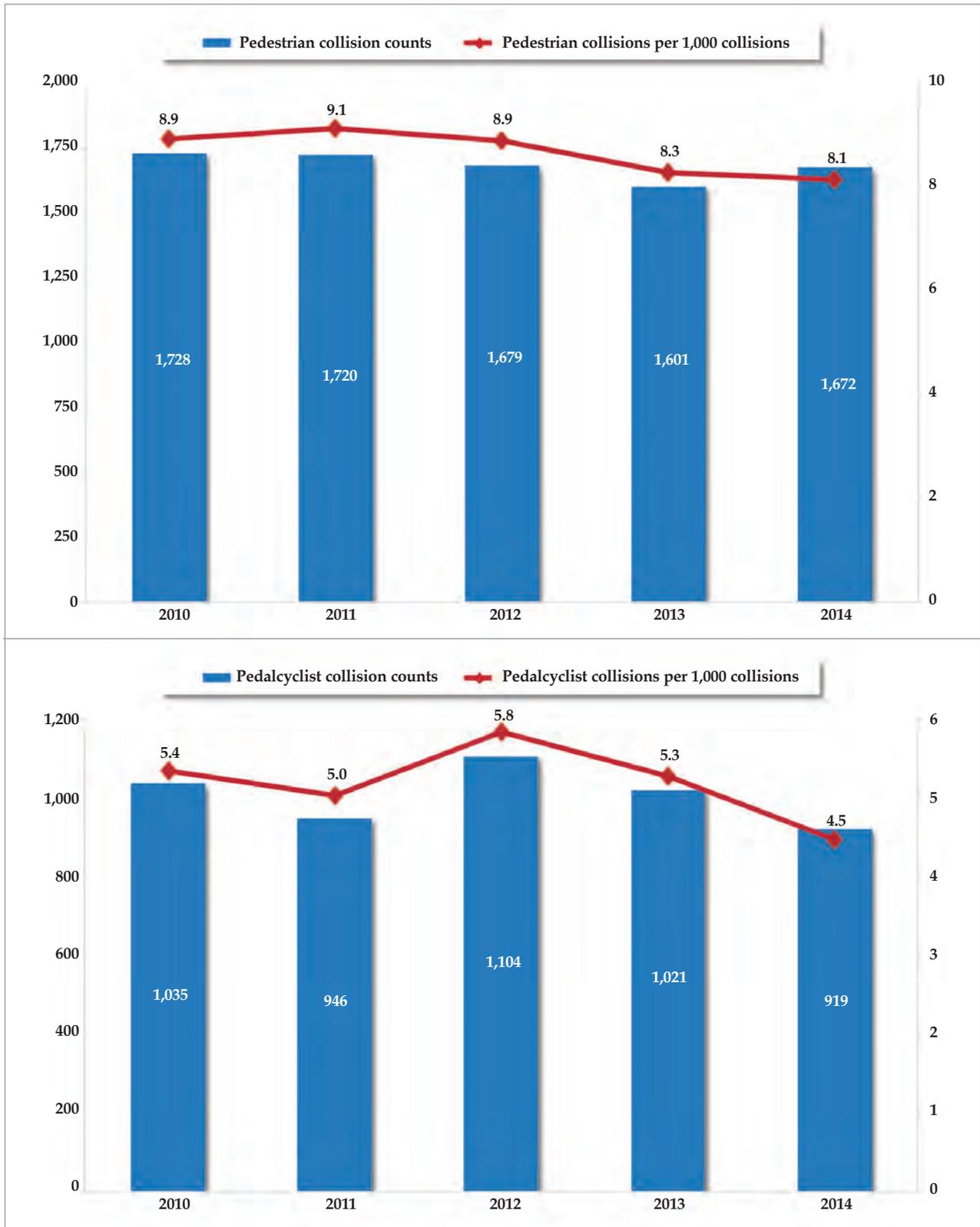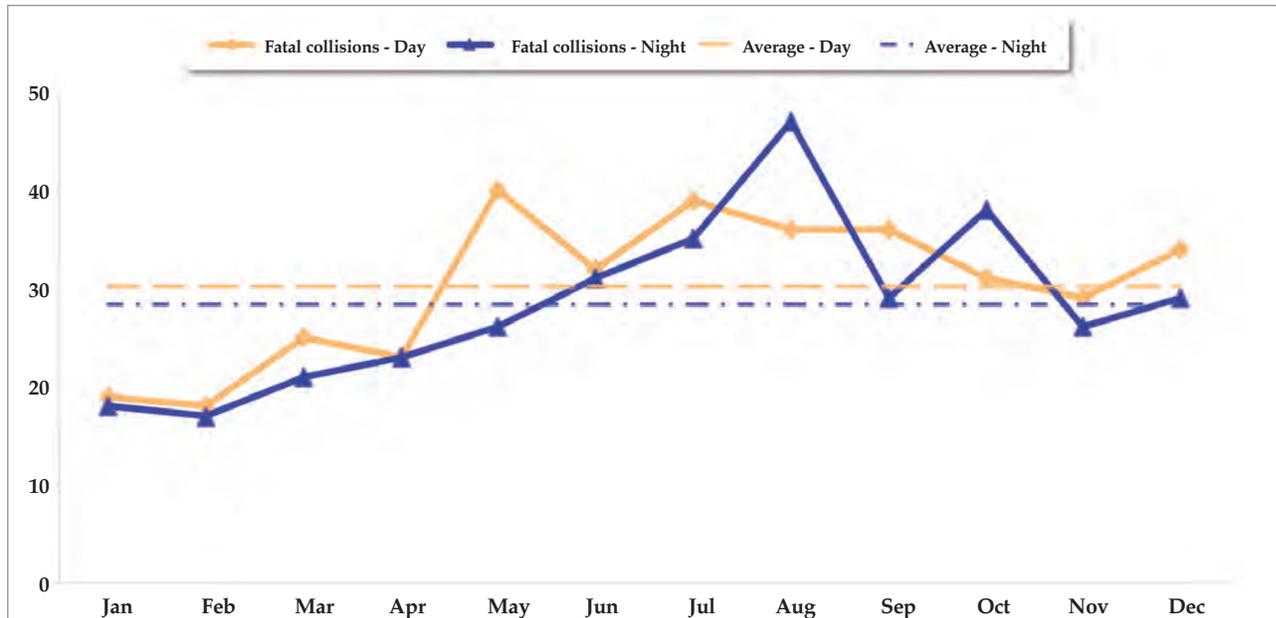Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015
Note: Day is defined as 6am - 5:59pm. Night is defined as 6pm - 5:59am.

**Table 3.4. Collisions by month and collision circumstances, 2014**

| Month | Total | Alcohol-impaired Count | As % month total | Aggressive driving Count | As % month total | Speed-related Count | As % month total | Disregard signal Count | As % month total | Hit-and-run Count | As % month total | Distracted, any type Count | As % month total | Distracted, cell phone Count | As % month total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan | 23,532 | 381 | 1.6 | 971 | 4.1 | 7,683 | 32.6 | 334 | 1.4 | 2,518 | 10.7 | 475 | 2.0 | 41 | 0.2 |
| Feb | 19,371 | 377 | 1.9 | 728 | 3.8 | 4,323 | 22.3 | 329 | 1.7 | 2,330 | 12.0 | 575 | 3.0 | 56 | 0.3 |
| Mar | 15,514 | 363 | 2.3 | 438 | 2.8 | 2,165 | 14.0 | 357 | 2.3 | 1,953 | 12.6 | 615 | 4.0 | 80 | 0.5 |
| Apr | 14,192 | 323 | 2.3 | 356 | 2.5 | 926 | 6.5 | 346 | 2.4 | 1,799 | 12.7 | 754 | 5.3 | 81 | 0.6 |
| May | 15,904 | 410 | 2.6 | 392 | 2.5 | 871 | 5.5 | 351 | 2.2 | 1,988 | 12.5 | 859 | 5.4 | 109 | 0.7 |
| Jun | 15,364 | 333 | 2.2 | 411 | 2.7 | 931 | 6.1 | 334 | 2.2 | 1,946 | 12.7 | 793 | 5.2 | 94 | 0.6 |
| Jul | 14,912 | 395 | 2.6 | 428 | 2.9 | 824 | 5.5 | 331 | 2.2 | 1,911 | 12.8 | 795 | 5.3 | 90 | 0.6 |
| Aug | 15,636 | 411 | 2.6 | 467 | 3.0 | 1,032 | 6.6 | 352 | 2.3 | 1,963 | 12.6 | 870 | 5.6 | 113 | 0.7 |
| Sep | 15,716 | 391 | 2.5 | 412 | 2.6 | 888 | 5.7 | 358 | 2.3 | 1,963 | 12.5 | 885 | 5.6 | 86 | 0.5 |
| Oct | 18,805 | 387 | 2.1 | 566 | 3.0 | 1,312 | 7.0 | 416 | 2.2 | 2,093 | 11.1 | 965 | 5.1 | 110 | 0.6 |
| Nov | 19,336 | 404 | 2.1 | 541 | 2.8 | 2,235 | 11.6 | 356 | 1.8 | 2,018 | 10.4 | 765 | 4.0 | 97 | 0.5 |
| Dec | 17,250 | 399 | 2.3 | 499 | 2.9 | 1,620 | 9.4 | 334 | 1.9 | 2,103 | 12.2 | 826 | 4.8 | 114 | 0.7 |
| Total | 205,532 | 4,574 | 2.2 | 6,209 | 3.0 | 24,810 | 12.1 | 4,198 | 2.0 | 24,585 | 12.0 | 9,177 | 4.5 | 1,071 | 0.5 |

Source: Indiana State Police Automated Reporting and Information
Exchange System (ARIES), as of March 23, 2015

Low ▬▬▬▬▬ High

Notes:
1) Color comparisons are applied within collision-type categories.
2) Counts of different collisions circumstances will not sum to the total number of collisions.
3) See glossary for definitions of *alcohol-impaired, aggressive driving, speed-related, disregard signal, hit-and-run,* and *distracted, cell phone* collisions.

**Table 3.5. Indiana traffic collisions, by day, hour, and collision circumstances, 2014**

| Day | Time | All collisions Total | Alcohol-impaired Count | As % day/time total | Aggressive driving Count | As % day/time total | Speed-related Count | As % day/time total | Disregard signal Count | As % day/time total | Hit-and-run Count | As % day/time total | Distracted, any type Count | As % day/time total | Distracted, cell phone Count | As % day/time total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mon | 12am - 5:59am | 1,978 | 124 | 6.3 | 51 | 2.6 | 300 | 15.2 | 19 | 1.0 | 305 | 15.4 | 59 | 3.0 | 10 | 0.5 |
| | 6am - 11:59am | 7,974 | 31 | 0.4 | 278 | 3.5 | 951 | 11.9 | 180 | 2.3 | 745 | 9.3 | 365 | 4.6 | 31 | 0.4 |
| | 12pm - 5:59pm | 12,549 | 71 | 0.6 | 414 | 3.3 | 1,097 | 8.7 | 257 | 2.0 | 1,265 | 10.1 | 674 | 5.4 | 75 | 0.6 |
| | 6pm - 11:59pm | 5,838 | 207 | 3.5 | 191 | 3.3 | 575 | 9.8 | 146 | 2.5 | 872 | 14.9 | 239 | 4.1 | 39 | 0.7 |
| Tue | 12am - 5:59am | 2,210 | 103 | 4.7 | 57 | 2.6 | 385 | 17.4 | 26 | 1.2 | 370 | 16.7 | 74 | 3.3 | 13 | 0.6 |
| | 6am - 11:59am | 9,612 | 30 | 0.3 | 340 | 3.5 | 1,689 | 17.6 | 211 | 2.2 | 771 | 8.0 | 363 | 3.8 | 32 | 0.3 |
| | 12pm - 5:59pm | 13,182 | 86 | 0.7 | 398 | 3.0 | 1,157 | 8.8 | 272 | 2.1 | 1,267 | 9.6 | 695 | 5.3 | 66 | 0.5 |
| | 6pm - 11:59pm | 5,909 | 207 | 3.5 | 171 | 2.9 | 583 | 9.9 | 120 | 2.0 | 840 | 14.2 | 255 | 4.3 | 36 | 0.6 |
| Wed | 12am - 5:59am | 2,198 | 152 | 6.9 | 66 | 3.0 | 369 | 16.8 | 27 | 1.2 | 399 | 18.2 | 78 | 3.5 | 16 | 0.7 |
| | 6am - 11:59am | 8,888 | 33 | 0.4 | 291 | 3.3 | 1,282 | 14.4 | 226 | 2.5 | 761 | 8.6 | 391 | 4.4 | 38 | 0.4 |
| | 12pm - 5:59pm | 13,066 | 96 | 0.7 | 418 | 3.2 | 1,089 | 8.3 | 316 | 2.4 | 1,308 | 10.0 | 682 | 5.2 | 79 | 0.6 |
| | 6pm - 11:59pm | 6,112 | 220 | 3.6 | 189 | 3.1 | 620 | 10.1 | 129 | 2.1 | 897 | 14.7 | 265 | 4.3 | 39 | 0.6 |
| Thu | 12am - 5:59am | 2,242 | 154 | 6.9 | 48 | 2.1 | 357 | 15.9 | 26 | 1.2 | 397 | 17.7 | 77 | 3.4 | 13 | 0.6 |
| | 6am - 11:59am | 9,397 | 35 | 0.4 | 312 | 3.3 | 1,732 | 18.4 | 209 | 2.2 | 724 | 7.7 | 318 | 3.4 | 23 | 0.2 |
| | 12pm - 5:59pm | 13,507 | 96 | 0.7 | 426 | 3.2 | 1,445 | 10.7 | 250 | 1.9 | 1,352 | 10.0 | 702 | 5.2 | 54 | 0.4 |
| | 6pm - 11:59pm | 6,455 | 210 | 3.3 | 172 | 2.7 | 753 | 11.7 | 107 | 1.7 | 930 | 14.4 | 279 | 4.3 | 34 | 0.5 |
| Fri | 12am - 5:59am | 2,369 | 171 | 7.2 | 63 | 2.7 | 368 | 15.5 | 35 | 1.5 | 474 | 20.0 | 64 | 2.7 | 13 | 0.5 |
| | 6am - 11:59am | 9,133 | 49 | 0.5 | 266 | 2.9 | 1,178 | 12.9 | 216 | 2.4 | 856 | 9.4 | 360 | 3.9 | 39 | 0.4 |
| | 12pm - 5:59pm | 16,113 | 122 | 0.8 | 482 | 3.0 | 1,392 | 8.6 | 284 | 1.8 | 1,567 | 9.7 | 847 | 5.3 | 85 | 0.5 |
| | 6pm - 11:59pm | 8,345 | 348 | 4.2 | 222 | 2.7 | 846 | 10.1 | 162 | 1.9 | 1,237 | 14.8 | 373 | 4.5 | 48 | 0.6 |
| Sat | 12am - 5:59am | 3,493 | 501 | 14.3 | 93 | 2.7 | 593 | 17.0 | 59 | 1.7 | 950 | 27.2 | 111 | 3.2 | 26 | 0.7 |
| | 6am - 11:59am | 6,511 | 67 | 1.0 | 173 | 2.7 | 1,140 | 17.5 | 135 | 2.1 | 655 | 10.1 | 255 | 3.9 | 28 | 0.4 |
| | 12pm - 5:59pm | 10,430 | 117 | 1.1 | 318 | 3.0 | 1,126 | 10.8 | 213 | 2.0 | 1,217 | 11.7 | 463 | 4.4 | 55 | 0.5 |
| | 6pm - 11:59pm | 7,284 | 384 | 5.3 | 200 | 2.7 | 904 | 12.4 | 147 | 2.0 | 1,254 | 17.2 | 287 | 3.9 | 45 | 0.6 |
| Sun | 12am - 5:59am | 3,496 | 587 | 16.8 | 75 | 2.1 | 587 | 16.8 | 44 | 1.3 | 976 | 27.9 | 114 | 3.3 | 32 | 0.9 |
| | 6am - 11:59am | 4,175 | 72 | 1.7 | 124 | 3.0 | 866 | 20.7 | 115 | 2.8 | 543 | 13.0 | 165 | 4.0 | 16 | 0.4 |
| | 12pm - 5:59pm | 7,781 | 90 | 1.2 | 223 | 2.9 | 800 | 10.3 | 169 | 2.2 | 911 | 11.7 | 413 | 5.3 | 52 | 0.7 |
| | 6pm - 11:59pm | 5,285 | 211 | 4.0 | 148 | 2.8 | 626 | 11.8 | 98 | 1.9 | 742 | 14.0 | 209 | 4.0 | 34 | 0.6 |
| Mon | (Total) | 28,339 | 433 | 1.5 | 934 | 3.3 | 2,923 | 10.3 | 602 | 2.1 | 3,187 | 11.2 | 1,337 | 4.7 | 155 | 0.5 |
| Tue | (Total) | 30,913 | 426 | 1.4 | 966 | 3.1 | 3,814 | 12.3 | 629 | 2.0 | 3,248 | 10.5 | 1,387 | 4.5 | 147 | 0.5 |
| Wed | (Total) | 30,264 | 501 | 1.7 | 964 | 3.2 | 3,360 | 11.1 | 698 | 2.3 | 3,365 | 11.1 | 1,416 | 4.7 | 172 | 0.6 |
| Thu | (Total) | 31,601 | 495 | 1.6 | 958 | 3.0 | 4,287 | 13.6 | 592 | 1.9 | 3,403 | 10.8 | 1,376 | 4.4 | 124 | 0.4 |
| Fri | (Total) | 35,960 | 690 | 1.9 | 1,033 | 2.9 | 3,784 | 10.5 | 697 | 1.9 | 4,134 | 11.5 | 1,644 | 4.6 | 185 | 0.5 |
| Sat | (Total) | 27,718 | 1,069 | 3.9 | 784 | 2.8 | 3,763 | 13.6 | 554 | 2.0 | 4,076 | 14.7 | 1,116 | 4.0 | 154 | 0.6 |
| Sun | (Total) | 20,737 | 960 | 4.6 | 570 | 2.7 | 2,879 | 13.9 | 426 | 2.1 | 3,172 | 15.3 | 901 | 4.3 | 134 | 0.6 |
| | | 205,532 | 4,574 | 2.2 | 6,209 | 3.0 | 24,810 | 12.1 | 4,198 | 2.0 | 24,585 | 12.0 | 9,177 | 4.5 | 1,071 | 0.5 |

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

Low      High

Notes:
1) Total daily counts exclude collisions with invalid time reported.
2) Color comparisons are applied within collision-type categories.
3) Counts of different collisions circumstances will not sum to the total number of collisions.
4) See glossary for definitions of *alcohol-impaired, aggressive driving, speed-related, disregard signal, hit-and-run,* and *distracted, cell phone collisions.*

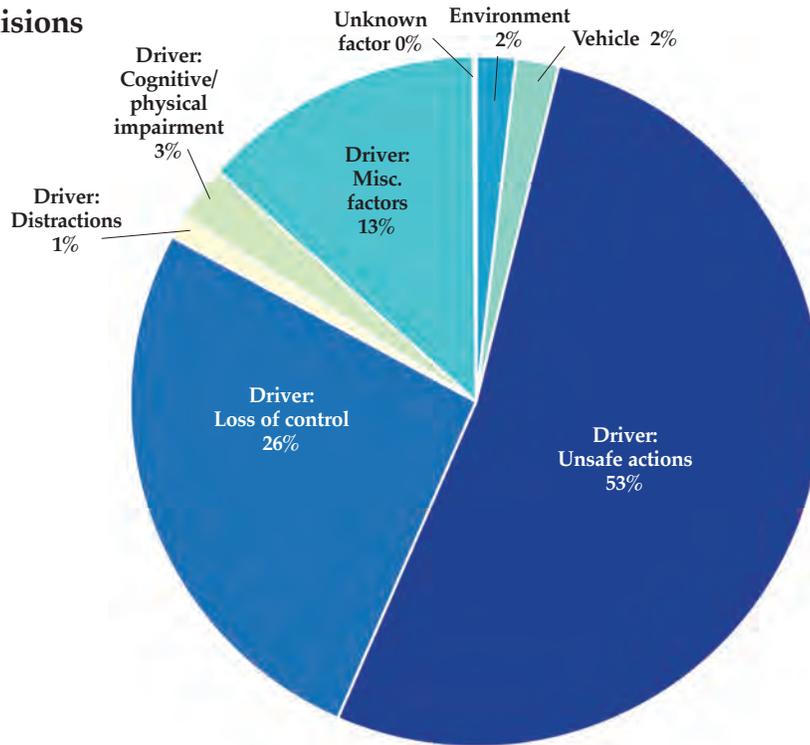## Table 3.6. Indiana collisions, by primary factor and collision severity, 2014

| Primary factor | Collisions, by severity | | | | | Fatal/incap injuries per 1,000 collisions |
|---|---|---|---|---|---|---|
| | Total | Fatal | Incapacitating | Non-incapacitating | Property damage | |
| **Driver: Unsafe actions** | **133,470** | **370** | **2,523** | **19,918** | **110,659** | **21.7** |
| Following too closely | 32,395 | 17 | 401 | 5,229 | 26,748 | 12.9 |
| Failure to yield right of way | 30,839 | 96 | 868 | 6,656 | 23,219 | 31.3 |
| Unsafe backing | 20,002 | 1 | 30 | 356 | 19,615 | 1.5 |
| Speed too fast for weather conditions | 13,812 | 26 | 235 | 1,843 | 11,708 | 18.9 |
| Unsafe lane movement | 7,266 | 15 | 100 | 649 | 6,502 | 15.8 |
| Disregard signal/Reg sign | 7,090 | 42 | 296 | 2,221 | 4,531 | 47.7 |
| Improper turning | 6,530 | 3 | 50 | 458 | 6,019 | 8.1 |
| Improper lane usage | 5,300 | 9 | 56 | 400 | 4,835 | 12.3 |
| Unsafe speed | 4,474 | 71 | 239 | 1,084 | 3,080 | 69.3 |
| Left of center | 3,558 | 78 | 190 | 786 | 2,504 | 75.3 |
| Improper passing | 1,982 | 5 | 47 | 185 | 1,745 | 26.2 |
| Wrong way on one way | 222 | 7 | 11 | 51 | 153 | 81.1 |
| **Driver: Loss of control** | **19,699** | **185** | **945** | **3,799** | **14,770** | **57.4** |
| Ran off road | 16,391 | 163 | 809 | 3,198 | 12,221 | 59.3 |
| Overcorrecting/over steering | 3,308 | 22 | 136 | 601 | 2,549 | 47.8 |
| **Driver: Distractions** | **5,527** | **8** | **116** | **970** | **4,433** | **22.4** |
| Unspecified distraction | 5,150 | 7 | 108 | 895 | 4,140 | 22.3 |
| Cell phone/other electronic device | 377 | 1 | 8 | 75 | 293 | 16.9 |
| **Driver: Cognitive/Physical impairment** | **2,130** | **18** | **140** | **645** | **1,327** | **74.2** |
| Driver asleep or fatigued | 1,399 | 5 | 61 | 357 | 976 | 47.2 |
| Driver illness | 706 | 13 | 79 | 280 | 334 | 130.3 |
| Alcoholic beverages | 23 | 0 | 0 | 7 | 16 | 0.0 |
| Illegal drugs | 2 | 0 | 0 | 1 | 1 | 0.0 |
| **Driver: Miscellaneous factors** | **13,946** | **93** | **385** | **2,063** | **11,405** | **34.3** |
| Other (unspecified) | 13,112 | 40 | 232 | 1,578 | 11,262 | 20.7 |
| Influenced by pedestrian action | 833 | 53 | 153 | 485 | 142 | 247.3 |
| (Driver not a factor) | 1 | 0 | 0 | 0 | 1 | 0.0 |
| **Driver factors (all)** | **174,772** | **674** | **4,109** | **27,395** | **142,594** | **27.4** |
| **Vehicle factors** | **5,035** | **14** | **95** | **616** | **4,310** | **21.6** |
| **Environmental factors** | **24,485** | **13** | **211** | **1,357** | **22,904** | **9.1** |
| **Unknown** | **1,240** | **1** | **3** | **37** | **1,199** | **3.2** |
| **All collisions** | **205,532** | **702** | **4,418** | **29,405** | **171,007** | **24.9** |

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

Note: *Non-incapacitating* collisions include those with one ore more *non-incapacitating* or *possible* injuries.

**Figure 3.5. Indiana traffic collisions, by primary factor and severity, 2014**

**Fatal collisions
(N = 702)**



- Unknown factor 0%
- Environment 2%
- Vehicle 2%
- Driver: Cognitive/physical impairment 3%
- Driver: Distractions 1%
- Driver: Misc. factors 13%
- Driver: Loss of control 26%
- Driver: Unsafe actions 53%

**Non-fatal collisions
(N = 204,830)**



- Driver: Cognitive/physical impairment 1%
- Unknown factor 1%
- Driver: Distractions 3%
- Driver: Misc. factors 7%
- Environment 12%
- Vehicle 2%
- Driver: Loss of control 10%
- Driver: Unsafe actions 65%

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015
Notes:
1) See Table 3.6 for definitions of factor categories related to driver actions.
2) Limited to collisions for which the primary factor is known.

**Figure 3.6. Indiana traffic collisions and fatal and incapacitating injury collision rates, by locale, 2010-2014**
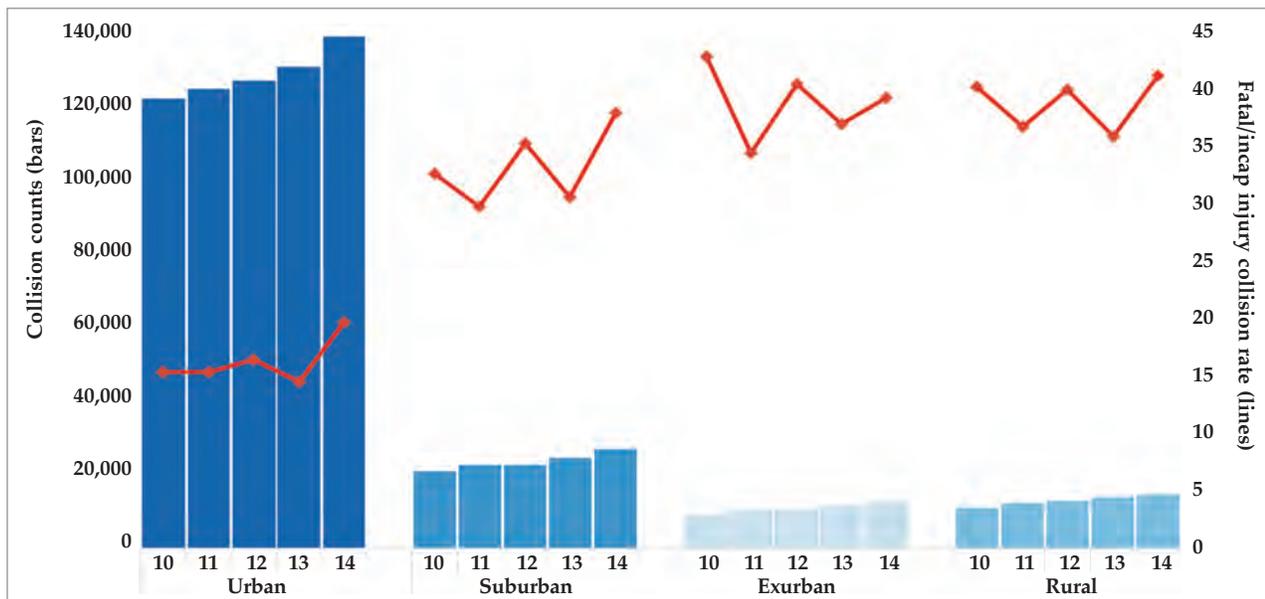


Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015
Notes:
1) Includes only collisions where valid locale was identified.
2) *Fatal* and *incapacitating injury* collision rate is calculated per 1,000 total collisions in each locale.

**Figure 3.7. Indiana traffic collisions and fatal and incapacitating injury collision rates, by road class, 2010-2014**



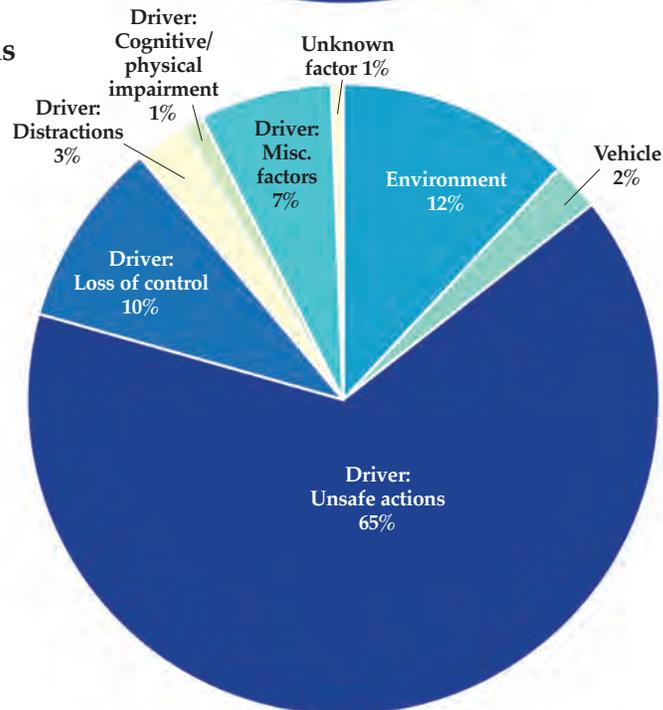Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015
Notes:
1) Excludes unknown road class.
2) The most recent ARIES upgrade added a clarification to reporting officers on the definition of incapacitating injuries criteria to include "transported from scene for treatment"; therefore, 2014 increases in incapacitating injuries should be interpreted with caution.

**Table 3.7.  Indiana traffic collisions, by severity and road parameters, 2014**

| | Collisions, by severity | | | | | Fatal/incap injuries per 1,000 collisions |
| --- | --- | --- | --- | --- | --- | --- |
| | Total | Fatal | Incapacitating | Non-incapacitating | Property damage | |
| **Total collisions** | **205,532** | **702** | **4,418** | **29,405** | **171,007** | **24.9** |
| **By junction type** | | | | | | |
| No junction involved | 137,380 | 505 | 2,880 | 16,949 | 117,046 | 24.6 |
| Four-way intersection | 40,029 | 119 | 944 | 8,276 | 30,690 | 26.6 |
| T-intersection | 21,000 | 46 | 454 | 3,207 | 17,293 | 23.8 |
| Ramp | 3,051 | 15 | 53 | 394 | 2,589 | 22.3 |
| Interchange | 1,366 | 4 | 36 | 229 | 1,097 | 29.3 |
| Traffic circle/roundabout | 1,113 | 2 | 11 | 93 | 1,007 | 11.7 |
| Y-intersection | 736 | 3 | 19 | 116 | 598 | 29.9 |
| Five point or more | 527 | 3 | 8 | 102 | 414 | 20.9 |
| Railroad crossings | 271 | 5 | 11 | 34 | 221 | 59.0 |
| Trail crossings | 15 | 0 | 2 | 5 | 8 | 133.3 |
| Unknown | 44 | 0 | 0 | 0 | 44 | 0.0 |
| **By road character** | | | | | | |
| **Straight** | **179,710** | **559** | **3,712** | **25,968** | **149,471** | **23.8** |
| Level | 150,865 | 436 | 3,045 | 21,843 | 125,541 | 23.1 |
| Graded | 22,975 | 100 | 488 | 3,211 | 19,176 | 25.6 |
| Hillcrest | 5,870 | 23 | 179 | 914 | 4,754 | 34.4 |
| **Curve** | **20,090** | **139** | **669** | **3,189** | **16,093** | **40.2** |
| Level | 12308 | 86 | 377 | 1,923 | 9,922 | 37.6 |
| Graded | 6517 | 47 | 245 | 1,065 | 5,160 | 44.8 |
| Hillcrest | 1265 | 6 | 47 | 201 | 1,011 | 41.9 |
| **Non-roadway crash** | **5,436** | **4** | **36** | **237** | **5,159** | **7.4** |
| **Unknown** | **296** | **0** | **1** | **11** | **284** | **3.4** |
| **Roadway surface type** | | | | | | |
| Asphalt | 181,588 | 630 | 3,949 | 26,163 | 150,846 | 25.2 |
| Concrete | 20,254 | 54 | 407 | 2,901 | 16,892 | 22.8 |
| Gravel | 2,563 | 13 | 40 | 229 | 2,281 | 20.7 |
| Other | 875 | 5 | 20 | 100 | 750 | 28.6 |
| Unknown | 252 | 0 | 2 | 12 | 238 | 7.9 |

Low ● ● ● ● High
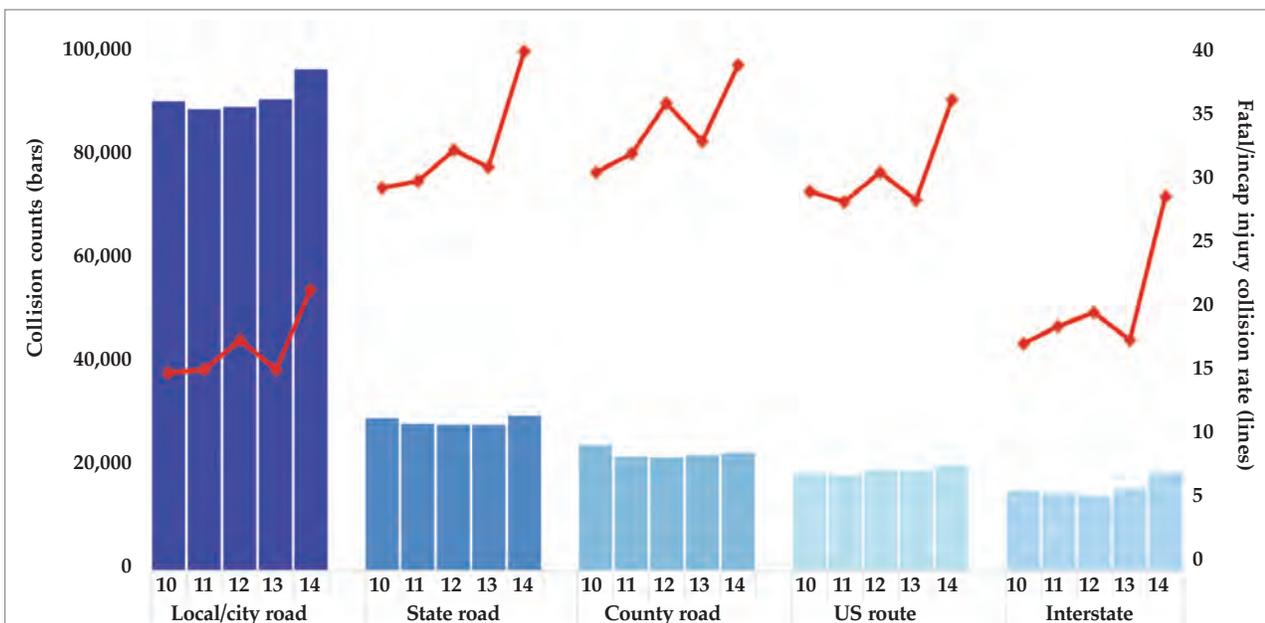
Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

Note: *Fatal* and *incapacitating injury* collision rate is calculated per 1,000 total collisions in each roadway surface type category.

## Table 3.8. Indiana traffic collisions, by severity and manner of collision, 2014

| Manner of collision | Collisions, by severity | | | | | Fata/incap injuries per 1,000 collisions |
|---|---|---|---|---|---|---|
| | Total | Fatal | Incapacitating | Non-incapacitating | Property damage | |
| **Total collisions** | **205,532** | **702** | **4,418** | **29,405** | **171,007** | **24.9** |
| Rear end | 48,162 | 76 | 719 | 8,087 | 39,280 | 16.5 |
| Right angle | 31,622 | 141 | 892 | 6,909 | 23,680 | 32.7 |
| Ran off road | 26,961 | 221 | 1,223 | 5,086 | 20,431 | 53.6 |
| Backing | 21,631 | 1 | 47 | 421 | 21,162 | 2.2 |
| Same direction sideswipe | 20,840 | 19 | 168 | 1,284 | 19,369 | 9.0 |
| Head on | 18,635 | 149 | 517 | 2,991 | 14,978 | 35.7 |
| Other collisions manner | 13,875 | 45 | 349 | 1,198 | 12,283 | 28.4 |
| Left turn | 9,295 | 16 | 237 | 1,785 | 7,257 | 27.2 |
| Opposite direction sideswipe | 5,531 | 13 | 87 | 531 | 4,900 | 18.1 |
| Right turn | 2,854 | 2 | 27 | 232 | 2,593 | 10.2 |
| Non-collision | 2,365 | 17 | 110 | 522 | 1,716 | 53.7 |
| Left/right turn | 2,304 | 0 | 36 | 297 | 1,971 | 15.6 |
| Rear to rear | 379 | 0 | 4 | 32 | 343 | 10.6 |
| Unknown | 1,078 | 2 | 2 | 30 | 1,044 | 3.7 |

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

Note: *Fatal* and *incapacitating injury* collision rate is calculated per 1,000 total collisions by each manner of collision.

Low ● ● ● ● High

## Table 3.9. Indiana collisions, by severity and traffic control type, 2014

| Traffic control type | Collisions, by severity | | | | | Fata/incap injuries per 1,000 collisions |
|---|---|---|---|---|---|---|
| | Total | Fatal | Incapacitating | Non-incapacitating | Property damage | |
| **Total collisions** | **205,532** | **702** | **4,418** | **29,405** | **171,007** | **24.9** |
| Lane control | 49,906 | 229 | 1,205 | 7,417 | 41,055 | 28.7 |
| Traffic control signal | 36,515 | 58 | 748 | 7,006 | 28,703 | 22.1 |
| Stop sign | 19,356 | 75 | 522 | 3,692 | 15,067 | 30.8 |
| No passing zone | 3,875 | 47 | 139 | 705 | 2,984 | 48.0 |
| Yield sign | 1,710 | 2 | 38 | 232 | 1,438 | 23.4 |
| Other regulatory sign/marking | 1,381 | 7 | 36 | 196 | 1,142 | 31.1 |
| Flashing signal | 1,175 | 4 | 29 | 277 | 865 | 28.1 |
| Railroad crossing | 379 | 5 | 9 | 54 | 311 | 36.9 |
| Person directing traffic | 202 | 1 | 8 | 32 | 161 | 44.6 |
| None | 90,627 | 274 | 1,679 | 9,774 | 78,900 | 21.5 |
| Unknown | 406 | | 5 | 20 | 381 | 12.3 |

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

Note: *Fatal* and *incapacitating injury* collision rate is calculated per 1,000 total collisions by each manner of collision.

Low ● ● ● ● High

**Table 3.10. Indiana traffic collisions, by severity and environmental conditions, 2014**

| | Collisions, by severity | | | | | Fatal/incap injuries per 1,000 collisions |
|---|---|---|---|---|---|---|
| | Total | Fatal | Incapacitating | Non-incapacitating | Property damage | |
| **All collisions** | **205,532** | **702** | **4,418** | **29,405** | **171,007** | **24.9** |
| **By light conditions** | | | | | | |
| Daylight | 136,091 | 354 | 2,573 | 20,612 | 112,552 | 21.5 |
| Dark (not lighted) | 30,937 | 223 | 950 | 3,609 | 26,155 | 37.9 |
| Dark (lighted) | 27,325 | 86 | 674 | 3,855 | 22,710 | 27.8 |
| Dawn/dusk | 9,779 | 37 | 217 | 1,307 | 8,218 | 26.0 |
| Unknown | 1,400 | 2 | 4 | 22 | 1,372 | 4.3 |
| **By weather conditions** | | | | | | |
| Clear | 122,011 | 478 | 2,692 | 17,973 | 100,868 | 26.0 |
| Cloudy | 45,638 | 143 | 975 | 6,506 | 38,014 | 24.5 |
| Rain | 17,654 | 41 | 440 | 2,660 | 14,513 | 27.2 |
| Snow | 11,685 | 19 | 143 | 1,249 | 10,274 | 13.9 |
| Blowing sand/soil/snow | 5,063 | 7 | 61 | 568 | 4,427 | 13.4 |
| Sleet/hail/freezing rain | 1,787 | 7 | 68 | 243 | 1,469 | 42.0 |
| Fog/smoke/smog | 794 | 7 | 29 | 130 | 628 | 45.3 |
| Severe cross wind | 433 | 0 | 9 | 68 | 356 | 20.8 |
| Unknown | 467 | 0 | 1 | 8 | 458 | 2.1 |
| **By road surface conditions** | | | | | | |
| Dry | 139,941 | 562 | 3,196 | 21,028 | 115,155 | 26.9 |
| Wet | 29,264 | 78 | 735 | 4,395 | 24,056 | 27.8 |
| Snow/slush | 19,595 | 25 | 154 | 1,954 | 17,462 | 9.1 |
| Ice | 14,802 | 31 | 288 | 1,778 | 12,705 | 21.6 |
| Water (standing or moving) | 682 | 2 | 11 | 92 | 577 | 19.1 |
| Loose material on road | 676 | 4 | 27 | 136 | 509 | 45.9 |
| Muddy | 143 | 0 | 6 | 13 | 124 | 42.0 |
| Unknown | 429 | 0 | 1 | 9 | 419 | 2.3 |

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015
Note: *Fatal* and *incapacitating injury* collision rate is calculated per 1,000 total collisions in each environmental condition category.
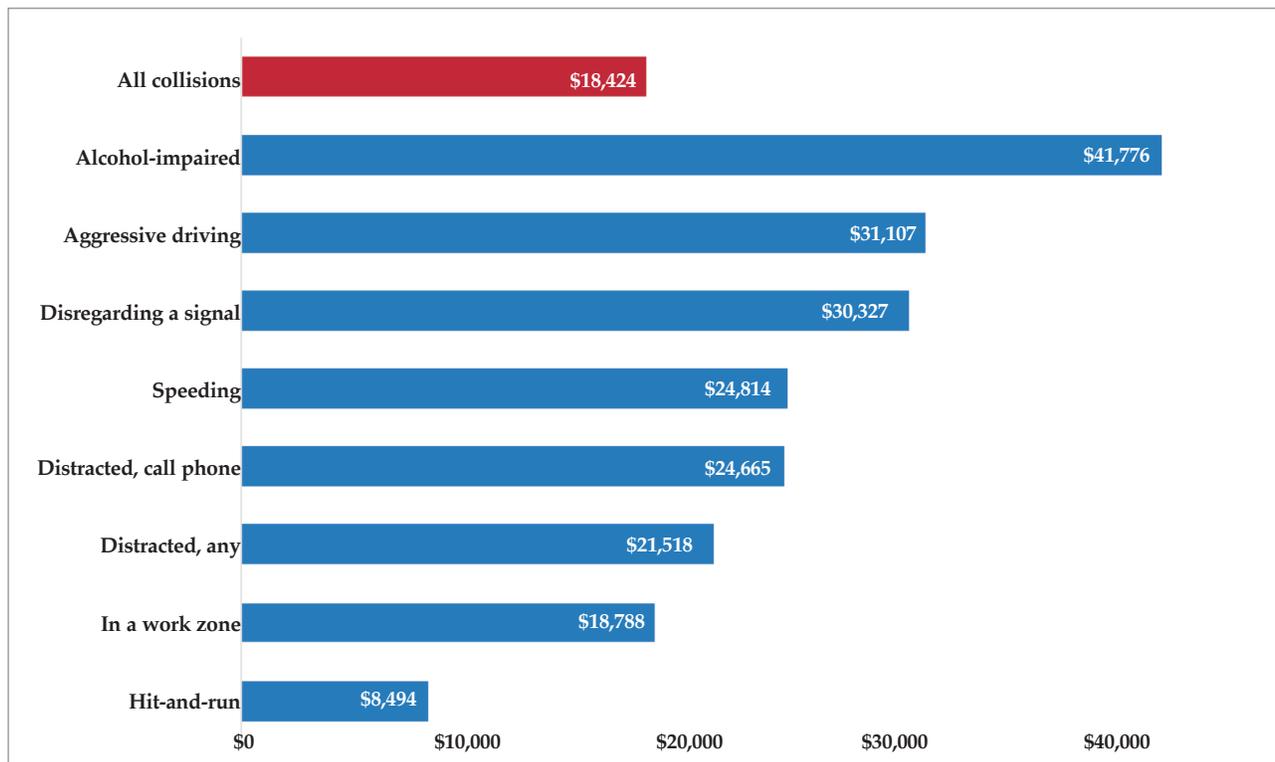
Low ● ● ● ● High

Table 3.11. Economic cost of traffic collisions in Indiana, by collision type, 2014

| Collision type | Count of collisions | Total cost (millions) |
|---|---|---|
| All collisions | 205,532 | $3,786.6 |
| Speeding | 24,810 | $615.6 |
| Hit-and-run | 24,585 | $208.8 |
| Distracted, any | 9,177 | $197.5 |
| Alcohol-impaired | 4,574 | $191.1 |
| Aggressive driving | 6,209 | $188.3 |
| Disregard a signal | 4,198 | $130.6 |
| In a work zone | 3,979 | $74.8 |
| Distracted, cell phone | 1,071 | $26.4 |

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015
Note: Counts of different collisions circumstances will not sum to the total number of collisions.

Figure 3.8. Average economic cost of Indiana traffic collisions, 2014



- All collisions: $18,424
- Alcohol-impaired: $41,776
- Aggressive driving: $31,107
- Disregarding a signal: $30,327
- Speeding: $24,814
- Distracted, call phone: $24,665
- Distracted, any: $21,518
- In a work zone: $18,788
- Hit-and-run: $8,494

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015
Note: See Appendix A for details on economic cost computations.
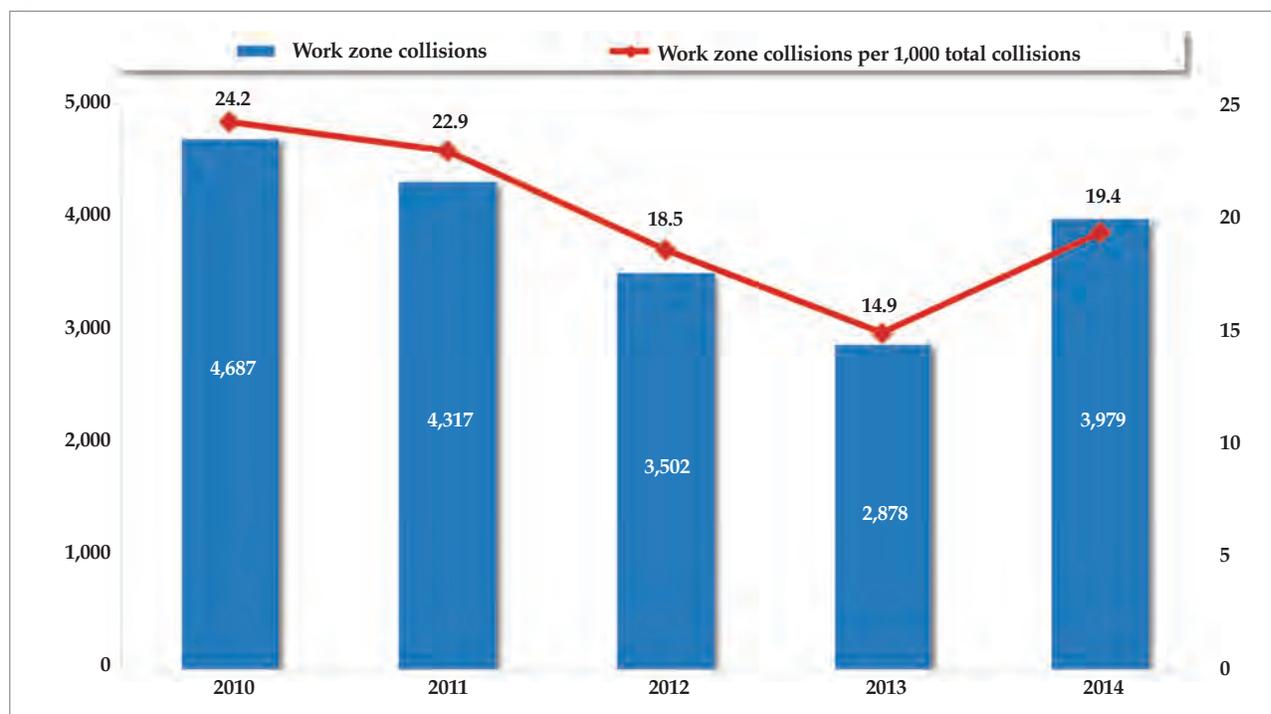
## Work Zone Collisions

After declining between 2010 and 2013, the number of collisions occurring in work zones rose from 2,878 in 2013 to 3,979 in 2014. The work zone collision rate was 19.4 per 1,000 collisions in 2014, up from 14.9 in 2013 (Figure 3.9). In 2014, the fatal and incapacitating injury rate for work zones (21.4) was lower than for non-work zone collisions (25.0). Work zone collisions occurring in the construction type of *crossover/lane shift* had the highest rate of fatal and incapacitating injury collisions, followed by *intermittent/moving work* (Table 3.12).

In 2014, work zone collision rates per 1,000 total collisions were highest in *urban* (21.1) and *suburban* (17.6) areas. Fatal and incapacitating injury collision rates were higher in *rural* (60.6) areas than other locales (Figure 3.10). Work zone colli-

sion rates were highest on *interstates* (82.9) and lowest on *county roads* (3.3). In 2014, rates of fatal and incapacitating injury collisions were highest on *state roads* (53.3) (Figure 3.11).

While the majority of work zone collisions (74 percent, calculated from table) occurred during *daylight*, fatal and incapacitating injury work zone collision rates per 1,000 collisions were highest when light conditions were *dark (not lighted)* (43.6). In 2014, the weather conditions with the highest rate of fatal and incapacitating injury in work zone collisions were *fog/smoke/smog* and *sleet/hail/freezing rain* (142.9) (Table 3.13). While *lane control* collisions represented the largest number of work zone collisions that occurred under traffic control type, the highest rate of fatal and incapacitating injury rates occurred under *person directing traffic* (58.0) (Table 3.14).

**Figure 3.9. Indiana work zone collisions, 2010-2014**



Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

Table 3.12. Indiana collisions in work zones, by severity and construction type, 2014

| | Collisions, by severity | | | | | Fatal/incap injuries per 1,000 collisions |
|---|---|---|---|---|---|---|
| | Total | Fatal | Incapacitating | Non-incapacitating | Property damage | |
| **All collisions** | **205,532** | **702** | **4,418** | **29,405** | **171,007** | **24.9** |
| All construction types | 3,979 | 10 | 75 | 547 | 3,347 | 21.4 |
| Not in construction zone | 201,553 | 692 | 4,343 | 28,858 | 167,660 | 25.0 |
| **Construction zone type** | | | | | | |
| Lane closure | 1,972 | 5 | 32 | 252 | 1,683 | ● 18.8 |
| Work on shoulder | 980 | 2 | 21 | 147 | 810 | ● 23.5 |
| Intermittent or moving work | 533 | 0 | 13 | 82 | 438 | ● 24.4 |
| Cross over/lane shift | 488 | 3 | 9 | 66 | 410 | ● 24.6 |
| Unknown | 6 | | | | 6 | ● 6.0 |

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES),
        as of March 23, 2015
Note: *Fatal* and *incapacitating injury* collision rate is calculated per 1,000 total collisions
        in each construction zone type.

●        ●        ●        ●
Low                              High

Figure 3.10.  Indiana work zone collisions, by locale, 2014
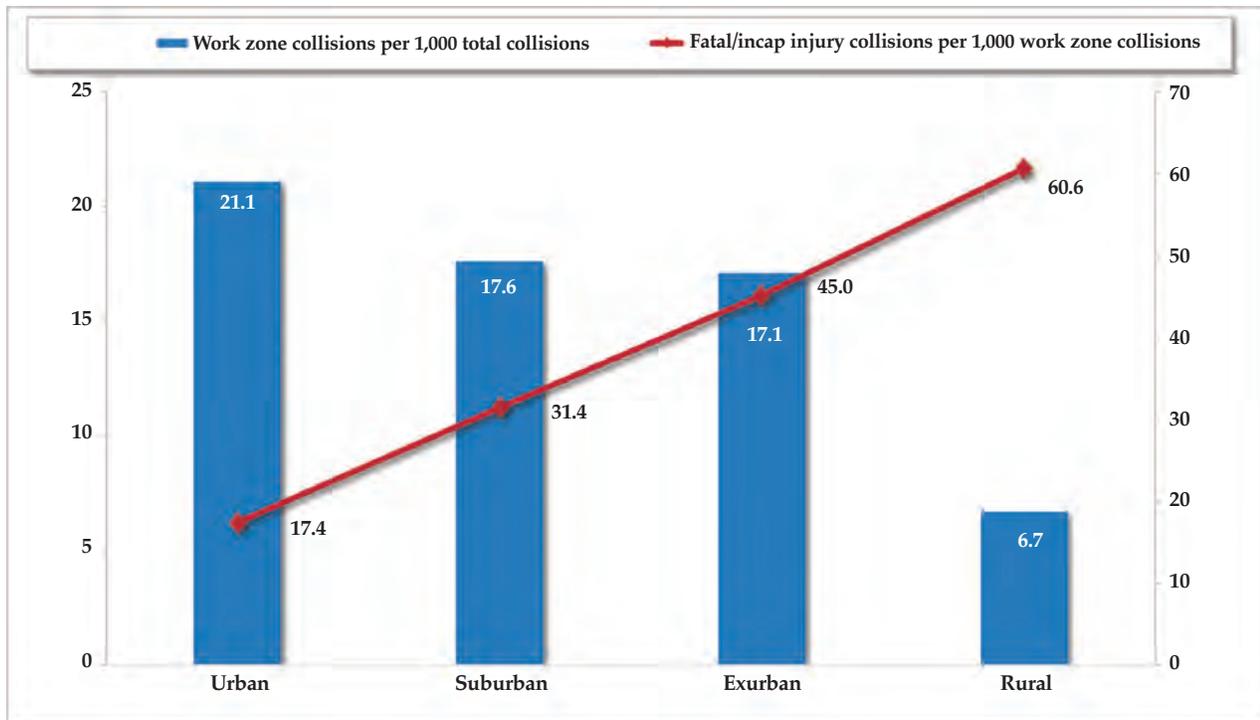


■ Work zone collisions per 1,000 total collisions        ✦ Fatal/incap injury collisions per 1,000 work zone collisions
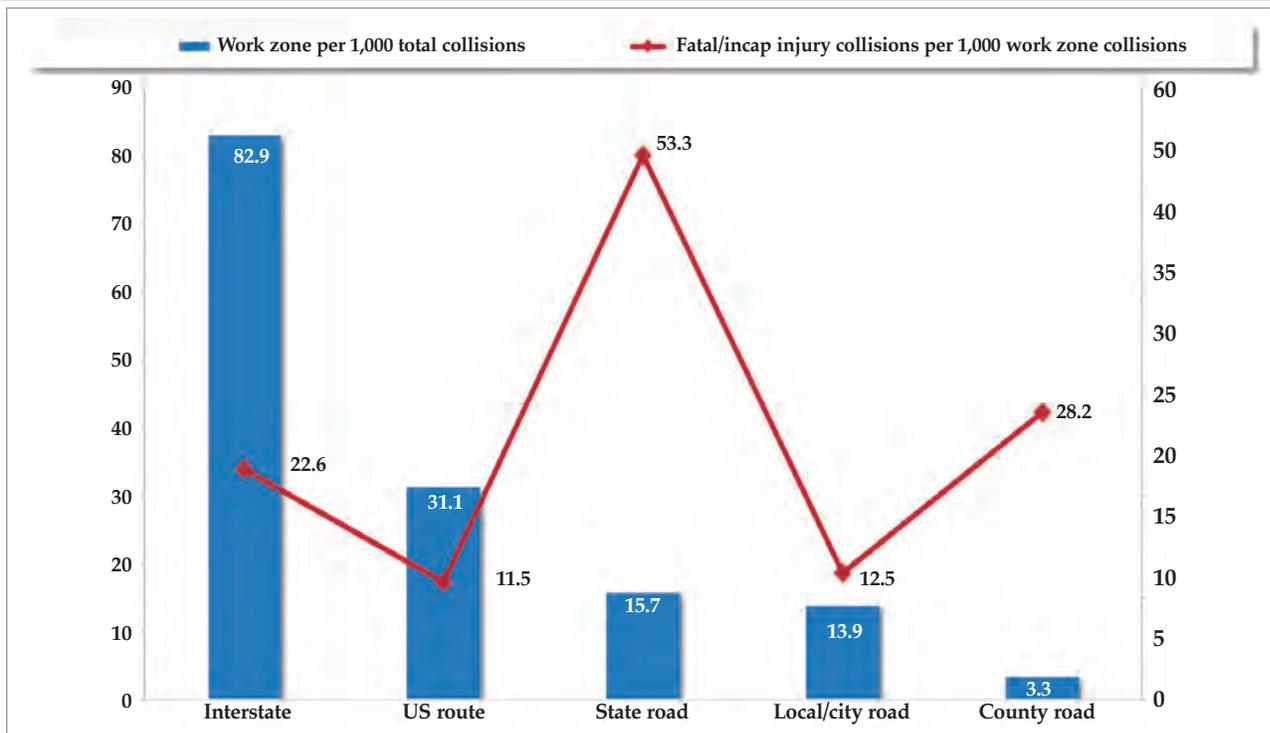
Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015
Notes:
1) Includes only collisions with valid locale reported.
2) See glossary for Census locale definitions.
3) The most recent ARIES upgrade added a clarification to reporting officers on the definition of incapacitating injuries criteria to include "transported from scene for treatment"; therefore, 2014 increases in incapacitating injuries should be interpreted with caution.

**Figure 3.11.   Indiana work zone collisions, by road class, 2014**



Legend: ▬ Work zone per 1,000 total collisions    ✦ Fatal/incap injury collisions per 1,000 work zone collisions

| Road class | Work zone per 1,000 total collisions | Fatal/incap injury collisions per 1,000 work zone collisions |
|---|---|---|
| Interstate | 82.9 | 22.6 |
| US route | 31.1 | 11.5 |
| State road | 15.7 | 53.3 |
| Local/city road | 13.9 | 12.5 |
| County road | 3.3 | 28.2 |

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) Includes only collisions with valid road class reported.
2) The most recent ARIES upgrade added a clarification to reporting officers on the definition of incapacitating injuries criteria to include "transported from scene for treatment"; therefore, 2014 increases in incapacitating injuries should be interpreted with caution.

**Table 3.13.  Indiana work zone collisions, by severity and environmental conditions, 2014**

| | Work zone collisions, by severity | | | | | Fatal/incap injuries per 1,000 collisions |
|---|---|---|---|---|---|---|
| | Total | Fatal | Incapacitating | Non-incapacitating | Property damage | |
| **All  work zone collisions** | **3,979** | **10** | **75** | **547** | **3,347** | **21.4** |
| **By light conditions** | | | | | | |
| Daylight | 2,926 | 2 | 47 | 401 | 2,476 | ⬤ 16.7 |
| Dark (not lighted) | 482 | 4 | 17 | 68 | 393 | 🔴 43.6 |
| Dark (lighted) | 403 | 3 | 8 | 63 | 329 | 🔴 27.3 |
| Dawn/dusk | 157 | 1 | 3 | 15 | 138 | 🟠 25.5 |
| Unknown | 11 | 0 | 0 | 0 | 11 | ⚫ 0.0 |
| **By weather conditions** | | | | | | |
| Clear | 2,682 | 7 | 44 | 383 | 2,248 | ⬤ 19.0 |
| Cloudy | 839 | 3 | 18 | 117 | 701 | 🟠 25.0 |
| Rain | 353 | 0 | 9 | 37 | 307 | 🟠 25.5 |
| Snow | 54 | 0 | 0 | 3 | 51 | ⚫ 0.0 |
| Fog/smoke/smog | 14 | 0 | 2 | 4 | 8 | 🔴 142.9 |
| Sleet/hail/freezing rain | 7 | 0 | 1 | 1 | 5 | 🔴 142.9 |
| Blowing sand/soil/snow | 23 | 0 | 1 | 1 | 21 | 🔴 43.5 |
| Severe cross wind | 5 | 0 | 0 | 1 | 4 | ⬤ 0.0 |
| Unknown | 2 | 0 | 0 | 0 | 2 | ⬤ 0.0 |
| **By road surface conditions** | | | | | | |
| Dry | 3,296 | 9 | 57 | 480 | 2,750 | 🟠 20.0 |
| Wet | 497 | 1 | 14 | 52 | 430 | 🟠 30.2 |
| Loose material on road | 29 | 0 | 1 | 5 | 23 | 🔴 34.5 |
| Snow/slush | 77 | 0 | 1 | 3 | 73 | ⬤ 13.0 |
| Ice | 54 | 0 | 1 | 5 | 48 | ⬤ 18.5 |
| Water (standing or moving) | 20 | 0 | 0 | 2 | 18 | ⚫ 0.0 |
| Muddy | 5 | 0 | 1 | 0 | 4 | 🔴 200.0 |
| Unknown | 1 | 0 | 0 | 0 | 1 | ⚫ 0.0 |

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

Note: *Fatal* and *incapacitating injury* collision rate is calculated per 1,000 total work zone collisions in each environmental condition category.

⚫ ⬤ 🟠 🔴  Low — High

**Table 3.14.  Indiana work zone collisions, by severity and traffic control type, 2014**

| | Work zone collisions, by severity | | | | | Fatal/incap injuries per 1,000 collisions |
|---|---|---|---|---|---|---|
| | Total | Fatal | Incapacitating | Non-incapacitating | Property damage | |
| **All  work zone collisions** | **3,979** | **10** | **75** | **547** | **3,347** | **21.4** |
| **Traffic control type** | | | | | | |
| Lane Control | 1,896 | 5 | 42 | 246 | 1,603 | ● 24.8 |
| Traffic Control Signal | 797 | 2 | 9 | 121 | 665 | ● 13.8 |
| Stop Sign | 153 | 0 | 4 | 33 | 116 | ● 26.1 |
| Other Regulatory Sign/Marking | 119 | 0 | 2 | 25 | 92 | ● 16.8 |
| Person directing traffic | 69 | 1 | 3 | 13 | 52 | ● 58.0 |
| Yield Sign | 54 | 0 | 0 | 3 | 51 | ● 0.0 |
| Flashing signal/overhead beacon | 37 | 0 | 1 | 6 | 30 | ● 27.0 |
| No Passing Zone | 37 | 0 | 2 | 2 | 33 | ● 54.1 |
| Railroad crossing | 7 | 0 | 0 | 2 | 5 | ● 0.0 |
| Other | 4 | 0 | 0 | 0 | 4 | ● 0.0 |
| Roundabout Intersection | 1 | 0 | 0 | 0 | 1 | ● 0.0 |
| None | 802 | 2 | 12 | 96 | 692 | ● 17.5 |
| Unknown | 3 | 0 | 0 | 0 | 3 | ● 0.0 |

**Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES),
as of March 23, 2015**
Note: *Fatal* and *incapacitating injury* collision rate is calculated per 1,000 total work zone collisions
in each traffic control type category.

● ● ● ●
Low                    High

# CHAPTER 4
# VEHICLES

# VEHICLES, 2014

The vehicle section summarizes data on motor vehicles involved in Indiana collisions in 2014. Special emphasis is given to *passenger vehicles (passenger cars, pickup trucks, sport utility vehicles,* and *vans), large trucks,* and *school buses.* Except as noted, motorcycles and mopeds are described in the Motorcycle section of this publication. Vehicle data are presented by collision severity, month, day of week, vehicle use, object collided with, collision primary factors, speeding and alcohol involvement, and locale.

In 2014, there were 352,587 motor vehicles involved in collisions in Indiana, a 7 percent increase from 2013 (Table 4.1). Passenger vehicles represented 94 percent of vehicles in all Indiana collisions, but only 74 percent of vehicles in fatal collisions (Table 4.2). The proportion of motorcycles and large trucks was disproportionately high in fatal collisions. Table 4.2 shows that motorcycles and large trucks represented 1 percent and 5 percent of vehicles in all collisions, and 11 percent and 14 percent in fatal collisions, respectively.

## Month and Day of Week

Between 2010 and 2014, the winter months of November, December, and January consistently had the highest number of passenger vehicles involved in total collisions, while the months with highest number of passenger vehicles in fatal collisions varied (Table 4.3). In 2014, passenger vehicle involvement in fatal collisions was highest during the month of August (101) and lowest during the month of February (48). Large truck involvement in collisions, generally, is higher during winter months and lower during spring months. In 3 out of the 5 years between 2010 and 2014, large truck involvement in all Indiana collisions was at its highest in January (Table 4.4). In both 2013 and 2014, large truck involvement in fatal collisions was highest during the month of January at 25 and 29, respectively.

When looking at passenger vehicle involvement in all collisions by days of the week, Friday was consistently the day with the highest number of passenger vehicles involved in total collisions between 2010 and 2014, and Sunday was consistently the lowest day of passenger vehicle involvement (Table 4.5). Passenger vehicle involvement in fatal collisions was less predictable. In 2014, passenger vehicle involvement in fatal collisions was highest on Thursdays (141) and lowest on Mondays (102). Large trucks, generally, follow a pattern of high involvement in both total collisions and fatal collisions during the work week and low involvement on the weekend. Sunday was consistently the day with the lowest number of large trucks involved in both total and fatal collisions between 2010 and 2014 (Table 4.6). With the exception of 2012, large truck

involvement in fatal collisions was highest on Thursdays during this same time period.

## Single- and Multi-vehicle Collisions

Passenger vehicles involved in fatal collisions were more likely to be in a single-vehicle crash than passenger vehicles involved in all collisions across all vehicle types. While 16 percent of SUVs involved in non-fatal collisions were involved in a single-vehicle crash, 34 percent of SUVs involved in fatal collisions were in a single-vehicle crash (Table 4.7). The opposite is true for large trucks. Nearly 90 percent of large trucks involved in fatal collisions were in a multi-vehicle crash.

## Use of Vehicle

Most (91 percent) vehicles involved in collisions were for personal use (Table 4.8). Overall, vehicles were involved in 3.2 fatal collisions per 1,000 collisions. Commercial use vehicles represented 13 percent of the vehicles involved in fatal collisions, but only 4 percent of vehicles involved in all collisions. Commercial use vehicles (which include large trucks) had the highest fatality rate (10.1) per 1,000 vehicles in all collision.

## Object Collided With (First)

**Note: Officers examining the full sequence of events occurring in collisions often determine that vehicles collide with more than one object in a single collision. This analysis is limited to the first object collided with as reported by the investigating officer.**

Of the 329,614 passenger vehicles involved in collisions, 265,013 (80 percent) collided with *another motor vehicle,* 15,525 (5 percent) *ran off the roadway,* and 14,302 (4 percent) collided with a *deer.* (Table 4.9). When looking at fatal collisions, 499 of 852 (59 percent) passenger vehicles collided with *another motor vehicle,* 129 (15 percent) *ran off the roadway,* and 62 (7 percent) collided with a *pedestrian.* Seventy-four percent of large trucks (12,024 of 16,330) involved in all crashes and 84 percent (132 of 157) of large trucks in fatal crashes collided with *another motor vehicle* (Table 4.10). Eighty-seven percent of school buses (779 of 898) involved in all crashes collided with *another motor vehicle,* and 2 of the 3 school buses involved in fatal crashes collided with a *pedestrian* (Table 4.11).

## Primary Factor

Eighty-four percent (154,347 of 183,342) of passenger cars in 2014 multi-vehicle crashes were involved in collisions with a primary factor (or cause) related to *driver: unsafe actions,* a rate that is consistent across all passenger vehicle types (calculated

from Table 4.12). *Pickup trucks* (67 percent), *SUVs* (60 percent), and *vans* (59 percent) were more likely to be attributable in multi-vehicle collisions with a primary contributing factor of *unsafe backing* than *passenger cars* (42 percent) (Table 4.12). Overall, pickup trucks (57 percent) had much higher rates of attributability in multi-vehicle collisions with a primary factor related to *vehicle* factors than all other passenger vehicle types.

The primary factors of *unsafe lane movement, following too closely,* and *unsafe backing* were the driver actions that represented the largest portions of large trucks in all crashes (Table 4.13). Nine of the 11 large trucks in multi-vehicle collisions with the *environmental* primary factor of *severe crosswinds* were reported as attributable to the cause of the crash. Primary factors related to *driver: unsafe actions* accounted for 76 percent (678 of 895) of school buses in 2014 crashes (Table 4.14). Eighty-five percent (81 of 95) of school buses were attributable in multi-vehicle collisions with a primary factor of *improper turning.*

### Speeding and Alcohol Involvement

Figures 4.1 and 4.2 illustrate the percent of vehicles speeding in 2014 crashes by vehicle type. More than 10 percent of the 3,478 motorcycles and 8 percent of the 42,824 pickup trucks in all collisions were speeding (Figure 4.1). Motorcycles (35 percent), large trucks (33 percent), and SUVs (32 percent) accounted for the highest proportions of speeding vehicles in crashes where one or more fatalities occurred in the vehicle that was speeding (Figure 4.2).

Figures 4.3 and 4.4 show the percent of vehicles with an alcohol-impaired driver in 2014 crashes by vehicle type. About 4 percent of motorcycles and 2 percent of pickup trucks in all collisions had a driver that was legally impaired (Figure 4.3). Pickup trucks (19 percent) and SUVs (16 percent) accounted for the highest proportions of vehicles in crashes with both an impaired driver and one or more fatalities occurring in the vehicle (Figure 4.4).

### Geographic Distribution and Census Locale

Passenger vehicle involvement in collisions varies by collision severity and geographic locale. In 2014, about 41 percent of passenger vehicles in fatal crashes were located in *urban* areas, compared to 78 percent of passenger vehicles in non-fatal crashes (Figure 4.5). Fatal collisions are more likely to occur in non-urban areas across all passenger vehicle types. The *rural* rate of SUV involvement in fatal collisions per 1,000 involved in all collisions was 8.6 in 2014, compared to 1.1 per 1,000 in *urban* areas (Figure 4.6).

The geographic distribution of large trucks involved in collisions is shown in Figure 4.7. In 2014, 34 percent of large trucks in fatal crashes were located in *suburban* areas, compared to 19 percent of large trucks in non-fatal crashes (Figure 4.7). When combined, *suburban, exurban,* and *rural* areas account for 72 percent of large trucks in fatal crashes. Large trucks have higher rates of involvement in fatal collisions than passenger vehicles across all locales. *Exurban* areas had the highest rate of large truck involvement in fatal collisions (20.3 per 1,000), compared to 4.7 per 1,000 in *urban* areas.

### Table 4.1. Vehicles involved in Indiana collisions, by vehicle type and collision severity, 2010-2014

| Collision severity/vehicle type | Count of vehicles | | | | | Annual rate of change | |
|---|---|---|---|---|---|---|---|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2013-14 | 2010-14 |
| **All collisions** | **330,518** | **322,539** | **324,916** | **330,041** | **352,587** | **6.8%** | **1.6%** |
| Passenger vehicle | 311,130 | 302,339 | 305,224 | 310,588 | 329,614 | 6.1% | 1.5% |
| *Passenger car* | *196,281* | *192,657* | *199,277* | *206,488* | *221,460* | *7.3%* | *3.1%* |
| *Pickup truck* | *46,090* | *44,016* | *41,343* | *40,898* | *42,824* | *4.7%* | *-1.8%* |
| *Sport utility vehicle* | *46,320* | *44,702* | *45,007* | *44,764* | *48,459* | *8.3%* | *1.1%* |
| *Van* | *22,439* | *20,964* | *19,597* | *18,438* | *16,871* | *-8.5%* | *-6.9%* |
| Motorcycle | 3,502 | 3,629 | 4,212 | 3,595 | 3,478 | -3.3% | -0.2% |
| Large truck | 13,333 | 13,947 | 13,105 | 13,315 | 16,330 | 22.6% | 5.2% |
| School bus | 820 | 923 | 768 | 720 | 898 | 24.7% | 2.3% |
| Other | 1,733 | 1,701 | 1,607 | 1,823 | 2,267 | 24.4% | 6.9% |
| **Fatal** | **1,114** | **1,057** | **1,124** | **1,133** | **1,149** | **1.4%** | **0.8%** |
| Passenger vehicle | 873 | 781 | 844 | 883 | 852 | -3.5% | -0.6% |
| *Passenger car* | *485* | *451* | *511* | *532* | *522* | *-1.9%* | *1.9%* |
| *Pickup truck* | *184* | *143* | *159* | *169* | *162* | *-4.1%* | *-3.1%* |
| *Sport utility vehicle* | *125* | *125* | *118* | *125* | *122* | *-2.4%* | *-0.6%* |
| *Van* | *79* | *62* | *56* | *57* | *46* | *-19.3%* | *-12.6%* |
| Motorcycle | 113 | 121 | 149 | 116 | 125 | 7.8% | 2.6% |
| Large truck | 115 | 143 | 126 | 123 | 157 | 27.6% | 8.1% |
| School bus | 3 | 5 | 1 | 0 | 3 | na | 0.0% |
| Other | 10 | 7 | 4 | 11 | 12 | 9.1% | 4.7% |
| **Non-fatal injury** | **60,381** | **57,990** | **60,160** | **57,786** | **59,868** | **3.6%** | **-0.2%** |
| Passenger vehicle | 55,774 | 53,266 | 55,090 | 53,184 | 54,923 | 3.3% | -0.4% |
| *Passenger car* | *35,353* | *34,199* | *35,936* | *35,248* | *36,926* | *4.8%* | *1.1%* |
| *Pickup truck* | *7,619* | *7,275* | *7,139* | *6,560* | *6,633* | *1.1%* | *-3.4%* |
| *Sport utility vehicle* | *8,512* | *7,998* | *8,390* | *8,032* | *8,420* | *4.8%* | *-0.3%* |
| *Van* | *4,290* | *3,794* | *3,625* | *3,344* | *2,944* | *-12.0%* | *-9.0%* |
| Motorcycle | 2,463 | 2,473 | 2,981 | 2,490 | 2,405 | -3.4% | -0.6% |
| Large truck | 1,811 | 1,932 | 1,741 | 1,765 | 2,136 | 21.0% | 4.2% |
| School bus | 87 | 97 | 83 | 77 | 91 | 18.2% | 1.1% |
| Other | 246 | 222 | 265 | 270 | 313 | 15.9% | 6.2% |
| **Property damage** | **269,023** | **263,492** | **263,632** | **271,122** | **291,570** | **7.5%** | **2.0%** |
| Passenger vehicle | 254,483 | 248,292 | 249,290 | 256,521 | 273,839 | 6.8% | 1.8% |
| *Passenger car* | *160,443* | *158,007* | *162,830* | *170,708* | *184,012* | *7.8%* | *3.5%* |
| *Pickup truck* | *38,287* | *36,598* | *34,045* | *34,169* | *36,029* | *5.4%* | *-1.5%* |
| *Sport utility vehicle* | *37,683* | *36,579* | *36,499* | *36,607* | *39,917* | *9.0%* | *1.5%* |
| *Van* | *18,070* | *17,108* | *15,916* | *15,037* | *13,881* | *-7.7%* | *-6.4%* |
| Motorcycle | 926 | 1,035 | 1,082 | 989 | 948 | -4.1% | 0.6% |
| Large truck | 11,407 | 11,872 | 11,238 | 11,427 | 14,037 | 22.8% | 5.3% |
| School bus | 730 | 821 | 684 | 643 | 804 | 25.0% | 2.4% |
| Other | 1,477 | 1,472 | 1,338 | 1,542 | 1,942 | 25.9% | 7.1 |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) Vehicle types reported as non-motorists (animal drawn vehicle, bicycle, and pedestrian), unknown, or NULL values are excluded.
2) Other vehicles include those reported as *bus/seats 15+ persons with driver, bus/seats 9-15 persons with driver, combination vehicle, farm vehicle,* and *motor home/recreational vehicle.*
3) Motorcycles includes vehicle types reported as *motorcycle* and *moped.*
4) Large trucks are defined as vehicles reported as *single 2 axle, 6 tires; single 3 or more axles; truck/trailer — not semi; tractor — cab only, no trailer; tractor/one semi-trailer; tractor/double trailer;* and, *tractor/triple trailer.*

**Table 4.2. Percent of vehicles involved in Indiana collisions, by vehicle type and collision severity, 2010-2014**

| Collision severity/vehicle type | Count of vehicles | | | | | Annual rate of change | |
|---|---|---|---|---|---|---|---|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2013 -14 | 2010-14 |
| **All collisions** | **330,518** | **322,539** | **324,916** | **330,041** | **352,587** | **6.8%** | **1.6%** |
| Passenger vehicle | 94.1% | 93.7% | 93.9% | 94.1% | 93.5% | -0.7% | -0.2% |
| *Passenger car* | *59.4%* | *59.7%* | *61.3%* | *62.6%* | *62.8%* | *0.4%* | *1.4%* |
| *Pickup truck* | *13.9%* | *13.6%* | *12.7%* | *12.4%* | *12.1%* | *-2.0%* | *-3.4%* |
| *Sport utility vehicle* | *14.0%* | *13.9%* | *13.9%* | *13.6%* | *13.7%* | *1.3%* | *-0.5%* |
| *Van* | *6.8%* | *6.5%* | *6.0%* | *5.6%* | *4.8%* | *-14.3%* | *-8.4%* |
| Motorcycle | 1.1% | 1.1% | 1.3% | 1.1% | 1.0% | -9.4% | -1.8% |
| Large truck | 4.0% | 4.3% | 4.0% | 4.0% | 4.6% | 14.8% | 3.5% |
| School bus | 0.2% | 0.3% | 0.2% | 0.2% | 0.3% | 16.7% | 0.7% |
| Other | 0.5% | 0.5% | 0.5% | 0.6% | 0.6% | 16.4% | 5.2% |
| **Fatal** | **1,114** | **1,057** | **1,124** | **1,133** | **1,149** | **1.4%** | **0.8%** |
| Passenger vehicle | 78.4% | 73.9% | 75.1% | 77.9% | 74.2% | -4.9% | -1.4% |
| *Passenger car* | *43.5%* | *42.7%* | *45.5%* | *47.0%* | *45.4%* | *-3.2%* | *1.1%* |
| *Pickup truck* | *16.5%* | *13.5%* | *14.1%* | *14.9%* | *14.1%* | *-5.5%* | *-3.9%* |
| *Sport utility vehicle* | *11.2%* | *11.8%* | *10.5%* | *11.0%* | *10.6%* | *-3.8%* | *-1.4%* |
| *Van* | *7.1%* | *5.9%* | *5.0%* | *5.0%* | *4.0%* | *-20.4%* | *-13.3%* |
| Motorcycle | 10.1% | 11.4% | 13.3% | 10.2% | 10.9% | 6.3% | 1.8% |
| Large truck | 10.3% | 13.5% | 11.2% | 10.9% | 13.7% | 25.9% | 7.3% |
| School bus | 0.3% | 0.5% | 0.1% | 0.0% | 0.3% | na | -0.8% |
| Other | 0.9% | 0.7% | 0.4% | 1.0% | 1.0% | 7.6% | 3.9% |
| **Non-fatal injury** | **60,381** | **57,990** | **60,160** | **57,786** | **59,868** | **3.6%** | **-0.2%** |
| Passenger vehicle | 92.4% | 91.9% | 91.6% | 92.0% | 91.7% | -0.3% | -0.2% |
| *Passenger car* | *58.5%* | *59.0%* | *59.7%* | *61.0%* | *61.7%* | *1.1%* | *1.3%* |
| *Pickup truck* | *12.6%* | *12.5%* | *11.9%* | *11.4%* | *11.1%* | *-2.4%* | *-3.2%* |
| *Sport utility vehicle* | *14.1%* | *13.8%* | *13.9%* | *13.9%* | *14.1%* | *1.2%* | *-0.1%* |
| *Van* | *7.1%* | *6.5%* | *6.0%* | *5.8%* | *4.9%* | *-15.0%* | *-8.8%* |
| Motorcycle | 4.1% | 4.3% | 5.0% | 4.3% | 4.0% | -6.8% | -0.4% |
| Large truck | 3.0% | 3.3% | 2.9% | 3.1% | 3.6% | 16.8% | 4.4% |
| School bus | 0.1% | 0.2% | 0.1% | 0.1% | 0.2% | 14.1% | 1.3% |
| Other | 0.4% | 0.4% | 0.4% | 0.5% | 0.5% | 11.9% | 6.4% |
| **Property damage** | **269,023** | **263,492** | **263,632** | **271,122** | **291,570** | **7.5%** | **2.0%** |
| Passenger vehicle | 94.6% | 94.2% | 94.6% | 94.6% | 93.9% | -0.7% | -0.2% |
| *Passenger car* | *59.6%* | *60.0%* | *61.8%* | *63.0%* | *63.1%* | *0.2%* | *1.4%* |
| *Pickup truck* | *14.2%* | *13.9%* | *12.9%* | *12.6%* | *12.4%* | *-2.0%* | *-3.5%* |
| *Sport utility vehicle* | *14.0%* | *13.9%* | *13.8%* | *13.5%* | *13.7%* | *1.4%* | *-0.6%* |
| *Van* | *6.7%* | *6.5%* | *6.0%* | *5.5%* | *4.8%* | *-14.2%* | *-8.2%* |
| Motorcycle | 0.3% | 0.4% | 0.4% | 0.4% | 0.3% | -10.9% | -1.4% |
| Large truck | 4.2% | 4.5% | 4.3% | 4.2% | 4.8% | 14.2% | 3.2% |
| School bus | 0.3% | 0.3% | 0.3% | 0.2% | 0.3% | 16.3% | 0.4% |
| Other | 0.5% | 0.6% | 0.5% | 0.6% | 0.7% | 17.1% | 4.9% |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) Vehicle types reported as *non-motorists* (*animal drawn vehicle*, *bicycle*, and *pedestrian*), unknown, or NULL values are excluded.
2) Other vehicles include those reported as *bus/seats 15+ persons with driver*, *bus/seats 9-15 persons with driver*, *combination vehicle*, *farm vehicle*, and *motor home/recreational vehicle*.
3) Motorcycles includes vehicle types reported as *motorcycle* and *moped*.
4) Large trucks are defined as vehicles reported as *single 2 axle, 6 tires*; *single 3 or more axles*; *truck/trailer — not semi*; *tractor — cab only, no trailer*; *tractor/one semi-trailer*; *tractor/double trailer*; and, *tractor/triple trailer*.

**Table 4.3.  Passenger vehicles in total and fatal traffic collisions in Indiana, by month, 2010-2014**

| | Passenger vehicles in total collisions | | | | | Passenger vehicles in fatal collisions | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2010 | 2011 | 2012 | 2013 | 2014 |
| Jan | 26,270 | 28,733 | 27,080 | 24,673 | 35,990 | 52 | 62 | 65 | 79 | 77 |
| Feb | 26,932 | 25,489 | 22,812 | 22,557 | 30,797 | 66 | 65 | 60 | 59 | 48 |
| Mar | 22,054 | 20,771 | 23,937 | 25,297 | 24,560 | 61 | 44 | 62 | 71 | 58 |
| Apr | 23,428 | 22,620 | 22,761 | 22,895 | 23,274 | 80 | 52 | 52 | 71 | 57 |
| May | 25,418 | 24,467 | 26,172 | 26,645 | 26,031 | 59 | 65 | 66 | 54 | 60 |
| Jun | 25,407 | 23,790 | 24,580 | 24,747 | 24,706 | 83 | 59 | 85 | 52 | 75 |
| Jul | 24,822 | 23,067 | 23,546 | 24,402 | 24,176 | 86 | 77 | 87 | 68 | 68 |
| Aug | 24,732 | 24,850 | 25,849 | 25,510 | 25,751 | 86 | 74 | 84 | 81 | 101 |
| Sep | 24,722 | 24,988 | 24,402 | 25,951 | 25,982 | 58 | 72 | 74 | 90 | 71 |
| Oct | 27,408 | 27,921 | 28,567 | 28,391 | 30,360 | 80 | 83 | 67 | 83 | 83 |
| Nov | 27,246 | 28,747 | 25,949 | 28,790 | 29,877 | 89 | 53 | 61 | 87 | 67 |
| Dec | 32,691 | 26,896 | 29,569 | 30,730 | 28,110 | 73 | 75 | 81 | 88 | 87 |
| **Total** | **311,130** | **302,339** | **305,224** | **310,588** | **329,614** | **873** | **781** | **844** | **883** | **852** |
| *High* | *Dec* | *Nov* | *Dec* | *Dec* | *Jan* | *Nov* | *Oct* | *Jul* | *Sep* | *Aug* |
| *Low* | *Mar* | *Mar* | *Apr* | *Feb* | *Apr* | *Jan* | *Mar* | *Apr* | *Jun* | *Feb* |

Low █████████████ High

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) Conditional formatting color-scales are illustrated to show months from low to high for the entire 5-year period.
2) Passenger vehicles are defined as *passenger cars, sport utility vehicles, pickup trucks,* and *vans.*

**Table 4.4.  Large trucks in total and fatal traffic collisions in Indiana, by month, 2010-2014**

| | Large trucks in total collisions | | | | | Large trucks in fatal collisions | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2010 | 2011 | 2012 | 2013 | 2014 |
| Jan | 1,264 | 1,508 | 1,275 | 1,171 | 2,386 | 10 | 18 | 10 | 25 | 29 |
| Feb | 1,345 | 1,379 | 954 | 924 | 1,800 | 4 | 8 | 10 | 8 | 7 |
| Mar | 900 | 990 | 1,057 | 1,186 | 1,254 | 11 | 3 | 6 | 13 | 12 |
| Apr | 932 | 924 | 935 | 978 | 1,114 | 7 | 8 | 8 | 12 | 5 |
| May | 970 | 1,112 | 1,069 | 1,089 | 1,109 | 9 | 8 | 12 | 3 | 15 |
| Jun | 1,074 | 1,218 | 1,122 | 994 | 1,261 | 7 | 15 | 13 | 11 | 13 |
| Jul | 1,120 | 1,030 | 1,090 | 1,088 | 1,174 | 7 | 14 | 11 | 8 | 18 |
| Aug | 1,112 | 1,156 | 1,092 | 1,124 | 1,218 | 12 | 23 | 13 | 4 | 12 |
| Sep | 1,053 | 1,114 | 1,059 | 1,080 | 1,208 | 12 | 9 | 18 | 10 | 10 |
| Oct | 1,058 | 1,226 | 1,201 | 1,280 | 1,412 | 15 | 13 | 10 | 7 | 12 |
| Nov | 1,039 | 1,212 | 1,070 | 1,145 | 1,281 | 12 | 13 | 6 | 11 | 8 |
| Dec | 1,466 | 1,078 | 1,181 | 1,256 | 1,113 | 9 | 11 | 9 | 11 | 16 |
| **Total** | **13,333** | **13,947** | **13,105** | **13,315** | **16,330** | **115** | **143** | **126** | **123** | **157** |
| *High* | *Dec* | *Jan* | *Jan* | *Oct* | *Jan* | *Oct* | *Aug* | *Sep* | *Jan* | *Jan* |
| *Low* | *Mar* | *Apr* | *Apr* | *Feb* | *May* | *Feb* | *Mar* | *Mar/Nov* | *May* | *Apr* |

Low █████████████ High

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) Conditional formatting color-scales are illustrated to show months from low to high for the entire 5-year period.
2) Large trucks are defined as vehicles reported as *single 2 axle, 6 tires; single 3 or more axles; truck/trailer — not semi; tractor — cab only, no trailer; tractor/one semi-trailer; tractor/double trailer;* and, *tractor/triple trailer.*

## Table 4.5. Passenger vehicles in total and fatal traffic collisions in Indiana, by day of week, 2010-2014

| | Passenger vehicles in total collisions | | | | | Passenger vehicles in fatal collisions | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2010 | 2011 | 2012 | 2013 | 2014 |
| Sun | 30,530 | 28,883 | 29,293 | 30,141 | 31,292 | 110 | 112 | 101 | 132 | 106 |
| Mon | 44,328 | 43,820 | 43,648 | 43,471 | 45,207 | 113 | 110 | 110 | 115 | 102 |
| Tue | 46,008 | 45,521 | 43,942 | 45,810 | 49,983 | 116 | 128 | 105 | 141 | 110 |
| Wed | 46,889 | 43,392 | 44,624 | 46,007 | 49,018 | 110 | 87 | 114 | 96 | 121 |
| Thur | 47,320 | 47,309 | 46,571 | 47,683 | 50,829 | 114 | 114 | 128 | 124 | 141 |
| Fri | 55,316 | 53,281 | 56,260 | 56,278 | 59,531 | 164 | 123 | 133 | 110 | 133 |
| Sat | 40,739 | 40,133 | 40,886 | 41,198 | 43,754 | 146 | 107 | 153 | 165 | 139 |
| Total | 311,130 | 302,339 | 305,224 | 310,588 | 329,614 | 873 | 781 | 844 | 883 | 852 |
| High | Fri | Fri | Fri | Fri | Fri | Fri | Tue | Sat | Sat | Thur |
| Low | Sun | Sun | Sun | Sun | Sun | Sun | Wed | Sun | Wed | Mon |
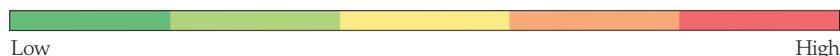
Low ▬▬▬▬▬ High

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) Conditional formatting color-scales are illustrated to show months from low to high for the entire 5-year period.
2) Passenger vehicles are defined as *passenger cars, sport utility vehicles, pickup trucks,* and *vans.*

## Table 4.6. Large trucks in total and fatal traffic collisions in Indiana, by day of week, 2010-2014

| | Large trucks in total collisions | | | | | Large trucks in fatal collisions | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2010 | 2011 | 2012 | 2013 | 2014 |
| Sun | 581 | 554 | 597 | 681 | 892 | 6 | 3 | 12 | 4 | 9 |
| Mon | 2,277 | 2,265 | 2,154 | 2,287 | 2,617 | 22 | 23 | 12 | 24 | 25 |
| Tue | 2,453 | 2,672 | 2,332 | 2,438 | 2,996 | 17 | 17 | 20 | 22 | 20 |
| Wed | 2,420 | 2,625 | 2,386 | 2,293 | 2,987 | 11 | 28 | 24 | 14 | 24 |
| Thur | 2,473 | 2,621 | 2,354 | 2,379 | 2,929 | 25 | 39 | 21 | 32 | 41 |
| Fri | 2,253 | 2,245 | 2,402 | 2,258 | 2,651 | 20 | 25 | 25 | 18 | 26 |
| Sat | 876 | 965 | 880 | 979 | 1,258 | 14 | 8 | 12 | 9 | 12 |
| Total | 13,333 | 13,947 | 13,105 | 13,315 | 16,330 | 115 | 143 | 126 | 123 | 157 |
| High | Thur | Tue | Fri | Tue | Tue | Thur | Thur | Fri | Thur | Thur |
| Low | Sun | Sun | Sun | Sun | Sun | Sun | Sun | Sun/Mon/Sat | Sun | Sun |

Low ▬▬▬▬▬ High

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) Conditional formatting color-scales are illustrated to show months from low to high for the entire 5-year period.
2) Large trucks are defined as vehicles reported as single 2 axle, 6 tires; single 3 or more axles; truck/trailer — not semi; tractor — cab only, no trailer; tractor/one semi-trailer; tractor/double trailer; and, tractor/triple trailer.

**Table 4.7. Vehicles involved in fatal and non-fatal collisions, by vehicle type and number of vehicles involved, 2014**

| Collision severity/ vehicles involved | Passenger car | | Pickup truck | | SUV | | Van | | Large truck | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Count | % | Count | % | Count | % | Count | % | Count | % |
| **Fatal** | **522** | **100.0%** | **162** | **100.0%** | **122** | **100.0%** | **46** | **100.0%** | **157** | **100.0%** |
| Single-vehicle | 158 | 30.3% | 56 | 34.6% | 41 | 33.6% | 15 | 32.6% | 16 | 10.2% |
| Multiple-vehicle | 364 | 69.7% | 106 | 65.4% | 81 | 66.4% | 31 | 67.4% | 141 | 89.8% |
| **Non-fatal** | **220,938** | **100.0%** | **42,662** | **100.0%** | **48,337** | **100.0%** | **16,825** | **100.0%** | **16,173** | **100.0%** |
| Single-vehicle | 36,977 | 16.7% | 8,563 | 20.1% | 7,812 | 16.2% | 2,316 | 13.8% | 3,434 | 21.2% |
| Multiple-vehicle | 183,961 | 83.3% | 34,099 | 79.9% | 40,525 | 83.8% | 14,509 | 86.2% | 12,739 | 78.8% |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Note: *Non-fatal* collisions includes *non-fatal injury* and *property damage only* collisions.

**Table 4.8. Vehicles involved in Indiana collisions, by vehicle use and collision severity, 2014**

| Vehicle use | All collisions | | Fatal collisions | | Incapacitating collisions | | Non-incapacitating collisions | | Property damage only collisions | | Vehicles in fatal collisions per 1,000 in all collisions |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Count | % of total | Count | % of total | Count | % of total | Count | % of total | Count | % of total | |
| Personal | 328,847 | 91.2% | 990 | 84.5% | 6,801 | 93.1% | 50,011 | 94.3% | 271,045 | 90.6% | 3.0 |
| Commercial | 14,884 | 4.1% | 151 | 12.9% | 338 | 4.6% | 1,708 | 3.2% | 12,687 | 4.2% | 10.1 |
| Police | 2,522 | 0.7% | 1 | 0.1% | 35 | 0.5% | 301 | 0.6% | 2,185 | 0.7% | 0.4 |
| Rental, not leased | 1,492 | 0.4% | 5 | 0.4% | 25 | 0.3% | 171 | 0.3% | 1,291 | 0.4% | 3.4 |
| Other | 2,266 | 0.6% | 8 | 0.7% | 32 | 0.4% | 212 | 0.4% | 2,014 | 0.7% | 3.5 |
| School | 1,110 | 0.3% | 4 | 0.3% | 12 | 0.2% | 96 | 0.2% | 998 | 0.3% | 3.6 |
| Highway department | 628 | 0.2% | 2 | 0.2% | 12 | 0.2% | 70 | 0.1% | 544 | 0.2% | 3.2 |
| Ambulance | 422 | 0.1% | 0 | 0.0% | 2 | 0.0% | 48 | 0.1% | 372 | 0.1% | 0.0 |
| Public utilities | 309 | 0.1% | 0 | 0.0% | 3 | 0.0% | 15 | 0.0% | 291 | 0.1% | 0.0 |
| Fire | 262 | 0.1% | 0 | 0.0% | 5 | 0.1% | 10 | 0.0% | 247 | 0.1% | 0.0 |
| Bus, not school | 360 | 0.1% | 2 | 0.2% | 4 | 0.1% | 47 | 0.1% | 307 | 0.1% | 5.6 |
| Military | 61 | 0.0% | 0 | 0.0% | 1 | 0.0% | 5 | 0.0% | 55 | 0.0% | 0.0 |
| Unknown | 7,553 | 2.1% | 8 | 0.7% | 36 | 0.5% | 345 | 0.7% | 7,164 | 2.4% | 1.1 |
| **Total vehicles** | **360,716** | **100.0%** | **1,171** | **100.0%** | **7,306** | **100.0%** | **53,039** | **100.0%** | **299,200** | **100.0%** | **3.2** |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) *Unknown vehicle use* includes vehicles reported as *unknown*, blank, or invalid codes.
2) *Commercial* use includes buses, taxis, carriers, etc.
3) *Other* use includes government, postal, etc.
4) *Public utilities* use includes gas, electric, etc.
5) *Buses* includes charter, intercity, shuttles and transit.
6) *School* includes *school buses, maintenance vehicles, etc.*
7) Excludes *bicycles, pedestrians* and *animal-drawn vehicle (non-motor vehicle)* as vehicle types.

**Table 4.9. Passenger vehicles involved in Indiana collisions, by (first) object collided with and collision severity, 2014**

| (First) Object collided with | All collisions | Fatal collisions | Incapacitating collisions | Non-incapacitating collisions | Property damage only collisions |
|---|---|---|---|---|---|
| **Passenger vehicles** | **329,614** | **852** | **6,281** | **48,642** | **273,839** |
| Another motor vehicle | 265,013 | 499 | 4,445 | 39,572 | 220,497 |
| Ran off roadway | 15,525 | 129 | 733 | 2,950 | 11,713 |
| Deer | 14,302 | 2 | 33 | 233 | 14,034 |
| Other | 5,052 | 18 | 94 | 505 | 4,435 |
| Ditch | 2,424 | 17 | 86 | 525 | 1,796 |
| Parked motor vehicle | 2,217 | 3 | 9 | 94 | 2,111 |
| Utility pole | 2,128 | 5 | 55 | 388 | 1,680 |
| Tree | 1,703 | 13 | 78 | 377 | 1,235 |
| Curb | 1,567 | 13 | 46 | 247 | 1,261 |
| Other post/pole or support | 1,565 | 1 | 22 | 157 | 1,385 |
| Guardrail face | 1,556 | 5 | 38 | 202 | 1,311 |
| Pedestrian | 1,440 | 62 | 256 | 943 | 179 |
| Concrete traffic barrier | 1,336 | 3 | 37 | 218 | 1,078 |
| Animal other than deer | 1,035 | 0 | 8 | 70 | 957 |
| Wall/building/tunnel | 1,029 | 1 | 15 | 133 | 880 |
| Crossing center line/median | 916 | 25 | 56 | 214 | 621 |
| Bicycle | 905 | 13 | 81 | 593 | 218 |
| Fence | 857 | 1 | 16 | 74 | 766 |
| Embankment | 841 | 6 | 24 | 195 | 616 |
| Mailbox | 816 | 2 | 14 | 91 | 709 |
| Highway traffic sign post | 646 | 2 | 7 | 52 | 585 |
| Light/luminaire support | 544 | 2 | 11 | 87 | 444 |
| Animal drawn vehicle | 456 | 0 | 11 | 52 | 393 |
| Guardrail end | 443 | 1 | 20 | 79 | 343 |
| Thrown or falling object | 398 | 2 | 7 | 25 | 364 |
| Bridge rail | 372 | 2 | 8 | 68 | 294 |
| Cable barrier | 348 | 0 | 0 | 23 | 325 |
| Overturn/rollover | 331 | 2 | 21 | 114 | 194 |
| Equipment/mechanical failure | 256 | 0 | 3 | 22 | 231 |
| Fell from vehicle (non-collision) | 255 | 4 | 7 | 31 | 213 |
| Culvert | 244 | 3 | 11 | 53 | 177 |
| Other traffic barrier | 178 | 1 | 2 | 22 | 153 |
| Cargo/equipment shift or loss | 164 | 0 | 1 | 8 | 155 |
| Impact attenuator/crash cushion | 134 | 1 | 6 | 33 | 94 |
| Bridge pier or abutment | 120 | 2 | 3 | 24 | 91 |
| Railway vehicle/train/engine | 89 | 4 | 7 | 21 | 57 |
| Fire/explosion | 80 | 0 | 0 | 2 | 78 |
| Off roadway | 76 | 2 | 2 | 11 | 61 |
| Jackknife | 73 | 0 | 0 | 10 | 63 |
| Work zone maintenance equipment | 53 | 1 | 0 | 8 | 44 |
| Separation of units | 50 | 1 | 1 | 3 | 45 |
| Overhead sign post | 40 | 0 | 0 | 4 | 36 |
| Immersion | 39 | 0 | 1 | 3 | 35 |
| Bridge overhead structure | 35 | 1 | 0 | 5 | 29 |
| Downhill runaway | 23 | 0 | 0 | 4 | 19 |
| Bridge parapet end | 18 | 0 | 0 | 2 | 16 |
| Median barrier | 14 | 0 | 0 | 3 | 11 |
| Unknown | 1,908 | 3 | 6 | 92 | 1,807 |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Note: Passenger vehicles are defined as *passenger cars, sport utility vehicles, pickup trucks,* and *vans.*

**Table 4.10. Large trucks involved in Indiana collisions, by (first) object collided with and collision severity, 2014**

| (First) Object collided with | Large trucks involved in: | | | | |
|---|---|---|---|---|---|
| | All collisions | Fatal collisions | Incapacitating collisions | Non-incapacitating collisions | Property damage only collisions |
| **Large trucks involved in:** | **16,330** | **157** | **352** | **1,784** | **14,037** |
| Another motor vehicle | 12,024 | 132 | 273 | 1,429 | 10,190 |
| Ran off roadway | 893 | 7 | 31 | 117 | 738 |
| Other | 681 | 2 | 4 | 33 | 642 |
| Deer | 298 | 0 | 1 | 3 | 294 |
| Parked motor vehicle | 231 | 2 | 0 | 3 | 226 |
| Utility pole | 184 | 0 | 0 | 6 | 178 |
| Other post/pole or support | 156 | 0 | 0 | 4 | 152 |
| Wall/building/tunnel | 146 | 0 | 0 | 2 | 144 |
| Jackknife | 137 | 0 | 1 | 16 | 120 |
| Ditch | 129 | 1 | 3 | 28 | 97 |
| Bridge overhead structure | 114 | 0 | 1 | 8 | 105 |
| Guardrail face | 111 | 2 | 2 | 11 | 96 |
| Overturn/rollover | 88 | 0 | 6 | 30 | 52 |
| Cargo/equipment shift or loss | 79 | 0 | 0 | 5 | 74 |
| Light/luminaire support | 79 | 0 | 0 | 0 | 79 |
| Equipment/mechanical failure | 74 | 0 | 4 | 3 | 67 |
| Concrete traffic barrier | 72 | 1 | 1 | 10 | 60 |
| Fell from vehicle (non-collision) | 68 | 0 | 0 | 2 | 66 |
| Highway traffic sign post | 65 | 0 | 1 | 3 | 61 |
| Tree | 50 | 0 | 0 | 5 | 45 |
| Curb | 49 | 0 | 0 | 5 | 44 |
| Guardrail end | 49 | 0 | 1 | 2 | 46 |
| Fence | 47 | 0 | 0 | 1 | 46 |
| Crossing center line/median | 43 | 0 | 3 | 8 | 32 |
| Thrown or falling object | 41 | 0 | 2 | 2 | 37 |
| Cable barrier | 37 | 0 | 0 | 3 | 34 |
| Fire/explosion | 35 | 0 | 0 | 1 | 34 |
| Embankment | 33 | 1 | 1 | 7 | 24 |
| Pedestrian | 33 | 7 | 10 | 15 | 1 |
| Animal other than deer | 26 | 0 | 0 | 3 | 23 |
| Animal drawn vehicle | 24 | 1 | 1 | 5 | 17 |
| Overhead sign post | 23 | 0 | 0 | 0 | 23 |
| Bridge rail | 20 | 0 | 1 | 1 | 18 |
| Other traffic barrier | 17 | 0 | 0 | 0 | 17 |
| Impact attenuator/crash cushion | 15 | 0 | 0 | 4 | 11 |
| Culvert | 12 | 0 | 2 | 1 | 9 |
| Mailbox | 12 | 0 | 0 | 0 | 12 |
| Work zone maintenance equipment | 10 | 0 | 0 | 1 | 9 |
| Bridge pier or abutment | 8 | 1 | 0 | 1 | 6 |
| Railway vehicle/train/engine | 8 | 0 | 0 | 0 | 8 |
| Separation of units | 8 | 0 | 0 | 0 | 8 |
| Bicycle | 7 | 0 | 1 | 4 | 2 |
| Off roadway | 5 | 0 | 0 | 0 | 5 |
| Downhill runaway | 4 | 0 | 0 | 2 | 2 |
| Immersion | 2 | 0 | 0 | 0 | 2 |
| Bridge parapet end | 1 | 0 | 0 | 0 | 1 |
| Unknown | 82 | 0 | 2 | 0 | 80 |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Note: Large trucks are defined as vehicles reported as *single 2 axle, 6 tires; single 3 or more axles; truck/trailer — not semi; tractor — cab only, no trailer; tractor/one semi-trailer; tractor/double trailer;* and, *tractor/triple trailer.*

**Table 4.11. School buses involved in Indiana collisions, by (first) object collided with and collision severity, 2014**

| (First) Object collided with | School buses involved in: | | | | |
|---|---|---|---|---|---|
| | All collisions | Fatal collisions | Incapacitating collisions | Non-incapacitating collisions | Property damage only collisions |
| **School buses involved in:** | **898** | **3** | **9** | **82** | **804** |
| Another motor vehicle | 779 | 0 | 8 | 71 | 700 |
| Parked motor vehicle | 16 | 0 | 0 | 0 | 16 |
| Pedestrian | 10 | 2 | 0 | 7 | 1 |
| Wall/building/tunnel | 9 | 0 | 0 | 0 | 9 |
| Ran off roadway | 8 | 0 | 0 | 0 | 8 |
| Utility pole | 8 | 0 | 0 | 0 | 8 |
| Deer | 7 | 0 | 0 | 0 | 7 |
| Other post/pole or support | 5 | 0 | 0 | 1 | 4 |
| Tree | 4 | 1 | 0 | 0 | 3 |
| Guardrail face | 3 | 0 | 0 | 0 | 3 |
| Light/luminaire support | 3 | 0 | 0 | 0 | 3 |
| Mailbox | 3 | 0 | 0 | 0 | 3 |
| Animal drawn vehicle | 2 | 0 | 0 | 0 | 2 |
| Animal other than deer | 2 | 0 | 0 | 0 | 2 |
| Bridge overhead structure | 2 | 0 | 0 | 1 | 1 |
| Embankment | 2 | 0 | 0 | 0 | 2 |
| Fell from vehicle (non-collision) | 2 | 0 | 0 | 1 | 1 |
| Highway traffic sign post | 2 | 0 | 0 | 0 | 2 |
| Bicycle | 1 | 0 | 1 | 0 | 0 |
| Bridge, pier, or abutment | 1 | 0 | 0 | 0 | 1 |
| Curb | 1 | 0 | 0 | 0 | 1 |
| Guardrail end | 1 | 0 | 0 | 0 | 1 |
| Off roadway | 1 | 0 | 0 | 1 | 0 |
| Other traffic barrier | 1 | 0 | 0 | 0 | 1 |
| Thrown or falling object | 1 | 0 | 0 | 0 | 1 |
| Other | 20 | 0 | 0 | 0 | 20 |
| Unknown | 4 | 0 | 0 | 0 | 4 |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

**Table 4.12.  Passenger vehicles involved in Indiana multi-vehicle collisions, by primary factor, vehicle type, and attributability, 2014**

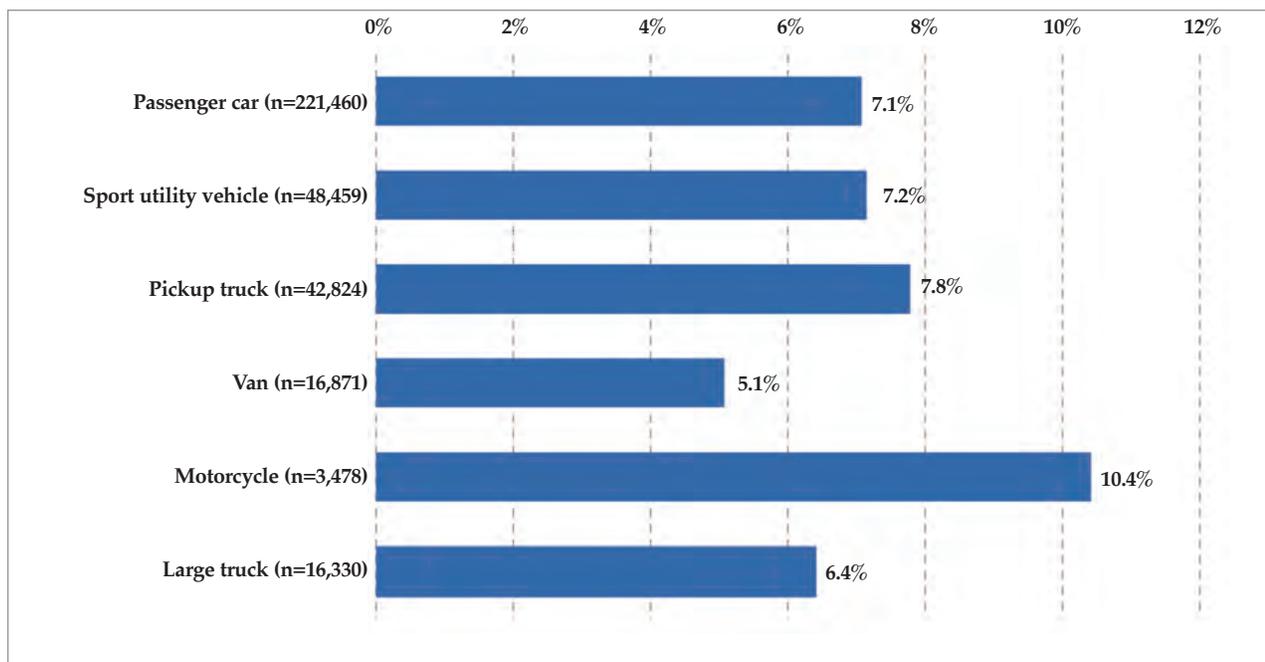| Primary collision factor | Multi-vehicle collisions | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | Passenger cars | | | Pickup trucks | | | SUVs | | | Vans | | |
| | Total | Attributable to vehicle | | Total | Attributable to vehicle | | Total | Attributable to vehicle | | Total | Attributable to vehicle | |
| | | Count | % | | Count | % | | Count | % | | Count | % |
| **Passenger vehicles** | 183,342 | 88,189 | 48.1% | 34,093 | 18,486 | 54.2% | 40,436 | 19,661 | 48.6% | 14,472 | 7,115 | 49.2% |
| **Driver: Unsafe actions** | 154,347 | 73,799 | 47.8% | 27,666 | 14,896 | 53.8% | 33,984 | 16,512 | 48.6% | 12,178 | 5,966 | 49.0% |
| Disregard signal/reg sign | 9,016 | 4,573 | 50.7% | 1,536 | 760 | 49.5% | 2,032 | 963 | 47.4% | 820 | 388 | 47.3% |
| Failure to yield right of way | 40,454 | 20,428 | 50.5% | 6,577 | 3,388 | 51.5% | 8,055 | 4,183 | 51.9% | 2,926 | 1,474 | 50.4% |
| Following too closely | 45,093 | 21,540 | 47.8% | 7,027 | 3,579 | 50.9% | 10,547 | 4,547 | 43.1% | 3,397 | 1,492 | 43.9% |
| Improper lane usage | 5,821 | 2,594 | 44.6% | 998 | 455 | 45.6% | 1,225 | 566 | 46.2% | 516 | 272 | 52.7% |
| Improper passing | 1,973 | 926 | 46.9% | 482 | 246 | 51.0% | 488 | 247 | 50.6% | 214 | 104 | 48.6% |
| Improper turning | 6,195 | 2,635 | 42.5% | 1,247 | 747 | 59.9% | 1,316 | 590 | 44.8% | 526 | 268 | 51.0% |
| Left of center | 3,699 | 1,876 | 50.7% | 1,151 | 586 | 50.9% | 859 | 378 | 44.0% | 294 | 126 | 42.9% |
| Speed too fast for weather conditions | 8,229 | 4,398 | 53.4% | 1,725 | 807 | 46.8% | 2,124 | 997 | 46.9% | 662 | 271 | 40.9% |
| Unsafe backing | 22,030 | 9,275 | 42.1% | 5,130 | 3,451 | 67.3% | 5,100 | 3,037 | 59.5% | 2,038 | 1,194 | 58.6% |
| Unsafe lane movement | 8,117 | 3844 | 47.4% | 1,109 | 558 | 50.3% | 1,405 | 657 | 46.8% | 545 | 288 | 52.8% |
| Unsafe speed | 3,447 | 1581 | 45.9% | 650 | 304 | 46.8% | 778 | 322 | 41.4% | 224 | 79 | 35.3% |
| Wrong way on one way | 273 | 129 | 47.3% | 34 | 15 | 44.1% | 55 | 25 | 45.5% | 16 | 10 | 62.5% |
| **Driver: Loss of control** | 20,303 | 9,793 | 48.2% | 4,101 | 2,197 | 53.6% | 4,539 | 2,196 | 48.4% | 1,599 | 804 | 50.3% |
| Cell phone usage | 343 | 174 | 50.7% | 61 | 24 | 39.3% | 69 | 26 | 37.7% | 18 | 9 | 50.0% |
| Driver distracted | 5,678 | 2,686 | 47.3% | 1,052 | 530 | 50.4% | 1,274 | 563 | 44.2% | 428 | 186 | 43.5% |
| Other - Driver | 11,449 | 5,689 | 49.7% | 2,385 | 1,367 | 57.3% | 2,587 | 1,345 | 52.0% | 909 | 498 | 54.8% |
| Other telematics in use | 45 | 22 | 48.9% | 7 | 5 | 71.4% | 13 | 6 | 46.2% | 3 | 0 | 0.0% |
| Overcorrecting/oversteering | 1,400 | 621 | 44.4% | 276 | 137 | 49.6% | 330 | 147 | 44.5% | 127 | 68 | 53.5% |
| Ran off road right | 1,388 | 601 | 43.3% | 320 | 134 | 41.9% | 266 | 109 | 41.0% | 114 | 43 | 37.7% |
| **Driver: Cognitive/ physical impairment** | 1,191 | 583 | 49.0% | 211 | 105 | 49.8% | 248 | 100 | 40.3% | 94 | 39 | 41.5% |
| Alcoholic beverages | 17 | 9 | 52.9% | 3 | 2 | 66.7% | 0 | 0 | na | 2 | 1 | 50.0% |
| Driver asleep or fatigued | 786 | 403 | 51.3% | 141 | 67 | 47.5% | 151 | 66 | 43.7% | 59 | 22 | 37.3% |
| Driver illness | 383 | 169 | 44.1% | 67 | 36 | 53.7% | 97 | 34 | 35.1% | 33 | 16 | 48.5% |
| Illegal drugs | 5 | 2 | 40.0% | 0 | 0 | na | 0 | 0 | na | 0 | 0 | na |
| **Driver: Miscellaneous factors** | 84 | 36 | 42.9% | 17 | 9 | 52.9% | 14 | 6 | 42.9% | 8 | 6 | 75.0% |
| **Vehicle factors** | 3,008 | 1,143 | 38.0% | 955 | 546 | 57.2% | 671 | 242 | 36.1% | 259 | 99 | 38.2% |
| Accelerator failure or defective | 104 | 40 | 38.5% | 27 | 15 | 55.6% | 31 | 11 | 35.5% | 6 | 2 | 33.3% |
| Brake failure or defective | 1,164 | 510 | 43.8% | 348 | 197 | 56.6% | 289 | 114 | 39.4% | 102 | 41 | 40.2% |
| Engine failure or defective | 75 | 33 | 44.0% | 17 | 8 | 47.1% | 11 | 3 | 27.3% | 7 | 3 | 42.9% |
| Headlight defective or not on | 68 | 32 | 47.1% | 9 | 3 | 33.3% | 8 | 3 | 37.5% | 4 | 2 | 50.0% |
| Insecure/leaky load | 250 | 35 | 14.0% | 179 | 137 | 76.5% | 47 | 7 | 14.9% | 31 | 3 | 9.7% |
| Other - Vehicle | 894 | 316 | 35.3% | 230 | 110 | 47.8% | 191 | 75 | 39.3% | 73 | 32 | 43.8% |
| Other lights defective | 21 | 8 | 38.1% | 10 | 5 | 50.0% | 7 | 2 | 28.6% | 1 | 0 | 0.0% |
| Oversize/overweight load | 24 | 3 | 12.5% | 16 | 6 | 37.5% | 3 | 0 | 0.0% | 4 | 1 | 25.0% |
| Steering failure | 118 | 55 | 46.6% | 14 | 6 | 42.9% | 23 | 6 | 26.1% | 6 | 4 | 66.7% |
| Tire failure or defective | 274 | 109 | 39.8% | 86 | 45 | 52.3% | 52 | 18 | 34.6% | 23 | 11 | 47.8% |
| Tow hitch failure | 16 | 2 | 12.5% | 19 | 14 | 73.7% | 9 | 3 | 33.3% | 2 | 0 | 0.0% |
| **Environmental factors** | 4,409 | 2,835 | 64.3% | 1,143 | 733 | 64.1% | 980 | 605 | 61.7% | 334 | 201 | 60.2% |
| Animal on roadway | 590 | 432 | 73.2% | 113 | 68 | 60.2% | 98 | 79 | 80.6% | 43 | 27 | 62.8% |
| Glare | 11 | 6 | 54.5% | 0 | 0 | na | 1 | 0 | 0.0% | 0 | 0 | na |
| Holes/ruts in surface | 25 | 14 | 56.0% | 6 | 3 | 50.0% | 7 | 3 | 42.9% | 4 | 1 | 25.0% |
| Lane marking obscured | 15 | 10 | 66.7% | 8 | 6 | 75.0% | 2 | 2 | 100.0% | 0 | 0 | na |
| Obstruction not marked | 38 | 17 | 44.7% | 12 | 5 | 41.7% | 8 | 4 | 50.0% | 3 | 1 | 33.3% |
| Other - Environment | 526 | 308 | 58.6% | 139 | 93 | 66.9% | 113 | 66 | 58.4% | 33 | 19 | 57.6% |
| Roadway surface condition | 2,441 | 1,624 | 66.5% | 700 | 461 | 65.9% | 583 | 351 | 60.2% | 196 | 119 | 60.7% |
| Severe crosswinds | 20 | 13 | 65.0% | 1 | 0 | 0.0% | 6 | 6 | 100.0% | 2 | 1 | 50.0% |
| Shoulder defective | 0 | 0 | na | 0 | 0 | na | 0 | 0 | na | 0 | 0 | na |
| Traffic control problem | 54 | 42 | 77.8% | 6 | 5 | 83.3% | 10 | 8 | 80.0% | 3 | 2 | 66.7% |
| View obstructed | 689 | 369 | 53.6% | 158 | 92 | 58.2% | 152 | 86 | 56.6% | 50 | 31 | na |

Source:  Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015
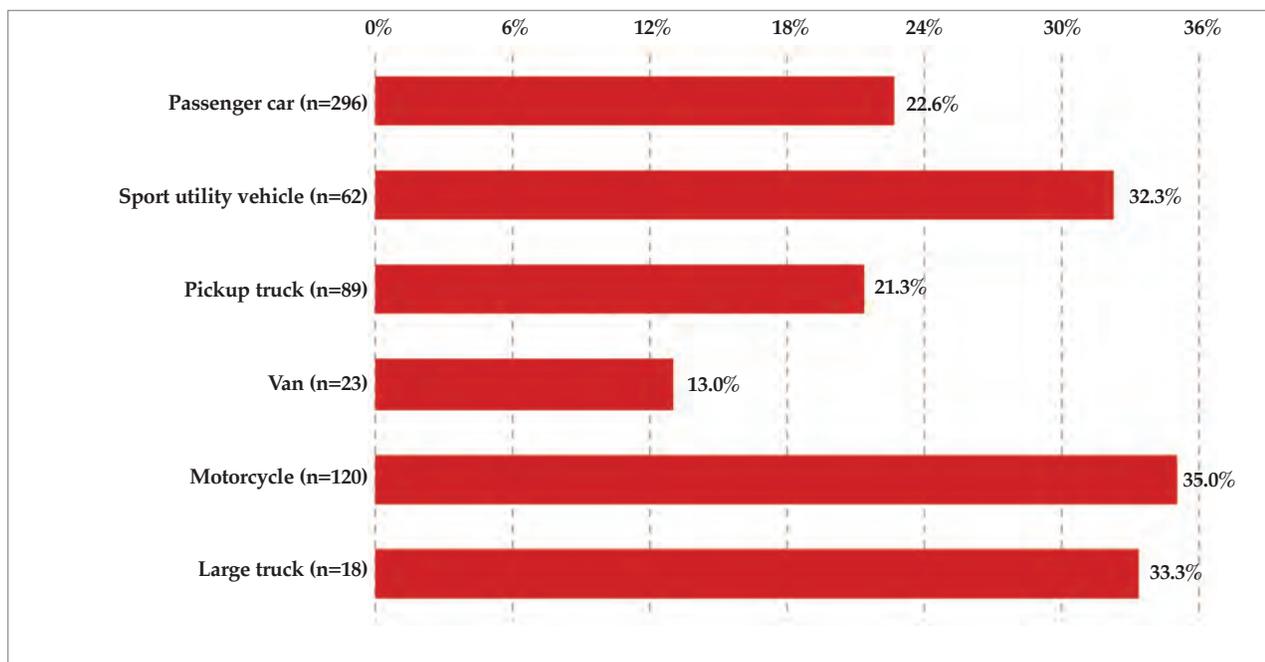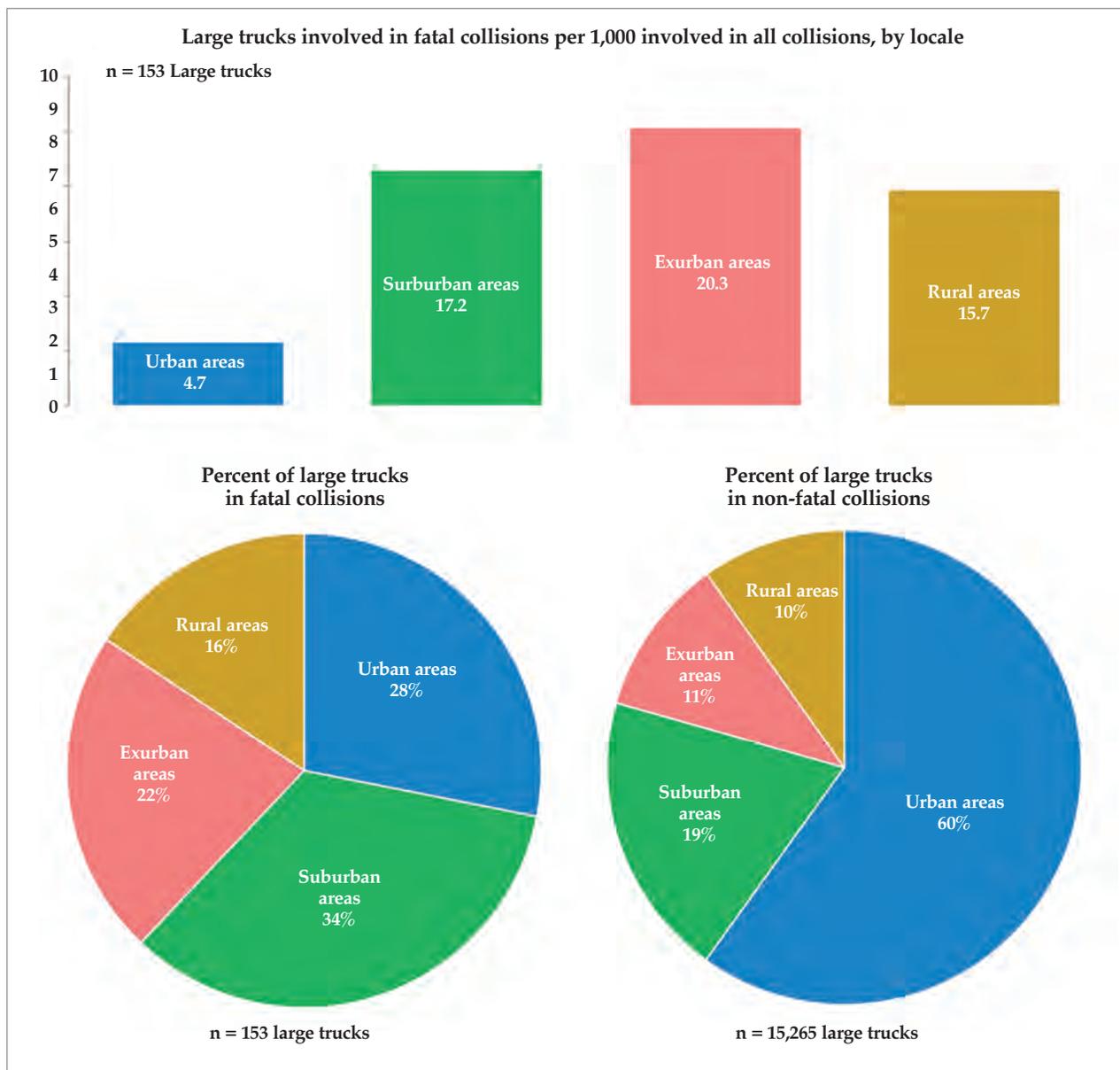
Low      High

Notes:
1) Primary factor numbers represent counts of vehicles, involved in collisions in each primary factor category. Note that in multi-vehicle collisions, more than one vehicle may be *attributable*, meaning that the reported vehicle contributing circumstance matches the primary factor.
2) See glossary for definition of *primary factors* and *attributability*.
3) Excludes primary factors reported as *unknown*.

**Table 4.13. Large trucks involved in Indiana collisions, by primary factor, type of collision, and collision severity, 2014**

| Primary collision factor | All collisions | Single-vehicle collisions | Large trucks involved in: Multi-vehicle collisions | | | | | |
| | | | Total | Attributable to vehicle | | Fatal/incap collisions | Attributable to vehicle | |
| | | | | Count | % | | Count | % |
|---|---|---|---|---|---|---|---|---|
| **Large trucks** | 16,312 | 3,448 | 12,864 | 6,668 | 51.8% | 430 | 119 | 27.7% |
| **Driver: Unsafe actions** | 11,537 | 1,234 | 10,303 | 5,197 | 50.4% | 363 | 102 | 28.1% |
| Unsafe lane movement | 1,771 | 79 | 1,692 | 911 | 53.8% | 45 | 17 | 37.8% |
| Following too closely | 1,763 | 29 | 1,734 | 881 | 50.8% | 47 | 16 | 34.0% |
| Unsafe backing | 1,754 | 185 | 1,569 | 1,045 | 66.6% | 4 | 2 | 50.0% |
| Improper turning | 1,425 | 336 | 1,089 | 723 | 66.4% | 3 | 2 | 66.7% |
| Failure to yield right of way | 1,392 | 11 | 1,381 | 570 | 41.3% | 62 | 23 | 37.1% |
| Speed too fast for weather conditions | 1,346 | 374 | 972 | 243 | 25.0% | 49 | 8 | 16.3% |
| Improper lane usage | 699 | 56 | 643 | 368 | 57.2% | 9 | 2 | 22.2% |
| Disregard signal/reg sign | 379 | 40 | 339 | 146 | 43.1% | 40 | 16 | 40.0% |
| Left of center | 362 | 9 | 353 | 134 | 38.0% | 53 | 8 | 15.1% |
| Unsafe speed | 335 | 110 | 225 | 72 | 32.0% | 38 | 8 | 21.1% |
| Improper passing | 290 | 5 | 285 | 98 | 34.4% | 6 | 0 | 0.0% |
| Wrong way on one way | 21 | 0 | 21 | 6 | 28.6% | 7 | 0 | 0.0% |
| **Driver: Loss of control** | 2,627 | 1,167 | 1,460 | 835 | 57.2% | 39 | 9 | 23.1% |
| Other - Driver | 1,239 | 314 | 925 | 625 | 67.6% | 13 | 3 | 23.1% |
| Ran off road right | 790 | 689 | 101 | 37 | 36.6% | 10 | 1 | 10.0% |
| Overcorrecting/oversteering | 302 | 99 | 203 | 87 | 42.9% | 2 | 0 | 0.0% |
| Driver distracted | 278 | 64 | 214 | 85 | 39.7% | 11 | 4 | 36.4% |
| Cell phone usage | 17 | 0 | 17 | 1 | 5.9% | 3 | 1 | 33.3% |
| Other telematics in use | 1 | 1 | 0 | 0 | na | 0 | 0 | na |
| **Driver: Cognitive/physical impairment** | 158 | 36 | 122 | 12 | 9.8% | 11 | 3 | 27.3% |
| Driver asleep or fatigued | 120 | 24 | 96 | 7 | 7.3% | 5 | 1 | 20.0% |
| Driver illness | 35 | 12 | 23 | 5 | 21.7% | 6 | 2 | 33.3% |
| Alcoholic beverages | 3 | 0 | 3 | 0 | 0.0% | 0 | 0 | na |
| Illegal drugs | 0 | 0 | 0 | 0 | na | 0 | 0 | na |
| **Driver: Miscellaneous factors** | 25 | 20 | 5 | 4 | 80.0% | 2 | 1 | 50.0% |
| **Vehicle factors** | 853 | 354 | 499 | 326 | 65.3% | 5 | 0 | 0.0% |
| Other - Vehicle | 231 | 94 | 137 | 84 | 61.3% | 1 | 0 | 0.0% |
| Tire failure or defective | 165 | 50 | 115 | 74 | 64.3% | 2 | 0 | 0.0% |
| Insecure/leaky load | 160 | 38 | 122 | 100 | 82.0% | 0 | 0 | na |
| Oversize/overweight load | 119 | 100 | 19 | 16 | 84.2% | 0 | 0 | na |
| Brake failure or defective | 114 | 37 | 77 | 41 | 53.2% | 1 | 0 | 0.0% |
| Steering failure | 21 | 10 | 11 | 3 | 27.3% | 0 | 0 | na |
| Engine failure or defective | 20 | 14 | 6 | 3 | 50.0% | 0 | 0 | na |
| Tow hitch failure | 14 | 7 | 7 | 4 | 57.1% | 0 | 0 | na |
| Accelerator failure or defective | 6 | 3 | 3 | 1 | 33.3% | 0 | 0 | na |
| Headlight defective or not on | 2 | 0 | 2 | 0 | 0.0% | 1 | 0 | 0.0% |
| Other lights defective | 1 | 1 | 0 | 0 | na | 0 | 0 | na |
| **Environmental factors** | 1,112 | 637 | 475 | 294 | 61.9% | 10 | 4 | 40.0% |
| Animal on roadway | 498 | 394 | 104 | 49 | 47.1% | 6 | 3 | 50.0% |
| Roadway surface condition | 281 | 81 | 200 | 125 | 62.5% | 3 | 0 | 0.0% |
| Other - Environment | 159 | 82 | 77 | 57 | 74.0% | 0 | 0 | na |
| View obstructed | 92 | 23 | 69 | 44 | 63.8% | 1 | 1 | 100.0% |
| Severe crosswinds | 44 | 33 | 11 | 9 | 81.8% | 0 | 0 | na |
| Obstruction not marked | 27 | 19 | 8 | 6 | 75.0% | 0 | 0 | na |
| Holes/ruts in surface | 4 | 2 | 2 | 1 | 50.0% | 0 | 0 | na |
| Lane marking obscured | 4 | 1 | 3 | 2 | 66.7% | 0 | 0 | na |
| Traffic control problem | 2 | 1 | 1 | 1 | 100.0% | 0 | 0 | na |
| Shoulder defective | 1 | 1 | 0 | 0 | na | 0 | 0 | na |
| Glare | 0 | 0 | 0 | 0 | na | 0 | 0 | na |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Low — High

Notes:
1) Primary factor numbers represent counts of vehicles, involved in collisions in each primary factor category. Note that in multi-vehicle collisions, more than one vehicle may be *attributable*, meaning that the reported vehicle contributing circumstance matches the primary factor.
2) See glossary for definition of *primary factors* and *attributability*.
3) Excludes primary factors reported as *unknown*.

**Table 4.14. School buses involved in Indiana collisions, by primary factor, type of collision, and collision severity, 2014**

| Primary collision factor | All collisions | Single-vehicle collisions | School buses involved in: Multi-vehicle collisions | | | Fatal/incap collisions | Count attributable to school bus |
| --- | --- | --- | --- | --- | --- | --- | --- |
| | | | Total | Attributable to school bus Count | % | | |
| **School buses** | **895** | **81** | **814** | **449** | **55.2%** | **9** | **4** |
| **Driver: Unsafe actions** | **678** | **42** | **636** | **326** | **51.3%** | **7** | **2** |
| Failure to yield right of way | 121 | 6 | 115 | 56 | 48.7% | 2 | 1 |
| Following too closely | 109 | 0 | 109 | 22 | 20.2% | 1 | 0 |
| Improper turning | 107 | 12 | 95 | 81 | 85.3% | 0 | 0 |
| Unsafe backing | 97 | 9 | 88 | 64 | 72.7% | 0 | 0 |
| Speed too fast for weather conditions | 62 | 2 | 60 | 2 | 3.3% | 1 | 0 |
| Improper lane usage | 39 | 0 | 39 | 30 | 76.9% | 0 | 0 |
| Left of center | 37 | 0 | 37 | 17 | 45.9% | 1 | 0 |
| Improper passing | 36 | 0 | 36 | 30 | 83.3% | 0 | 0 |
| Unsafe lane movement | 34 | 3 | 31 | 19 | 61.3% | 0 | 0 |
| Disregard signal/reg sign | 17 | 0 | 17 | 4 | 23.5% | 2 | 1 |
| Unsafe speed | 10 | 2 | 8 | 0 | 0.0% | 0 | 0 |
| Ran off road right | 9 | 8 | 1 | 1 | 100.0% | 0 | 0 |
| **Driver: Loss of control** | **36** | **7** | **29** | **17** | **58.6%** | **1** | **1** |
| Overcorrecting/oversteering | 18 | 5 | 13 | 12 | 92.3% | 0 | 0 |
| Driver distracted | 17 | 2 | 15 | 5 | 33.3% | 1 | 1 |
| Other telematics in use | 1 | 0 | 1 | 0 | 0.0% | 0 | 0 |
| **Driver: Cognitive/physical impairment** | **3** | **0** | **3** | **0** | **0.0%** | **0** | **0** |
| Driver asleep or fatigued | 2 | 0 | 2 | 0 | 0.0% | 0 | 0 |
| Driver illness | 1 | 0 | 1 | 0 | 0.0% | 0 | 0 |
| **Driver: Miscellaneous factors** | **99** | **17** | **82** | **67** | **81.7%** | **1** | **1** |
| **Vehicle factors** | **41** | **2** | **39** | **23** | **59.0%** | **0** | **0** |
| Roadway surface condition | 22 | 1 | 21 | 13 | 61.9% | 0 | 0 |
| Brake failure or defective | 2 | 0 | 2 | 0 | 0.0% | 0 | 0 |
| Oversize/overweight load | 2 | 1 | 1 | 1 | 100.0% | 0 | 0 |
| Insecure/leaky load | 1 | 0 | 1 | 0 | 0.0% | 0 | 0 |
| Other - Vehicle | 14 | 0 | 14 | 9 | 64.3% | | |
| **Environmental factors** | **38** | **13** | **25** | **16** | **64.0%** | **0** | **0** |
| Animal on roadway | 12 | 10 | 2 | 2 | 100.0% | 0 | 0 |
| View obstructed | 9 | 1 | 8 | 4 | 50.0% | 0 | 0 |
| Glare | 2 | 0 | 2 | 0 | 0.0% | 0 | 0 |
| Obstruction not marked | 1 | 0 | 1 | 1 | 100.0% | 0 | 0 |
| Severe crosswinds | 1 | 1 | 0 | 0 | na | 0 | 0 |
| Other - Environmental | 13 | 1 | 12 | 9 | 75.0% | | |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Low — High

Notes:
1) Primary factor numbers represent counts of vehicles, involved in collisions in each primary factor category. Note that in multi-vehicle collisions, more than one vehicle may be *attributable*, meaning that the reported vehicle contributing circumstance matches the primary factor.
2) See glossary for definition of *primary factors* and *attributability*.
3) Excludes primary factors reported as *unknown*.

**Figure 4.1.  Percent of vehicles speeding in Indiana collisions, by vehicle type, 2014**



- Passenger car (n=221,460): 7.1%
- Sport utility vehicle (n=48,459): 7.2%
- Pickup truck (n=42,824): 7.8%
- Van (n=16,871): 5.1%
- Motorcycle (n=3,478): 10.4%
- Large truck (n=16,330): 6.4%

**Figure 4.2.  Percent of vehicles with one or more fatalities in Indiana collisions that were speeding, by vehicle type, 2014**



- Passenger car (n=296): 22.6%
- Sport utility vehicle (n=62): 32.3%
- Pickup truck (n=89): 21.3%
- Van (n=23): 13.0%
- Motorcycle (n=120): 35.0%
- Large truck (n=18): 33.3%

(Applies to Figures 4.1 and 4.2)

Source:  Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Notes:
1)  Large trucks are defined as vehicles reported as *single 2 axle, 6 tires; single 3 or more axles; truck/trailer — not semi; tractor — cab only, no trailer; tractor/one semi-trailer; tractor/double trailer;* and, *tractor/triple trailer.*
2)  Motorcycles includes vehicle types reported as *motorcyle* and *moped.*
3)  Vehicle types reported as non-motorists (*animal-drawn vehicle, bicycle,* and *pedestrian*)*, bus/seats 15+ persons with driver, bus/seats 9-15 persons with driver, combination vehicle, farm vehicle, motor home/recreational vehicle, unknown,* or *NULL* values are exluded.
4)  Passenger vehicles are defined as *passenger cars, sport utility vehicles, pickup trucks,* and *vans.*

**Figure 4.3. Percent of vehicles with an alcohol-impaired driver in Indiana collisions, by vehicle type, 2014**



| Vehicle type | Percent |
|---|---|
| Passenger car (n=221,460) | 1.3% |
| Sport utility vehicle (n=48,459) | 1.2% |
| Pickup truck (n=42,824) | 1.9% |
| Van (n=16,871) | 0.8% |
| Motorcycle (n=3,478) | 4.2% |
| Large truck (n=16,330) | 0.1% |
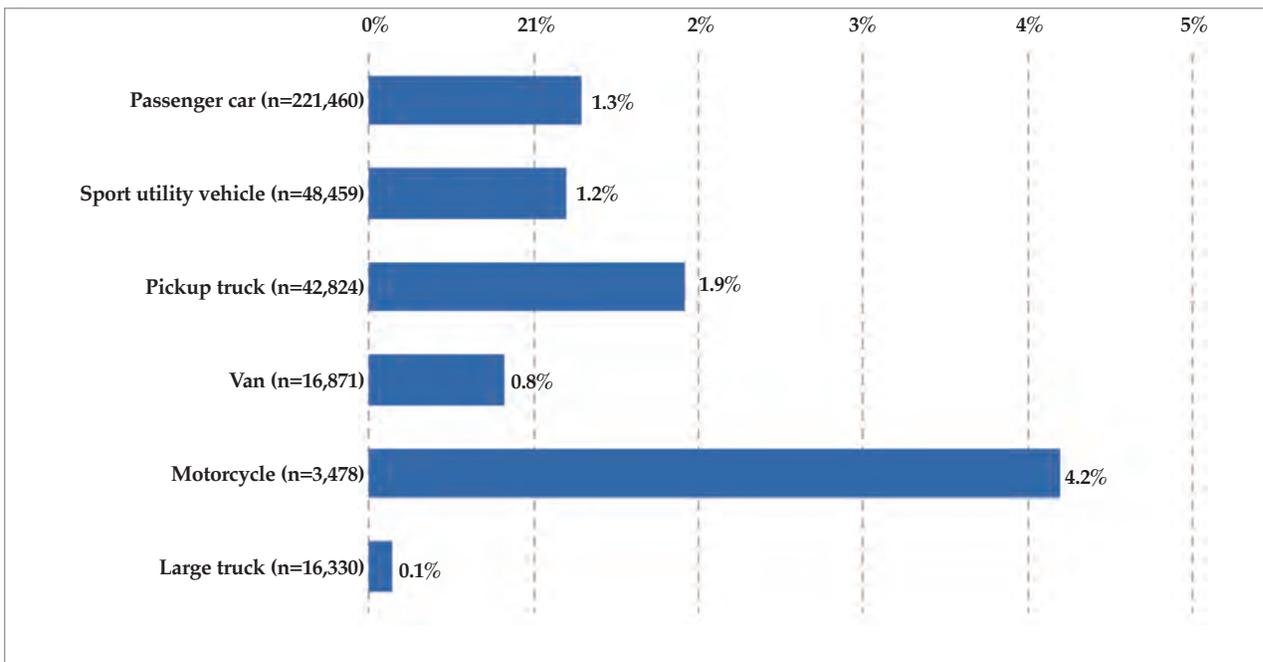
**Figure 4.4. Percent of vehicles with one or more fatalities in Indiana collisions that involved an alcohol-impaired driver, by vehicle type, 2014**



| Vehicle type | Percent |
|---|---|
| Passenger car (n=296) | 12.2% |
| Sport utility vehicle (n=62) | 16.1% |
| Pickup truck (n=89) | 19.1% |
| Van (n=23) | 8.7% |
| Motorcycle (n=120) | 12.5% |
| Large truck (n=18) | 0.0% |
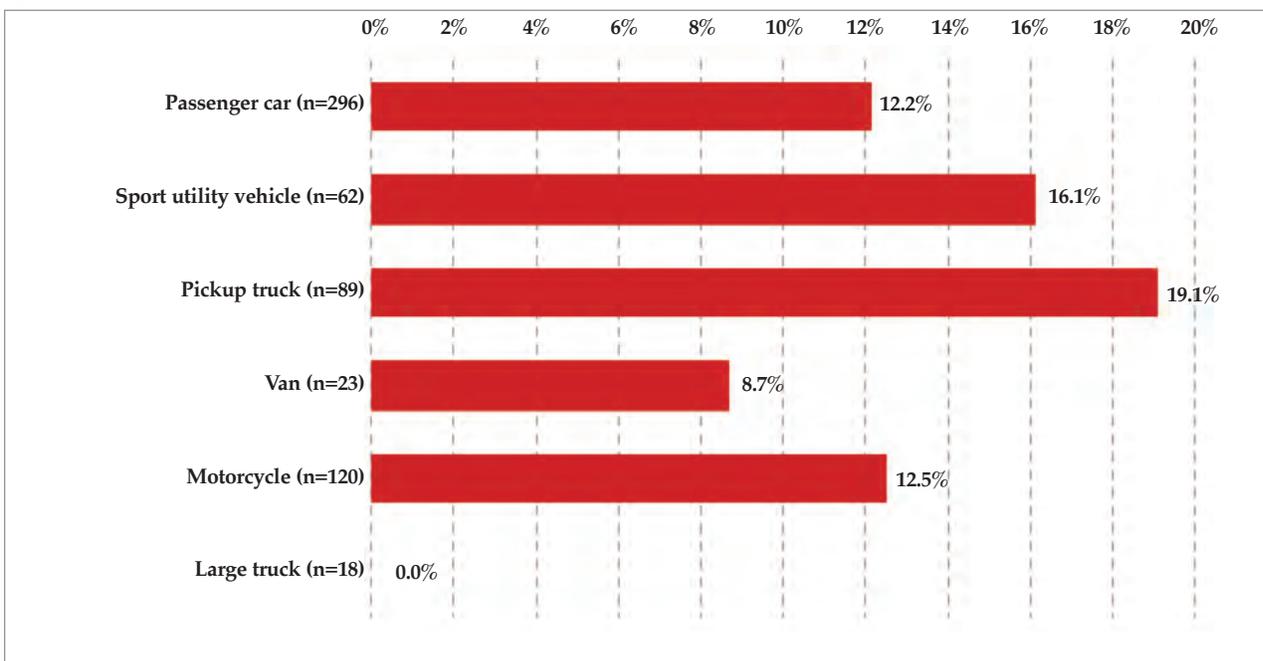
(Applies to Figures 4.3 and 4.4)

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) Large trucks are defined as vehicles reported as *single 2 axle, 6 tires; single 3 or more axles; truck/trailer — not semi; tractor — cab only, no trailer; tractor/one semi-trailer; tractor/double trailer;* and, *tractor/triple trailer.*
2) Motorcycles includes vehicle types reported as *motorcyle* and *moped.*
3) Vehicle types reported as non-motorists (*animal-drawn vehicle, bicycle,* and *pedestrian*), *bus/seats 15+ persons with driver, bus/seats 9-15 persons with driver, combination vehicle, farm vehicle, motor home/recreational vehicle, unknown,* or NULL values are exluded.
4) Passenger vehicles are defined as *passenger cars, sport utility vehicles, pickup trucks,* and *vans.*

**Figure 4.5. Geographic distribution of passenger vehicles in Indiana fatal and non-fatal collisions, by Census locale, 2014**
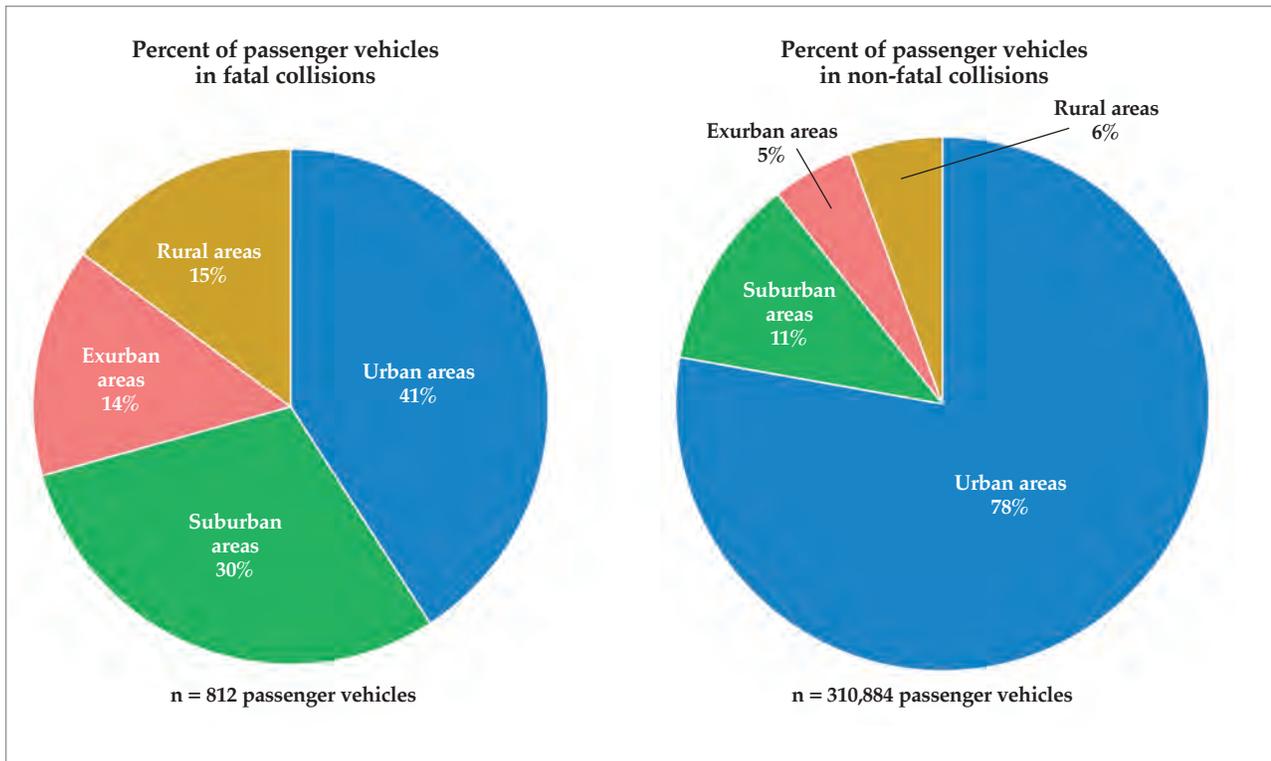
Percent of passenger vehicles
in fatal collisions

Rural areas
15%

Exurban
areas
14%

Urban areas
41%

Suburban
areas
30%

n = 812 passenger vehicles

Percent of passenger vehicles
in non-fatal collisions

Exurban areas
5%

Rural areas
6%

Suburban
areas
11%

Urban areas
78%

n = 310,884 passenger vehicles

Source:  Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) *Non-fatal* collisions includes *non-fatal injury* and *property damage only* collisions.
2) Excludes cases where locale could not be determined.
3) See glossary for Census locale definitions.
4) Passenger vehicles are defined as *passenger cars, sport utility vehicles, pickup trucks,* and *vans*.

**Figure 4.6. Rates of passenger vehicle involvement in fatal collisions, by Census locale and vehicle type, 2014**

**Passenger cars** involved in fatal collisions per 1,000 involved in all collisions, by locale

n = 498 cars in fatal crashes

| | | | |
|---|---|---|---|
| Urban areas 1.3 | Surburban areas 6.2 | Exurban areas 7.1 | Rural areas 5.8 |

**SUVs** involved in fatal collisions per 1,000 involved in all collisions, by locale

n = 118 SUVs in fatal crashes

| | | | |
|---|---|---|---|
| Urban areas 1.1 | Surburban areas 7.6 | Exurban areas 8.5 | Rural areas 8.6 |

**Pickup trucks** involved in fatal collisions per 1,000 involved in all collisions, by locale

n = 153 pickup trucks in fatal crashes

| | | | |
|---|---|---|---|
| Urban areas 1.8 | Surburban areas 7.7 | Exurban areas 8.6 | Rural areas 8.4 |

**Vans** involved in fatal collisions per 1,000 involved in all collisions, by locale

n = 43 vans in fatal crashes

| | | | |
|---|---|---|---|
| Urban areas 1.6 | Surburban areas 6.3 | Exurban areas 5.5 | Rural areas 9.2 |

Source:  Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) Excludes cases where locale could not be determined.
2) See glossary for Census locale definitions.
3) Passenger vehicles are defined as *passenger cars, sport utility vehicles, pickup trucks,* and *vans.*

**Figure 4.7. Fatality rates and geographic distribution of large trucks in fatal and non-fatal Indiana collisions, by Census locale, 2014**



**Large trucks involved in fatal collisions per 1,000 involved in all collisions, by locale**

n = 153 Large trucks

Urban areas 4.7
Surburban areas 17.2
Exurban areas 20.3
Rural areas 15.7

**Percent of large trucks in fatal collisions**

Urban areas 28%
Suburban areas 34%
Exurban areas 22%
Rural areas 16%

n = 153 large trucks

**Percent of large trucks in non-fatal collisions**

Urban areas 60%
Suburban areas 19%
Exurban areas 11%
Rural areas 10%

n = 15,265 large trucks

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) *Non-fatal* collisions includes *non-fatal injury* and *property damage only* collisions.
2) Excludes cases where locale could not be determined.
3) See glossary for Census locale definitions.
4) Large trucks are defined as vehicles reported as *single 2 axle, 6 tires; single 3 or more axles; truck/trailer — not semi; tractor — cab only, no trailer; tractor/one semi-trailer; tractor/double trailer;* and, *tractor/triple trailer.*

# CHAPTER 5
# MOTORCYCLES

# MOTORCYCLES, 2014

## Single- and Multi-vehicle Collisions

While traffic collisions *not* involving motorcycles increased nearly 7 percent in 2014, collisions involving motorcycles decreased 3 percent from 2013 to 2014 (Table 5.1). Conversely, while *fatal collisions* not involving motorcycles decreased 3 percent in 2014, fatal motorcycle collisions increased 8 percent, from 114 in 2013 to 123 in 2014. (Unless specified otherwise, *motorcycles* include *mopeds*.) Each year from 2010 to 2014, there were more *multi-vehicle* (MV) than *single-vehicle* (SV) motorcycle collisions. SV collision *injury* rates are higher than MV rates (calculated from Table 5.1).

## Month, Day, and Time

Motorcycle collisions occur at somewhat predictable times, months, and days. In 2014, the count of injury collisions involving motorcycles generally peaked from 3pm to 6pm, while the proportion of all injury collisions that involved motorcycles peaked around 10pm (Figure 5.1). Counts of fatal and incapacitating collisions involving motorcycles were highest during May through September (Figure 5.2), and were typically highest on the weekends (from 6pm Friday to 5:59 am Monday) (Figure 5.3).

## Collision Characteristics

Injury rates in motorcycle collisions are associated with different collision characteristics. As in previous years, motorcycle collisions in 2014 occurred predominately during *clear weather conditions,* on *straight/level* roads not involving *road junctions,* and on *local/city roads.* The probability of fatal motorcycle collisions was highest on *interstates* (7 percent), *county roads* (6 percent), and *curves* (6 percent). The highest probability of a fatal collision involving one or more motorcycles by type of road junction was on *interchange/ramp* road junctions (11 percent) (Table 5.2).

## Non-motorist Involvement

In 2014, a total of 207 traffic units (i.e., vehicles and/or non-motorists) were involved in fatal motorcycle collisions, while 3,636 traffic units were involved in non-fatal collisions involving motorcycles. Motorcycles comprised roughly two-thirds of involved vehicles, with the other one-third involving predominantly passenger vehicles (Figure 5.4).

## Primary Factor

In MV motorcycle collisions, there is a difference between the likelihood the motorcycle or the other vehicle was at fault (i.e., a vehicle's *contributing circumstance* matched the *primary factor* in the collision—referred to in Table 5.3 as being *attributable*). In 2014, MV collisions involving motorcycles most frequently involved some type of *unsafe action* by either or both the motor-

cyclist and/or the *other vehicle* driver. Overall in 2014, other vehicles were somewhat more likely to be *attributable* (58 percent were *attributable*) than the *motorcycles* (42 percent were *attributable*). However, certain collisions involving selected primary factors were more likely to be the fault of motorcyclists in MV motorcycle collisions in 2014, including *unsafe speed, improper passing,* and *speed too fast for weather conditions* (Table 5.3).

## Speed Involvement

When collisions occur involving motorcycles and other vehicles, motorcycles are considerably more likely to be speeding (Table 5.4). Motorcycles were speeding in about 17 percent of SV collisions, but only about 5 percent of MV collisions.. Examining only MV collisions, motorcycles are more likely than other involved vehicles to be categorized as *speeding*.

## Alcohol Involvement and Motorcyclist Injuries

From 2010 to 2012, the likelihood of alcohol impairment was typically higher for motorcyclists than other involved drivers (Figure 5.5). However, in 2013 and 2014, collision-involved motorcycle operators were no more likely than the drivers of other vehicles (in non-motorcycle collisions) to be impaired. The steep decline in motorcycle operator impairment from 2012 to 2013/2014 should be interpreted with caution, and may be linked to non-reporting or late reporting of drug and alcohol tests in the March 25, 2015, version of ARIES. For example, considering all drivers in fatal and incapacitating injury collisions in 2014, less than 15 percent had an actual alcohol test result reported in ARIES as of March 25, 2015 (not shown in exhibits).

From 2013 to 2014, the number of motorcyclists killed increased 5 percent, from 119 to 125, and the count of riders with incapacitating injuries actually decreased 4 percent, from 575 to 551. In 2013 and 2014, the fatal and incapacitating injury rate for motorcyclists was 18 percent. Overall in 2014, about 76 percent motorcycle riders in collisions experienced some type of injury or death (Table 5.5).

Among the 125 motorcyclist fatalities in 2014, 77 occurred in MV collisions (in which 8 percent of the motorcycles were driven by an alcohol-impaired operator), and 48 in SV collisions (in which 19 percent of the motorcycles were operated by alcohol-impaired drivers) (Table 5.6). In terms of *blood alcohol content* (BAC) results, the number of motorcycle operators with a BAC of 0.08 g/dL or more increased from 46 in 2013 to 50 in 2014. Over the five-year period, the number of operators with 0.15 BAC and greater grew annually by less than one percent.

# MOTORCYCLES

BAC and greater grew annually by less than one percent. Among the reported BAC results each year from 2010 to 2014, anywhere from 37 percent to more than 50 percent of motorcycle operators were in excess of 0.08 BAC (Table 5.7). The count of motorcycle operators in fatal and incapacitating injury collisions with *reported* BAC results in ARIES declined sharply from 2012 to 2014.

## Helmet Use

Among motorcyclists involved in Indiana collisions, helmet use is typically associated with lower fatality and injury rates. However, most collision-involved riders are not wearing helmets (Table 5.8 and Figure 5.6). Of the 125 motorcycle fatalities in 2014, only 27 (22 percent) were reported to be wearing helmets. Among only motorcyclists for whom helmet use and age were known, those without helmets experienced higher fatal

(3.2 percent) and incapacitating injury rates (15.7 percent) than those wearing helmets (2.8 percent and 11.6 percent, respectively). Fatal and incapacitating injury rates were lower for helmeted riders than for unhelmeted riders.

Considering all injuries sustained by motorcyclists, injuries to *helmeted* and *unhelmeted* riders do not vary much by nature, but do vary by injury location (Table 5.9). In 2014, unhelmeted riders experienced injuries to the *neck and above* 35 percent of the time, compared to 30 percent of the time for riders with helmets. *Helmeted* riders were reported with proportionally more injuries to the *entire body* (34 percent) and *torso* (13 percent) than were unhelmeted riders (10 percent for both). In terms of fatalities, however, far more unhelmeted riders are killed (Table 5.10). Among the 125 motorcyclist fatalities in 2014, there were 68 (69 percent) unhelmeted riders with injuries to the *neck or above*.

**Table 5.1. Number of collisions, by motorcycle (MC) involvement, severity, and collision type, 2010-2014**

| | Count of collisions | | | | | Annual rate of change | |
|---|---|---|---|---|---|---|---|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2013-14 | 2010-14 |
| **All collisions** | 193,379 | 188,453 | 189,160 | 193,205 | 205,532 | 6.4% | 1.5% |
| **MC involved** | 3,436 | 3,556 | 4,111 | 3,524 | 3,407 | -3.3% | -0.2% |
| Fatal | 110 | 117 | 146 | 114 | 123 | 7.9% | 2.8% |
| Incapacitating | 493 | 511 | 583 | 536 | 521 | -2.8% | 1.4% |
| Non-incapacitating | 1,922 | 1,915 | 2,316 | 1,906 | 1,832 | -3.9% | -1.2% |
| Property damage | 911 | 1,013 | 1,066 | 968 | 931 | -3.8% | 0.5% |
| **Multi-vehicle** | 1,876 | 1,985 | 2,340 | 2,031 | 1,945 | -4.2% | 0.9% |
| Fatal | 61 | 63 | 83 | 62 | 74 | 19.4% | 4.9% |
| Incapacitating | 235 | 259 | 268 | 290 | 257 | -11.4% | 2.3% |
| Non-incapacitating | 942 | 931 | 1,201 | 975 | 934 | -4.2% | -0.2% |
| Property damage | 638 | 732 | 788 | 704 | 680 | -3.4% | 1.6% |
| **Single-vehicle** | 1,560 | 1,571 | 1,771 | 1,493 | 1,462 | -2.1% | -1.6% |
| Fatal | 49 | 54 | 63 | 52 | 49 | -5.8% | 0.0% |
| Incapacitating | 258 | 252 | 315 | 246 | 264 | 7.3% | 0.6% |
| Non-incapacitating | 980 | 984 | 1,115 | 931 | 898 | -3.5% | -2.2% |
| Property damage | 273 | 281 | 278 | 264 | 251 | -4.9% | -2.1% |
| **No MC involved** | 189,943 | 184,897 | 185,049 | 189,681 | 202,125 | 6.6% | 1.6% |
| Fatal | 590 | 558 | 574 | 596 | 579 | -2.9% | -0.5% |
| Incapacitating | 2,426 | 2,355 | 2,657 | 2,401 | 3,897 | 62.3% | 12.6% |
| Non-incapacitating | 29,306 | 28,008 | 28,576 | 28,003 | 27,573 | -1.5% | -1.5% |
| Property damage | 157,621 | 153,976 | 153,242 | 158,681 | 170,076 | 7.2% | 1.9% |

**Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015**

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**Figure 5.1. Motorcycle (MC) involved injury collisions in Indiana, by hour of the day, 2014**
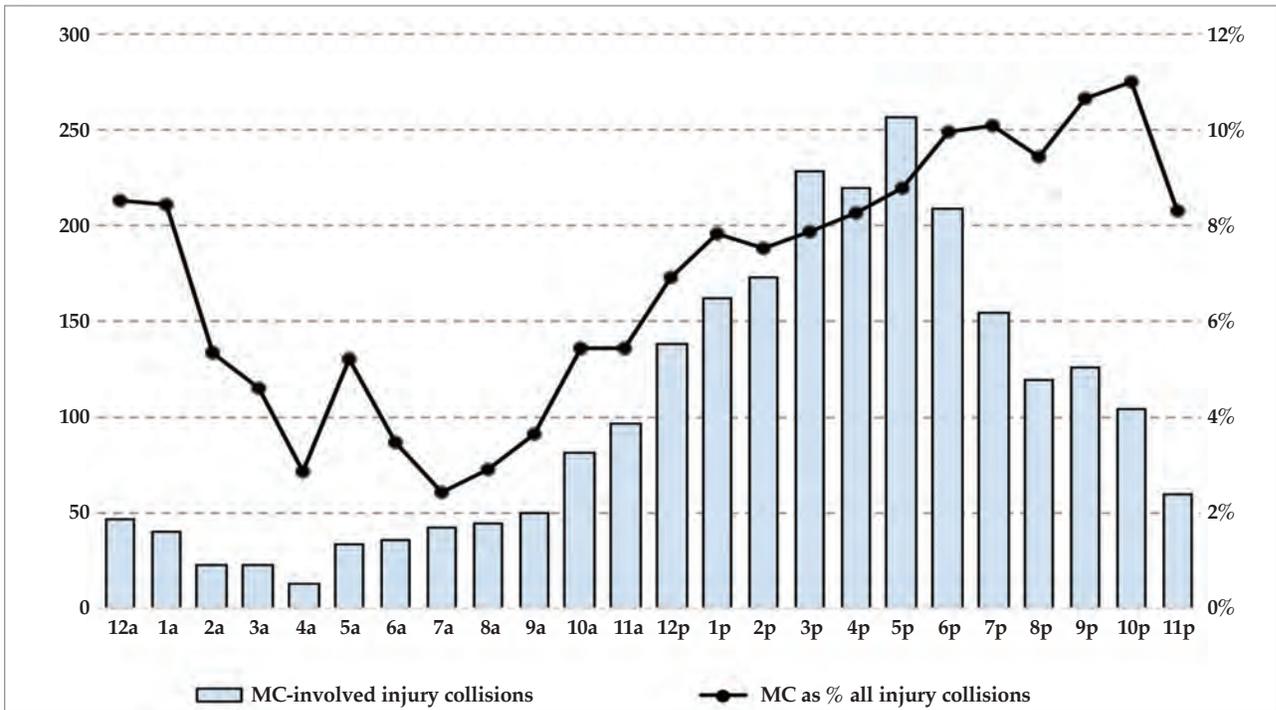


Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) Excludes collisions where *hour* or *injury status* was unknown or not reported.
2) *Injury collisions* include those with at least one *fatal, incapacitating,* or *non-incapacitating* injury.

**Figure 5.2. Fatal and incapacitating collisions involving motorcycles, by month, 2014**
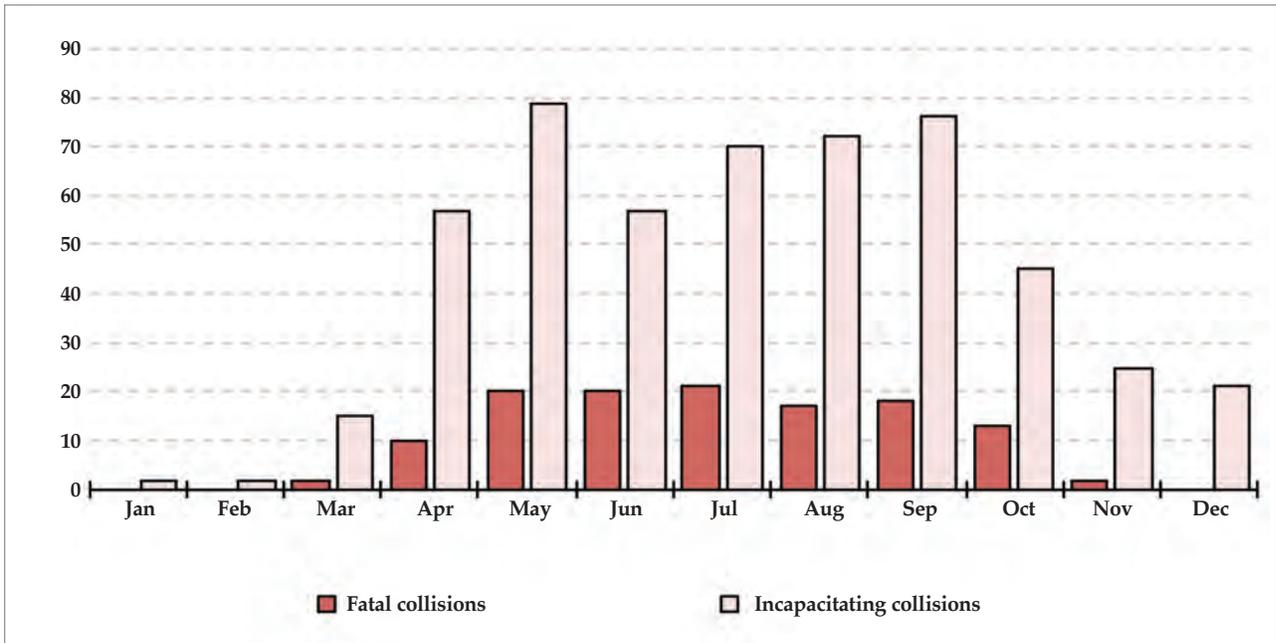


Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

**Figure 5.3. Fatal and incapacitating collisions involving motorcycles, by weekday, 2014**
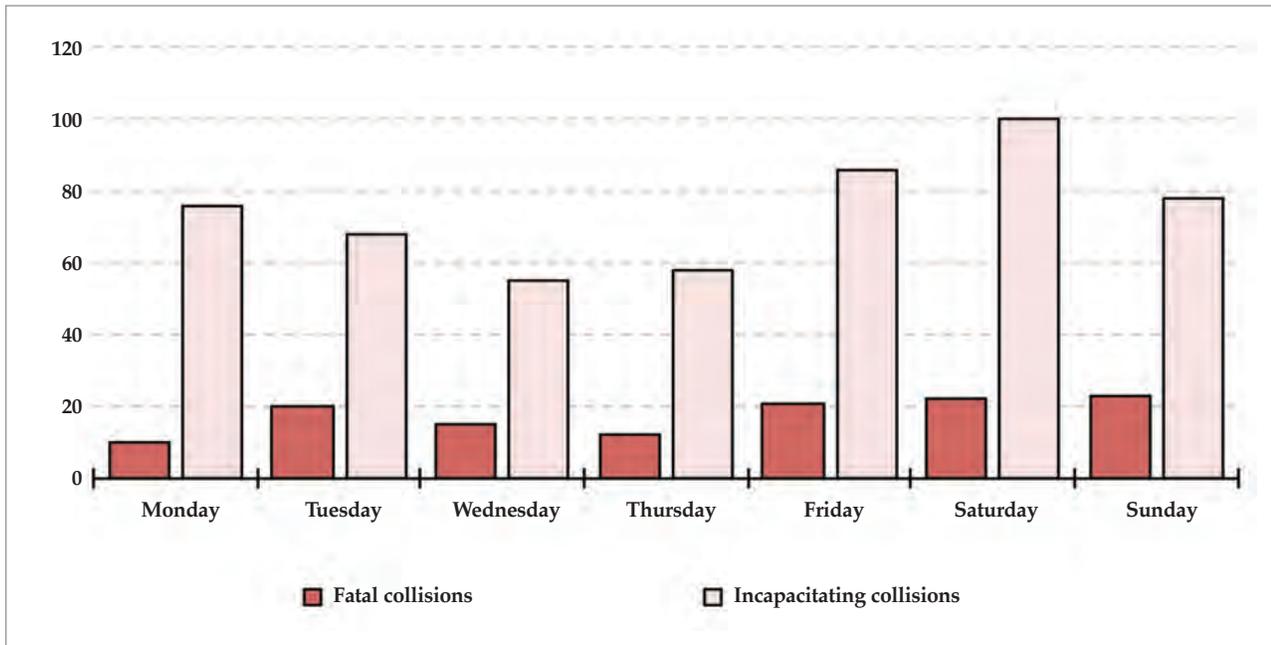


Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

**Table 5.2. Characteristics of motorcycle collisions, by severity of collision, 2014**

| Characteristics | Number of collisions | | | | | Probability of collision severity | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| | Fatal | Incapa-citating | Non-incapacitating | Property damage | Total | Fatal | Incapa-citating |
| **Weather conditions** | | | | | | | |
| Clear | 97 | 405 | 1,461 | 755 | 2,718 | 3.6% | 14.9% |
| Cloudy or poor visibility | 24 | 93 | 295 | 128 | 540 | 4.4% | 17.2% |
| Extreme weather | 2 | 23 | 75 | 47 | 147 | 1.4% | 15.6% |
| **Road junctions** | | | | | | | |
| No junction involved | 74 | 327 | 1,118 | 592 | 2,111 | 3.5% | 15.5% |
| Intersections | 41 | 182 | 688 | 314 | 1,225 | 3.3% | 14.9% |
| Interchange/ramp | 8 | 12 | 26 | 25 | 71 | 11.3% | 16.9% |
| **Road character** | | | | | | | |
| Straight (level) | 70 | 343 | 1,251 | 691 | 2,355 | 3.0% | 14.6% |
| Curves | 38 | 108 | 345 | 115 | 606 | 6.3% | 17.8% |
| Straight (non-level) | 15 | 68 | 219 | 110 | 412 | 3.6% | 16.5% |
| Non-roadway | 0 | 2 | 15 | 15 | 32 | 0.0% | 6.3% |
| **Road class** | | | | | | | |
| Local/city | 56 | 266 | 1,018 | 496 | 1,836 | 3.1% | 14.5% |
| Highway | 33 | 151 | 429 | 211 | 824 | 4.0% | 18.3% |
| County | 25 | 81 | 254 | 92 | 452 | 5.5% | 17.9% |
| Interstate | 7 | 14 | 51 | 34 | 106 | 6.6% | 13.2% |

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) Excludes collisions where characteristic was *unknown* or *not reported*.
2) Selected characteristics are re-grouped from collision characteristics reported in ARIES, as shown below.
   a. *Weather conditions:*
      *Cloudy or poor visibility* includes *cloudy, fog/smoke/smog,* and *blowing sand/soil/snow.*
      *Extreme weather* includes *rain, severe cross wind, sleet/hail/freezing rain,* and *snow.*
   b. *Road junctions:*
      *Intersections* includes *five point or more, four-way intersection, T-intersection, traffic circle/roundabout, RR crossing,* and *Y-intersection.*
      *Interchange/ramp* includes *interchange* and *ramp.*
   c. *Road character:*
      *Curves* includes *curve/grade, curve/hillcrest,* and *curve/level.*
      *Straight/grade/hillcrest* includes *straight/grade* and *straight/hillcrest.*
   d. *Road class:*
      *Highway* includes *state road* and *US route.*

**Figure 5.4. Vehicles and non-motorists in Indiana collisions involving motorcycles (MC), 2014**
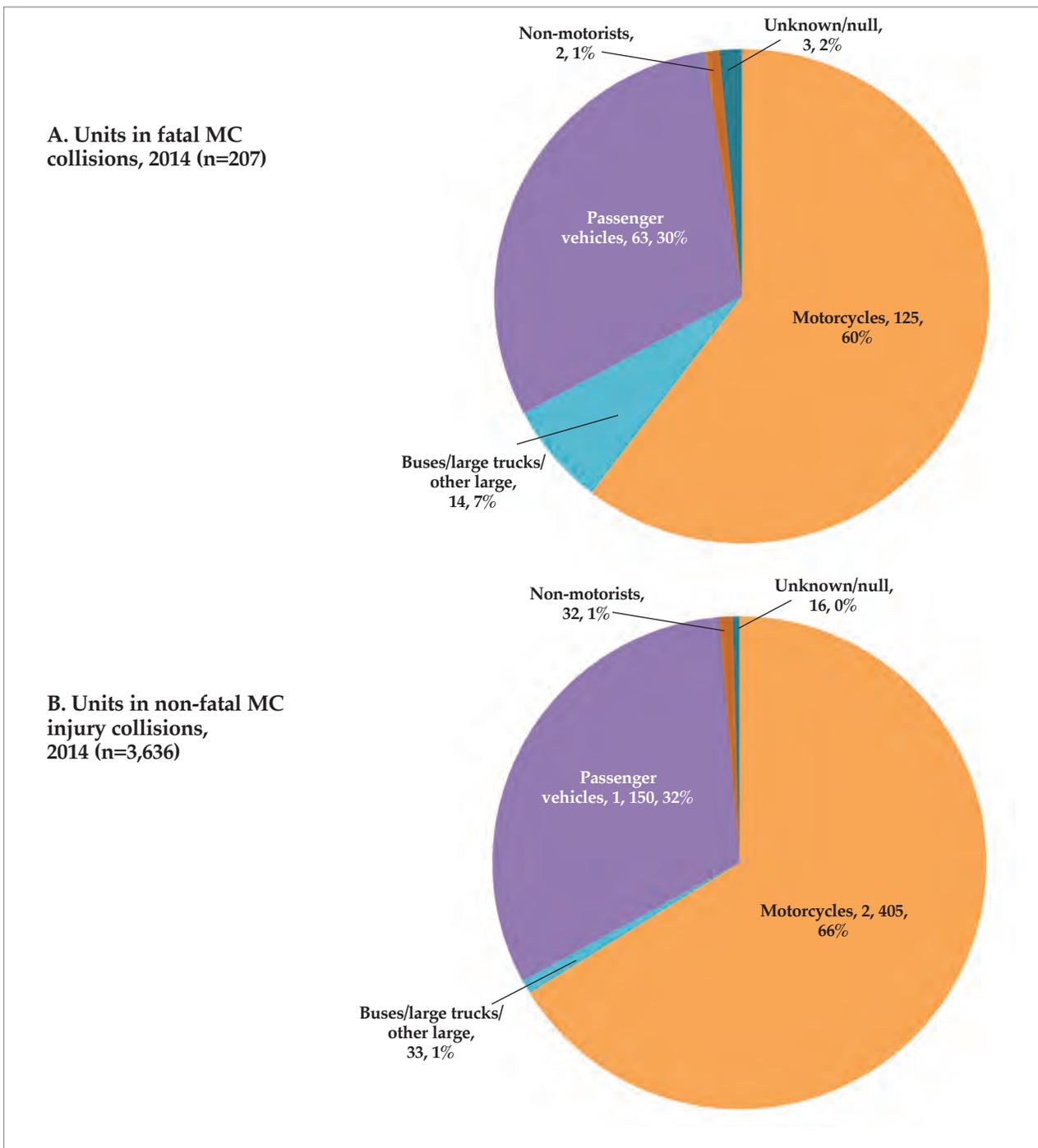
A. Units in fatal MC collisions, 2014 (n=207)

Non-motorists, 2, 1%
Unknown/null, 3, 2%
Passenger vehicles, 63, 30%
Motorcycles, 125, 60%
Buses/large trucks/other large, 14, 7%

B. Units in non-fatal MC injury collisions, 2014 (n=3,636)

Non-motorists, 32, 1%
Unknown/null, 16, 0%
Passenger vehicles, 1, 150, 32%
Motorcycles, 2, 405, 66%
Buses/large trucks/other large, 33, 1%

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) *Non-fatal injury* collisions include *incapacitating* and *non-incapacitating* injury collisions.
2) *Units* refers to *motor vehicles* and *non-motorists* involved in collisions.

**Table 5.3. Vehicles involved in Indiana multi-vehicle motorcycle collisions, by vehicle type, primary factor, and vehicle attributability to collision occurrence, 2014**

| Primary factor | Vehicles involved | | Count of vehicles attributable | | % Attributable | |
|---|---|---|---|---|---|---|
| | Motorcycle | Other vehicles | Motorcycle | Other vehicles | Motorcycle | Other vehicles |
| **Unsafe actions** | **1,687** | **1,662** | **639** | **1,003** | **37.9%** | **60.3%** |
| Failure to yield right of way | 715 | 725 | 136 | 579 | 19.0% | 79.9% |
| Following too closely | 341 | 314 | 201 | 117 | 58.9% | 37.3% |
| Disregard signal/reg sign | 101 | 103 | 66 | 32 | 65.3% | 31.1% |
| Unsafe backing | 101 | 101 | 1 | 96 | 1.0% | 95.0% |
| Unsafe speed | 79 | 75 | 54 | 17 | 68.4% | 22.7% |
| Unsafe lane movement | 74 | 72 | 26 | 47 | 35.1% | 65.3% |
| Improper passing | 72 | 73 | 55 | 16 | 76.4% | 21.9% |
| Improper turning | 72 | 71 | 28 | 44 | 38.9% | 62.0% |
| Left of center | 63 | 64 | 33 | 30 | 52.4% | 46.9% |
| Improper lane usage | 59 | 56 | 30 | 25 | 50.8% | 44.6% |
| Speed too fast for weather conditions | 5 | 5 | 5 | 0 | 100.0% | 0.0% |
| Wrong way on one way | 5 | 3 | 4 | 0 | 80.0% | 0.0% |
| **Distraction** | **48** | **49** | **23** | **27** | **47.9%** | **55.1%** |
| **Vehicle-related** | **48** | **50** | **36** | **10** | **75.0%** | **20.0%** |
| **Loss of control** | **39** | **30** | **29** | **7** | **74.4%** | **23.3%** |
| **Environmental** | **38** | **34** | **24** | **22** | **63.2%** | **64.7%** |
| **Cognitive impairment** | **4** | **9** | **1** | **3** | **25.0%** | **33.3%** |
| **All other** | **145** | **130** | **90** | **66** | **62.1%** | **50.8%** |
| **Total** | **2,009** | **1,964** | **842** | **1,138** | **41.9%** | **57.9%** |

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) See glossary for definition of *attributable* and *unsafe backing.*
2) A vehicle is *attributable* to the occurrence of a collision when the officer marks a *contributing circumstance* for that vehicle that also matches the collision *primary factor.* In multi-vehicle collisions, more than one vehicle can be classified as attributable.
3) Data exclude single-vehicle collisions involving motorcycles and collisions with unknown or unreported primary factor.
4) *Other vehicles* excludes *unknown* unit type, *pedestrians, bicycles,* and *animal-drawn vehicles.*

**Table 5.4. Speeding status of motorcycles and other vehicles involved in Indiana motorcycle collisions, 2010-2014**

| | Vehicles involved | | | | | Annual rate of change | |
|---|---|---|---|---|---|---|---|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2013-14 | 2010-14 |
| **Single-vehicle (SV) collisions** | | | | | | | |
| **Motorcycles** | **1,560** | **1,571** | **1,771** | **1,493** | **1,462** | **-2.1%** | **-1.6%** |
| Speeding | 239 | 277 | 284 | 270 | 255 | -5.6% | 1.6% |
| Not speeding | 1,321 | 1,294 | 1,487 | 1,223 | 1,207 | -1.3% | -2.2% |
| **Multi-vehicle (MV) collisions** | | | | | | | |
| **Motorcycles** | **1,942** | **2,058** | **2,441** | **2,102** | **2,016** | **-4.1%** | **0.9%** |
| Speeding | 93 | 107 | 138 | 105 | 107 | 1.9% | 3.6% |
| Not speeding | 1,849 | 1,951 | 2,303 | 1,997 | 1,909 | -4.4% | 0.8% |
| **Other vehicles** | **1,902** | **2,042** | **2,374** | **2,066** | **1,972** | **-4.5%** | **0.9%** |
| Speeding | 22 | 28 | 29 | 31 | 30 | -3.2% | 8.1% |
| Not speeding | 1,880 | 2,014 | 2,345 | 2,035 | 1,942 | -4.6% | 0.8% |
| **Percent speeding** | | | | | | | |
| Motorcycles—SV | 15.3% | 17.6% | 16.0% | 18.1% | 17.4% | | |
| Motorcycles—MV | 4.8% | 5.2% | 5.7% | 5.0% | 5.3% | | |
| Other vehicles—MV | 1.2% | 1.4% | 1.2% | 1.5% | 1.5% | | |

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015
Note: *Other* vehicles excludes *unknown* unit type, *pedestrians, bicycles,* and *animal-drawn vehicles.*

**Figure 5.5.   Percent of vehicles and non-motorists with alcohol-impaired drivers in fatal collisions, by motorcycle (MC) involvement, 2010-2014**
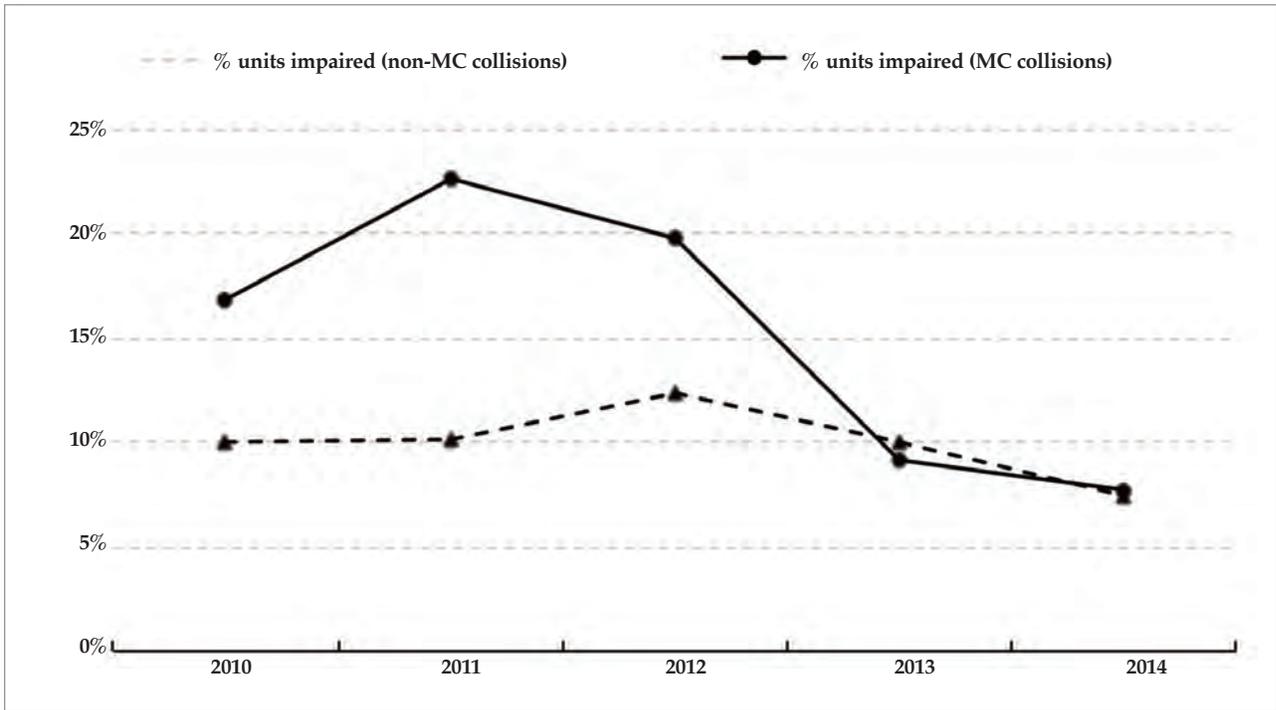


Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015
Note: *Units* refers to *motor vehicles* and *non-motorists* involved in collisions.

**Table 5.5.  Indiana motorcycle rider injuries, 2010-2014**

| Injury status | Count of individuals | | | | | Annual rate of change | |
|---|---|---|---|---|---|---|---|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2013-14 | 2010-14 |
| **Total** | **3,729** | **3,815** | **4,465** | **3,795** | **3,686** | **-2.9%** | **-0.3%** |
| Fatal | 110 | 118 | 151 | 119 | 125 | 5.0% | 3.2% |
| Incapacitating | 529 | 553 | 617 | 575 | 551 | -4.2% | 1.0% |
| Non-incapacitating | 2,163 | 2,154 | 2,636 | 2,166 | 2,093 | -3.4% | -0.8% |
| Other | 25 | 18 | 33 | 14 | 27 | 92.9% | 1.9% |
| Not injured | 902 | 972 | 1,028 | 921 | 890 | -3.4% | -0.3% |
| **% injured** | **75.8%** | **74.5%** | **77.0%** | **75.7%** | **75.9%** | | |
| **% fatal + incapacitating** | **17.1%** | **17.6%** | **17.2%** | **18.3%** | **18.3%** | | |

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015
Notes:
1) *Other* injury includes *unknown, '+', not reported, refused,* and *died from natural causes.*
2) *Motorcycle riders* include operators and passengers of motorcycles and/or mopeds.

**Table 5.6.  Individuals involved in Indiana  motorcycle collisions, by collision type, vehicle type, driver alcohol impairment, and injury status, 2014**

| Type of vehicle/alcohol status | Count of individuals, by injury status | | | | | Total |
| --- | --- | --- | --- | --- | --- | --- |
| | Fatal | Incapacitating | Non-incapacitating | Other injury | No injury | |
| **Single-vehicle collisions** | | | | | | |
| **Motorcycles** | 48 | 271 | 1,033 | 10 | 278 | 1,640 |
| Alcohol-impaired unit | 9 | 29 | 64 | 1 | 18 | 121 |
| % alcohol-impaired | 18.8% | 10.7% | 6.2% | 10.0% | 6.5% | 7.4% |
| **Multi-vehicle collisions** | | | | | | |
| **Motorcycles** | 77 | 280 | 1,060 | 17 | 612 | 2,046 |
| Alcohol-impaired unit | 6 | 7 | 17 | 0 | 9 | 39 |
| % alcohol-impaired | 7.8% | 2.5% | 1.6% | 0.0% | 1.5% | 1.9% |
| **All other vehicles** | 1 | 4 | 93 | 52 | 1,606 | 1,756 |
| Alcohol-impaired unit | 0 | 1 | 0 | 0 | 29 | 30 |
| % alcohol-impaired | -- | 25.0% | 0.0% | 0.0% | 1.8% | 1.7% |

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

Notes:
1)  See glossary for definitions of *alcohol-impaired.*
2)  *Other injury* includes *unknown, '+', not reported, refused,* and *died from natural causes.*

**Table 5.7.  Motorcycle operators involved in Indiana fatal and incapacitating collisions, by blood alcohol content (BAC) (g/dL), 2010-2014**

| BAC range, g/dL | 2010 | 2011 | 2012 | 2013 | 2014 | Annual rate of change | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| | | | | | | 2013-14 | 2010-14 |
| **Total motorcycle operators** | **620** | **641** | **754** | **662** | **656** | **-0.9%** | **1.4%** |
| No BAC reported | 486 | 489 | 571 | 537 | 549 | 2.2% | 3.1% |
| *% total operators* | *78.4%* | *76.3%* | *75.7%* | *81.1%* | *83.7%* | | |
| < 0.01 | 53 | 66 | 84 | 60 | 45 | -25.0% | -4.0% |
| *% total operators* | *8.5%* | *10.3%* | *11.1%* | *9.1%* | *6.9%* | | |
| 0.01 < 0.08 | 15 | 8 | 19 | 19 | 12 | -36.8% | -5.4% |
| *% total operators* | *2.4%* | *1.2%* | *2.5%* | *2.9%* | *1.8%* | | |
| 0.08 < 0.15 | 28 | 24 | 27 | 9 | 11 | 22.2% | -20.8% |
| *% total operators* | *4.5%* | *3.7%* | *3.6%* | *1.4%* | *1.7%* | | |
| 0.15 and greater | 38 | 54 | 53 | 37 | 39 | 5.4% | 0.7% |
| *% total operators* | *6.1%* | *8.4%* | *7.0%* | *5.6%* | *5.9%* | | |
| **As % of reported results** | | | | | | | |
| < 0.01 | 39.6% | 43.4% | 45.9% | 48.0% | 42.1% | | |
| 0.01 < 0.08 | 11.2% | 5.3% | 10.4% | 15.2% | 11.2% | | |
| 0.08 < 0.15 | 20.9% | 15.8% | 14.8% | 7.2% | 10.3% | | |
| 0.15 and greater | 28.4% | 35.5% | 29.0% | 29.6% | 36.4% | | |

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) g/dL = grams per deciliter.
2) Excludes BAC > 0.59 g/dL.

**Table 5.8. Motorcyclists involved in collisions, by rider characteristics and injury status, 2014**

| Characteristics | Count of individuals, by injury status | | | | | | Probability of injury status | |
| | Fatal | Incapa-citating | Non-incapacitating | Other injury | No injury | Total | Fatal | Incapa-citating |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Type of individual** | **125** | **551** | **2,093** | **27** | **890** | **3,686** | **3.4%** | **14.9%** |
| Operator | 111 | 489 | 1,802 | 25 | 878 | 3,305 | 3.4% | 14.8% |
| Injured passenger | 14 | 62 | 291 | 2 | 12 | 381 | 3.7% | 16.3% |
| **Helmet use/age group** | | | | | | | | |
| **Helmet** | **27** | **113** | **552** | **4** | **280** | **976** | **2.8%** | **11.6%** |
| Under 21 | 3 | 13 | 110 | 1 | 35 | 162 | 1.9% | 8.0% |
| 21-24 | 2 | 9 | 69 | 0 | 34 | 114 | 1.8% | 7.9% |
| 25-34 | 6 | 26 | 98 | 1 | 60 | 191 | 3.1% | 13.6% |
| 35-44 | 1 | 6 | 62 | 0 | 38 | 107 | 0.9% | 5.6% |
| 45-54 | 10 | 22 | 83 | 0 | 59 | 174 | 5.7% | 12.6% |
| 55-64 | 3 | 29 | 95 | 2 | 42 | 171 | 1.8% | 17.0% |
| 65 and older | 2 | 8 | 35 | 0 | 12 | 57 | 3.5% | 14.0% |
| **No helmet** | **73** | **353** | **1,339** | **15** | **472** | **2,252** | **3.2%** | **15.7%** |
| Under 21 | 1 | 32 | 216 | 2 | 62 | 313 | 0.3% | 10.2% |
| 21-24 | 10 | 29 | 109 | 1 | 50 | 199 | 5.0% | 14.6% |
| 25-34 | 14 | 66 | 254 | 4 | 89 | 427 | 3.3% | 15.5% |
| 35-44 | 11 | 76 | 251 | 2 | 85 | 425 | 2.6% | 17.9% |
| 45-54 | 25 | 87 | 299 | 3 | 99 | 513 | 4.9% | 17.0% |
| 55-64 | 7 | 49 | 155 | 3 | 60 | 274 | 2.6% | 17.9% |
| 65 and older | 5 | 14 | 55 | 0 | 27 | 101 | 5.0% | 13.9% |
| **Gender** | | | | | | | | |
| **Male** | **110** | **456** | **1,662** | **24** | **834** | **3,086** | **3.6%** | **14.8%** |
| Operator | 109 | 447 | 1,599 | 22 | 828 | 3,005 | 3.6% | 14.9% |
| Injured passenger | 1 | 9 | 63 | 2 | 6 | 81 | 1.2% | 11.1% |
| **Female** | **15** | **95** | **431** | **2** | **53** | **596** | **2.5%** | **15.9%** |
| Operator | 2 | 42 | 203 | 2 | 47 | 296 | 0.7% | 14.2% |
| Injured passenger | 13 | 53 | 228 | 0 | 6 | 300 | 4.3% | 17.7% |

**Figure 5.6. Fatal and incapacitating injuries as percent of total motorcyclist injuries, by helmet use and age group, 2014**
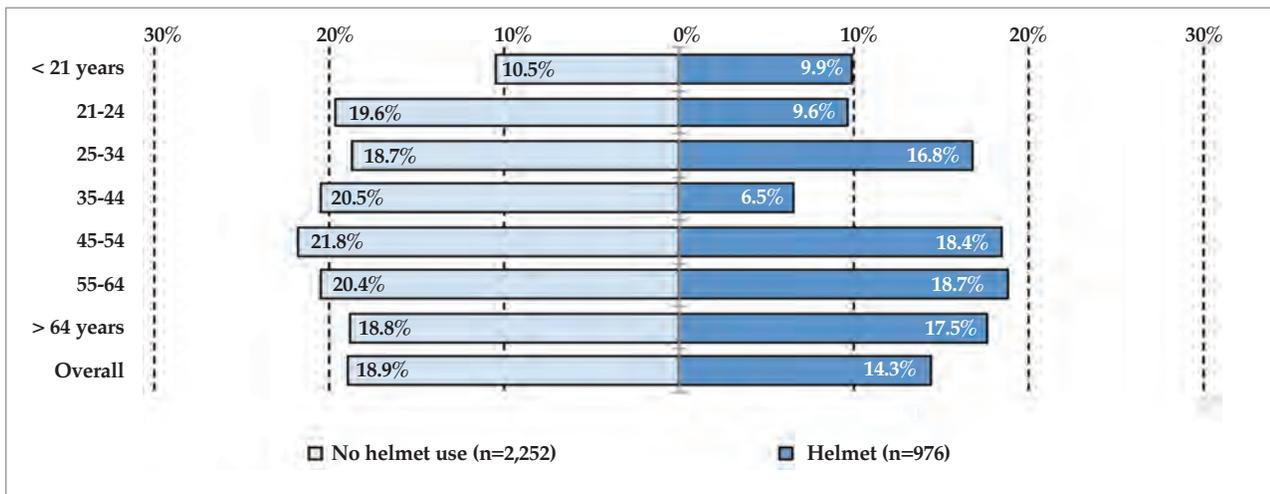


Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) Includes only cases where *helmet use* and *age* are known.
2) Includes only injuries reported as *fatal* or *incapacitating*.

**Table 5.9. Nature and location of injuries to motorcycle operators and passengers in collisions, by reported helmet use, 2014**

| Nature of injury | Location of injury | | | | | Total | Percent injuries by nature |
|---|---|---|---|---|---|---|---|
| | Neck and above | Arms | Entire body | Legs | Torso | | |
| **Total** | **698** | **542** | **260** | **678** | **272** | **2,450** | |
| **Helmet** | **80** | **207** | **75** | **233** | **91** | **686** | **100%** |
| Other injury | 34 | 128 | 42 | 146 | 65 | 415 | 60.5% |
| Fracture/dislocaton | 6 | 45 | 6 | 58 | 11 | 126 | 18.4% |
| Minor bleeding | 17 | 32 | 10 | 22 | 6 | 87 | 12.7% |
| Internal | 12 | 1 | 14 | 4 | 7 | 38 | 5.5% |
| Severe bleeding | 9 | 1 | 1 | 1 | 2 | 14 | 2.0% |
| None visible | 2 | 0 | 0 | 1 | 0 | 3 | 0.4% |
| Severed | 0 | 0 | 2 | 1 | 0 | 3 | 0.4% |
| *Percent injuries by location* | *30.2%* | *10.9%* | *34.0%* | *11.7%* | *13.3%* | *100%* | |
| **No helmet indicated** | **618** | **335** | **185** | **445** | **181** | **1,764** | **100%** |
| Other injury | 254 | 224 | 107 | 256 | 134 | 975 | 55.3% |
| Minor bleeding | 147 | 64 | 20 | 49 | 5 | 285 | 16.2% |
| Fracture/dislocaton | 40 | 43 | 18 | 117 | 17 | 235 | 13.3% |
| Internal | 90 | 2 | 29 | 6 | 20 | 147 | 8.3% |
| Severe bleeding | 78 | 0 | 5 | 12 | 2 | 97 | 5.5% |
| None visible | 8 | 2 | 3 | 3 | 2 | 18 | 1.0% |
| Burns | 0 | 0 | 2 | 1 | 1 | 4 | 0.2% |
| Severed | 1 | 0 | 1 | 1 | 0 | 3 | 0.2% |
| *Percent injuries by location* | *35.0%* | *19.0%* | *10.5%* | *25.2%* | *10.3%* | *100%* | |

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) *Other injuries* include *abrasion, complaint of pain, contusion/bruise,* and *other.*
2) *Burns* includes *minor burn* and *severe burn.*
3) *Location of injury:*
    a. *Torso* includes *abdomen/pelvis, back,* and *chest.*
    b. *Arms* includes *elbow/lower arm* and *shoulder/upper arm.*
    c. *Neck and above* includes *eye, face, head,* and *neck.*
    d. *Legs* includes *hip/upper leg* and *knee/lower leg/foot.*
4) Excludes individuals with no reported injury, unknown *nature of injury, location of injury,* or *helmet use.*

**Table 5.10.  Motorcyclist fatalities, by helmet use, nature, and location of injuries, 2014**

| Nature of injury | Location | | | | | Total | Percent by nature |
|---|---|---|---|---|---|---|---|
| | Neck and above | Entire body | Legs | Torso | Not reported | | |
| **No helmet** | **68** | **23** | **3** | **3** | **1** | **98** | **100%** |
| Internal | 34 | 12 | 1 | 3 | 0 | 50 | 51.0% |
| Severe bleeding | 17 | 2 | 1 | 0 | 0 | 20 | 20.4% |
| Fracture/dislocaton | 7 | 2 | 1 | 0 | 0 | 10 | 10.2% |
| Other injury | 4 | 6 | 0 | 0 | 0 | 10 | 10.2% |
| Not reported | 4 | 1 | 0 | 0 | 1 | 6 | 6.1% |
| Minor bleeding | 1 | 0 | 0 | 0 | 0 | 1 | 1.0% |
| None visible | 1 | 0 | 0 | 0 | 0 | 1 | 1.0% |
| **Helmet** | **9** | **14** | **0** | **4** | **0** | **27** | **100%** |
| Internal | 4 | 9 | 0 | 2 | 0 | 15 | 55.6% |
| Not reported | 0 | 2 | 0 | 1 | 0 | 3 | 11.1% |
| Fracture/dislocaton | 3 | 0 | 0 | 0 | 0 | 3 | 11.1% |
| Severe bleeding | 2 | 0 | 0 | 1 | 0 | 3 | 11.1% |
| Other injury | 0 | 2 | 0 | 0 | 0 | 2 | 7.4% |
| Severed | 0 | 1 | 0 | 0 | 0 | 1 | 3.7% |
| **Total** | **77** | **37** | **3** | **7** | **1** | **125** | |
| **Percent by location** | | | | | | | |
| No helmet | 69.4% | 23.5% | 3.1% | 3.1% | 1.0% | 100% | |
| Helmet | 33.3% | 51.9% | 0.0% | 14.8% | 0.0% | 100% | |

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) *Other injury* includes *abrasion, complaint of pain, contusion/bruise,* and *other.*
2) *Burns* includes *minor burn* and *severe burn.*
3) *Location of injury* is defined as follows based on ARIES categories:
   a. *Torso* includes *abdomen/pelvis, back,* and *chest.*
   b. *Arms* includes *elbow/lower arm* and *shoulder/upper arm.*
   c. *Neck* and *above* includes *eye, face, head,* and *neck.*
   d. *Legs* includes *hip/upper leg* and *knee/lower leg/foot.*
4) *No helmet indicated* includes *null* and *unknown* safety equipment types.

# CHAPTER 6
# PEOPLE

# PEOPLE, 2014

The tables and figures in this section detail individual involvement (i.e., *drivers, injured occupants, pedestrians, pedalcyclists,* and *animal-drawn vehicle operators*) in collisions by age, gender, type of injury, license type, non-motorist action, and restraint use between 2010 and 2014. Both single-year and 5-year comparisons are presented.

## Person Type

In 2014, 314,664 of the 329,794 individuals involved in Indiana collisions were drivers of motorized vehicles. During that same year, 926 *pedalcyclists* and 1,775 *pedestrians* were involved in collisions. Total numbers of all individuals involved in collisions increased from 2013 to 2014. However, the number of *pedalcyclists* involved decreased by 10 percent between 2013 and 2014 (Table 6.1).

Generally, the number of individuals injured in Indiana collisions decreased between 2010 and 2014. The annual rate of change of collision involvement between 2010 and 2014 decreased the most for *pedalcyclists* (5 percent decrease). The largest numbers of individuals injured were *drivers* and *injured occupants.* While slightly increasing between 2013 and 2014, the numbers of drivers and injured occupants remained fairly stable over the previous five years (Table 6.2). The numbers of pedestrians killed or incapacitated increased substantially between 2010 and 2014.

## Drivers by License Type and License Status

In 2014, more than 80 percent of *drivers* involved in Indiana collisions had a valid driver's license (not shown in table). Among license types, motorcyclists were the most likely to be killed in a collision (9.6 per 1,000). In terms of license status, approximately 10 percent of *drivers* killed had previous or current infractions. Habitual traffic violators had the highest fatality rate (Tables 6.3 and 6.4).

## Non-motorists

Between one and two percent of *pedalcyclists* involved in collisions were killed between 2010 and 2014. The number of *pedalcyclists* involved in collisions was at a five year low in 2014. *Pedestrians* involved in Indiana collisions ranged from 1,686 to 1,812 during the time period. The highest percentage of collision-related *pedestrian* fatalities occurred in 2014 (Figure 6.1). Of the age groups illustrated in Figure 6.2, more *pedalcyclists* and *pedestrians* ages 15 to 24 were involved in Indiana collisions in 2014 than in any other age group.

The most common action of *pedestrians* and *pedalcyclists* involved in 2014 collisions was *crossing at intersection* (Tables 6.5 and 6.6). Riding *against traffic* and *on roadway* were also common *pedalcyclist* behaviors that resulted in a collision. In addition, *crossing not at intersection* and walking on a *roadway* were common actions of *pedestrians* resulting in traffic collisions in 2014. *Pedalcyclists* and *pedestrians* generally were more likely to be involved in collisions during the hours of 3pm and 6pm and on weekdays (Table 6.7).

## Restraint Use

The overall restraint use by individuals involved in Indiana collisions in passenger vehicles has remained constant from 2010-2014 (91 percent). Only 47 percent of the 498 persons killed in passenger occupant vehicles during 2014 were properly restrained (Table 6.8). One-third or fewer vehicle *occupants* between the ages of 15 and 34 killed in collisions were properly restrained (Table 6.9). Only 32 percent of male pickup truck *occupants* killed were properly restrained, compared to 44 percent and 61 percent of males killed who were restrained in SUVs and vans, respectively (Table 6.10).

Among fatalities, unrestrained passenger vehicle *occupants* were more likely than restrained *occupants* to be *ejected* or *partially ejected* from a vehicle. Of those *occupants* who were killed in a collision and *not ejected* or *trapped*, 57 percent were restrained (Figure 6.3).

## Table 6.1. Individuals involved in Indiana collisions, by person type and gender, 2010-2014

| Person type/gender | Count of individuals | | | | | Annual rate of change | |
|---|---|---|---|---|---|---|---|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2013-14 | 2010-14 |
| **Driver** | **295,345** | **288,288** | **290,114** | **294,414** | **314,664** | **6.9%** | **1.6%** |
| Male | 164,781 | 159,993 | 160,578 | 163,253 | 176,873 | 8.3% | 1.8% |
| Female | 130,564 | 128,295 | 129,536 | 131,161 | 137,791 | 5.1% | 1.4% |
| **Injured occupant** | **13,096** | **12,226** | **12,638** | **12,219** | **12,318** | **0.8%** | **-1.5%** |
| Male | 4,994 | 4,707 | 4,802 | 4,700 | 4,717 | 0.4% | -1.4% |
| Female | 8,102 | 7,519 | 7,836 | 7,519 | 7,601 | 1.1% | -1.6% |
| **Pedalcyclist** | **1,049** | **959** | **1,117** | **1,032** | **926** | **-10.3%** | **-3.1%** |
| Male | 842 | 779 | 902 | 838 | 737 | -12.1% | -3.3% |
| Female | 207 | 180 | 215 | 194 | 189 | -2.6% | -2.2% |
| **Pedestrian** | **1,799** | **1,811** | **1,753** | **1,684** | **1,775** | **5.4%** | **-0.3%** |
| Male | 1,020 | 1,062 | 1,031 | 975 | 1,034 | 6.1% | 0.3% |
| Female | 779 | 749 | 722 | 709 | 741 | 4.5% | -1.2% |
| **Animal-drawn vehicle operator** | **77** | **100** | **101** | **108** | **111** | **2.8%** | **9.6%** |
| Male | 55 | 72 | 72 | 83 | 77 | -7.2% | 8.8% |
| Female | 22 | 28 | 29 | 25 | 34 | 36.0% | 11.5% |
| **All Individiuals** | **311,366** | **303,384** | **305,723** | **309,457** | **329,794** | **6.6%** | **1.4%** |
| Male | 171,692 | 166,613 | 167,385 | 169,849 | 183,438 | 8.0% | 1.7% |
| Female | 139,674 | 136,771 | 138,338 | 139,608 | 146,356 | 4.8% | 1.2% |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015
Note: Excludes unkown gender.

## Table 6.2. Individuals involved in Indiana collisions, by person type and injury status, 2010-2014

| Person type/injury status | Count of individuals | | | | | Annual rate of change | |
|---|---|---|---|---|---|---|---|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2013-14 | 2010-14 |
| **Driver** | **33,192** | **31,743** | **33,222** | **31,910** | **32,842** | **2.9%** | **-0.3%** |
| Fatal | 521 | 524 | 542 | 530 | 517 | -2.5% | -0.2% |
| Incapacitating | 2,273 | 2,364 | 2,601 | 2,389 | 3,731 | 56.2% | 13.2% |
| Non-incapacitating | 30,398 | 28,855 | 30,079 | 28,991 | 28,594 | -1.4% | -1.5% |
| **Injured occupant** | **12,747** | **11,882** | **12,316** | **11,890** | **11,976** | **0.7%** | **-1.5%** |
| Fatal | 157 | 146 | 160 | 167 | 137 | -18.0% | -3.3% |
| Incapacitating | 840 | 724 | 894 | 763 | 1,363 | 78.6% | 12.9% |
| Non-incapacitating | 11,750 | 11,012 | 11,262 | 10,960 | 10,476 | -4.4% | -2.8% |
| **Pedalcyclist** | **870** | **781** | **894** | **827** | **716** | **-13.4%** | **-4.8%** |
| Fatal | 14 | 13 | 14 | 15 | 13 | -13.3% | -1.8% |
| Incapacitating | 82 | 82 | 97 | 82 | 89 | 8.5% | 2.1% |
| Non-incapacitating | 774 | 686 | 783 | 730 | 614 | -15.9% | -5.6% |
| **Pedestrian** | **1,600** | **1,633** | **1,547** | **1,466** | **1,536** | **4.8%** | **-1.0%** |
| Fatal | 60 | 63 | 64 | 70 | 76 | 8.6% | 6.1% |
| Incapacitating | 252 | 240 | 222 | 205 | 303 | 47.8% | 4.7% |
| Non-incapacitating | 1,288 | 1,330 | 1,261 | 1,191 | 1,157 | -2.9% | -2.6% |
| **Animal-drawn vehicle operator** | **32** | **31** | **23** | **29** | **30** | **3.4%** | **-1.6%** |
| Fatal | 1 | 4 | 1 | 2 | 0 | -100.0% | -100.0% |
| Incapacitating | 2 | 4 | 2 | 2 | 7 | 250.0% | 36.8% |
| Non-incapacitating | 29 | 23 | 20 | 25 | 23 | -8.0% | -5.6% |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015
Note: *Non-incapacitating* includes injuries reported as *non-incapacitating* and *possible*.

## Table 6.3. Drivers involved in Indiana collisions, by license type and injury status, 2014

| License type | Fatal | % of total fatal | Incapa-citating | Non-incapac-itating | Unknown/ other | No injury | Total | Fatal per 1,000 overall total |
|---|---|---|---|---|---|---|---|---|
| | | | | Driver injury status | | | | |
| Operator | 374 | 72.8% | 3,087 | 24,950 | 1,692 | 245,164 | 275,267 | 1.4 |
| Commercial driver | 28 | 5.4% | 114 | 808 | 121 | 17,146 | 18,217 | 1.5 |
| Motorcycle | 66 | 12.8% | 248 | 1,119 | 39 | 5,387 | 6,859 | 9.6 |
| Chauffeur | 9 | 1.8% | 54 | 382 | 33 | 4,866 | 5,344 | 1.7 |
| No license | 24 | 4.7% | 145 | 808 | 38 | 3,896 | 4,911 | 4.9 |
| Learner permit | 9 | 1.8% | 53 | 355 | 23 | 2,186 | 2,626 | 3.4 |
| Probationary operator license | 0 | 0.0% | 1 | 13 | 1 | 82 | 97 | 0.0 |
| Unknown license type | 4 | 0.8% | 19 | 88 | 27 | 991 | 1,129 | 3.5 |
| **Total** | **514** | **100.0%** | **3,721** | **28,523** | **1,974** | **279,718** | **314,450** | **1.6** |

Source:  Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

**Notes:**
1) Includes drivers reported with ages ranging from 15 to 109.  Excludes unknown and invalid ages.
2) *Chauffeur* license type includes *chauffeur* and *public passenger chauffeur license.*
3) *Motorcycle* license type includes *motorcycle, chauffeur with MC endorsement, operators with MC endorsement,* and *public passenger chauffer with MC endorsement.*
4) *Learner permit* license type includes *learner permit, drivers education learner permit,* and *learner motorcycle.*
5) *Non-incapacitating injuries* include those reported as *non-incapacitating* and *possible* injuries.

## Table 6.4. Drivers involved in Indiana collisions, by license status and driver injury status, 2014

| License type | Fatal | % of total fatal | Incapa-citating | Non-incapac-itating | Unknown/ other | No injury | Total | Fatal per 1,000 overall total |
|---|---|---|---|---|---|---|---|---|
| | | | | Driver injury status | | | | |
| Valid | 387 | 75.3% | 2,888 | 23,450 | 1,600 | 234,234 | 262,559 | 1.5 |
| Unknown | 67 | 13.0% | 453 | 3,215 | 264 | 35,729 | 39,728 | 1.7 |
| Suspended - infraction | 24 | 4.7% | 155 | 815 | 45 | 4,631 | 5,670 | 4.2 |
| Suspended - prior | 19 | 3.7% | 105 | 562 | 44 | 2,754 | 3,484 | 5.5 |
| Unlicensed | 7 | 1.4% | 47 | 248 | 8 | 1,278 | 1,588 | 4.4 |
| Cancelled | 1 | 0.2% | 8 | 61 | 3 | 461 | 534 | 1.9 |
| Habitual traffic violator | 2 | 0.4% | 30 | 66 | 2 | 161 | 261 | 7.7 |
| Conditional | 0 | 0.0% | 4 | 20 | 3 | 193 | 220 | 0.0 |
| Habitual traffic violator - life | 6 | 1.2% | 25 | 55 | 3 | 104 | 193 | 31.1 |
| Suspended - misdemeanor | 1 | 0.2% | 4 | 22 | 2 | 74 | 103 | 9.7 |
| Invalid - revoked | 0 | 0.0% | 2 | 9 | 0 | 88 | 99 | 0.0 |
| Fraudulent | 0 | 0.0% | 0 | 0 | 0 | 11 | 11 | 0.0 |
| **Total** | **514** | **100.0%** | **3,721** | **28,523** | **1,974** | **279,718** | **314,450** | **1.6** |

Sources:  Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015; Indiana Bureau of Motor Vehicles (BMV) licensing data, current as of March 24, 2015

Note: Includes drivers reported with ages over 14.  Excludes unknown and invalid ages.

**Figure 6.1. Pedestrians and pedalcyclists involved in collisions, 2010-2014**
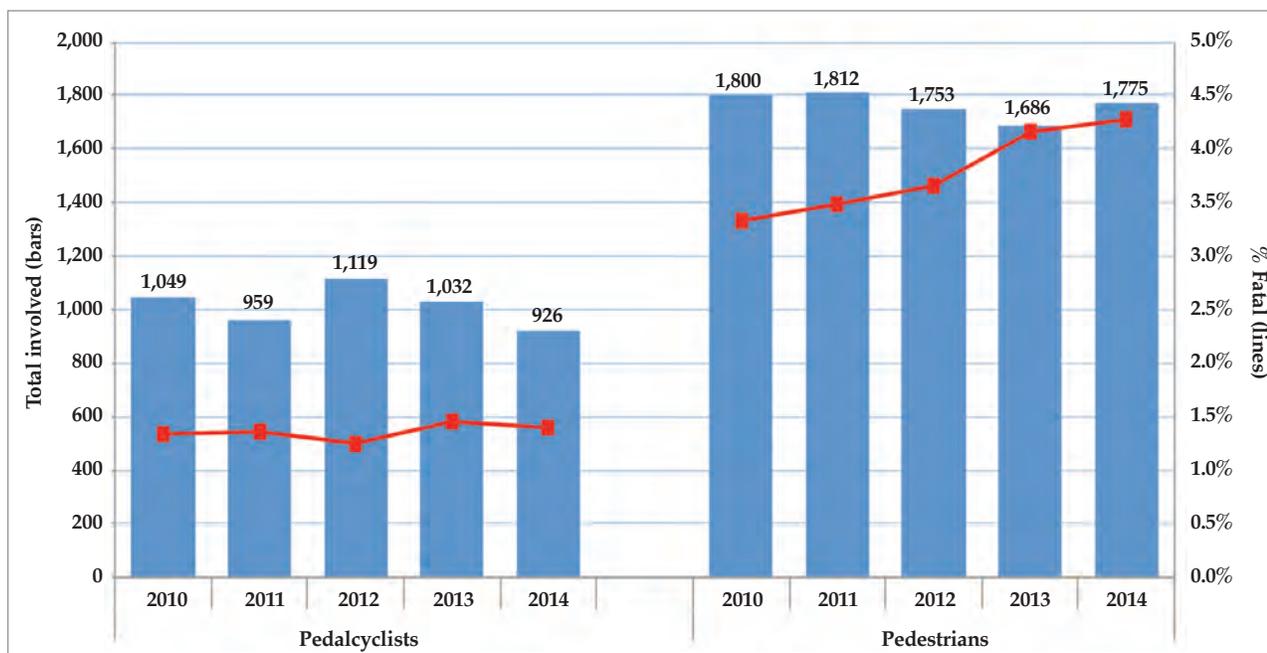


Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

**Figure 6.2. Pedalcyclists and pedestrians involved in Indiana collisions, by age, 2014**
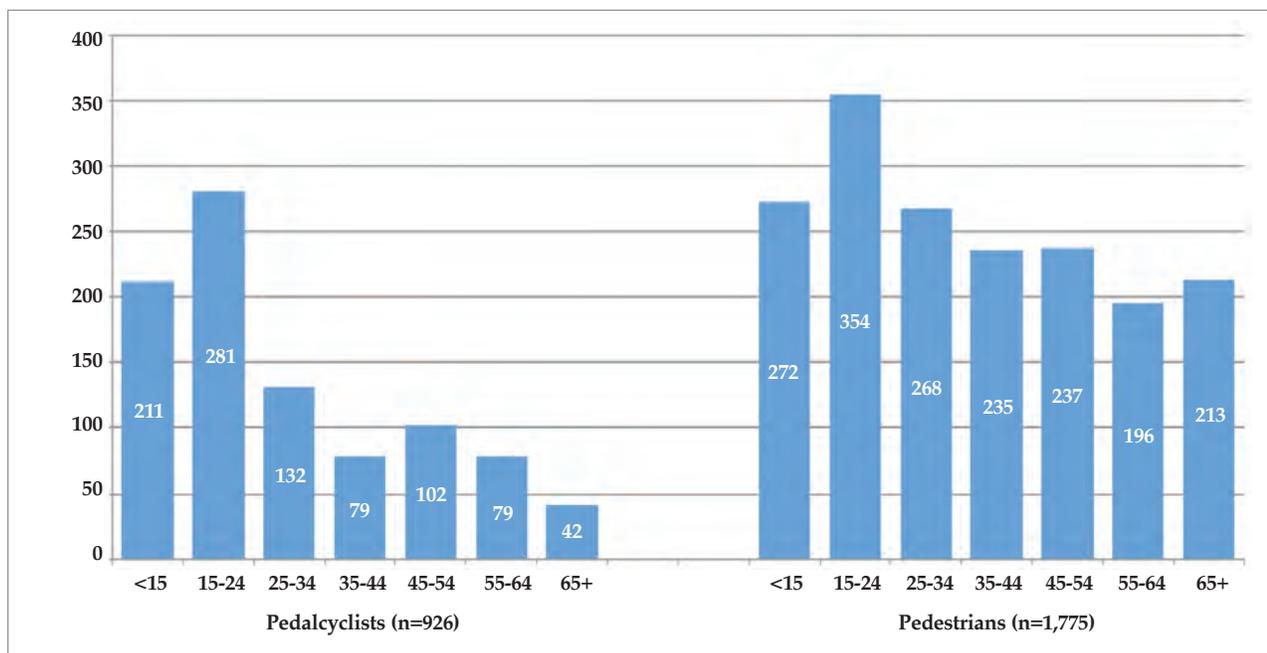


Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

**Table 6.5.  Pedalcyclists involved in Indiana collisions, by pedalcyclist action and injury status, 2014**

| Pedalcyclist action | Fatal | Non-fatal | Total involved | % Fatal |
|---|---|---|---|---|
| Crossing at intersection | 1 | 309 | 310 | 0.3% |
| Moving | 1 | 120 | 121 | 0.8% |
| On roadway | 5 | 106 | 111 | 4.5% |
| Against traffic | 0 | 72 | 72 | 0.0% |
| Unknown | 0 | 72 | 72 | 0.0% |
| Crossing not at intersection | 1 | 67 | 68 | 1.5% |
| With traffic | 4 | 52 | 56 | 7.1% |
| Other | 1 | 48 | 49 | 2.0% |
| Not in roadway | 0 | 30 | 30 | 0.0% |
| On designated non-motorist lane | 0 | 20 | 20 | 0.0% |
| On shoulder | 0 | 16 | 16 | 0.0% |
| Standing | 0 | 1 | 1 | 0.0% |
| **Total** | **13** | **913** | **926** | **1.4%** |

Source:  Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015
Note: *Non-fatal* includes injury status of *incapacitating, non-incapacitating, possible, refused (treatment), not reported,* and *unknown.*

**Table 6.6.  Pedestrians involved in Indiana collisions, by pedestrian action and injury status, 2014**

| Pedestrian action | Fatal | Non-fatal | Total involved | % Fatal |
|---|---|---|---|---|
| Crossing at intersection | 8 | 335 | 343 | 2.3% |
| Crossing not at intersection | 17 | 266 | 283 | 6.0% |
| On roadway | 30 | 235 | 265 | 11.3% |
| Other | 4 | 202 | 206 | 1.9% |
| Unknown | 4 | 154 | 158 | 2.5% |
| Not in roadway | 2 | 109 | 111 | 1.8% |
| Moving | 4 | 98 | 102 | 3.9% |
| Standing | 1 | 78 | 79 | 1.3% |
| On shoulder | 0 | 56 | 56 | 0.0% |
| Against traffic | 2 | 31 | 33 | 6.1% |
| On designated non-motorist lane | 0 | 33 | 33 | 0.0% |
| Getting in or out of vehicle | 0 | 38 | 38 | 0.0% |
| With traffic | 2 | 44 | 46 | 4.3% |
| Working | 2 | 14 | 16 | 12.5% |
| Getting off or on school bus | 0 | 6 | 6 | 0.0% |
| **Total** | **76** | **1,699** | **1,775** | **4.3%** |

Source:  Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015
Note: *Non-fatal* includes injury status of *incapacitating, non-incapacitating, possible, refused (treatment), not reported,* and *unknown.*

**Table 6.7. Pedestrians and pedalcyclists involved in Indiana collisions, by time of day and day of week, 2014**

| | Sun | Mon | Tues | Wed | Thur | Fri | Sat | Total by hour | % by hour |
|---|---|---|---|---|---|---|---|---|---|
| 12am- | 10 | 3 | 4 | 5 | 5 | 5 | 13 | 45 | 1.7% |
| 1am- | 5 | 0 | 0 | 3 | 1 | 1 | 9 | 19 | 0.7% |
| 2am- | 2 | 1 | 1 | 2 | 2 | 4 | 3 | 15 | 0.6% |
| 3am- | 16 | 1 | 3 | 2 | 2 | 2 | 5 | 31 | 1.1% |
| 4am- | 3 | 3 | 5 | 1 | 3 | 3 | 5 | 23 | 0.9% |
| 5am- | 2 | 1 | 10 | 3 | 5 | 8 | 1 | 30 | 1.1% |
| 6am- | 2 | 7 | 12 | 21 | 15 | 12 | 8 | 77 | 2.9% |
| 7am- | 3 | 19 | 30 | 17 | 20 | 29 | 4 | 122 | 4.5% |
| 8am- | 4 | 14 | 16 | 17 | 24 | 13 | 2 | 90 | 3.3% |
| 9am- | 4 | 10 | 6 | 11 | 16 | 10 | 10 | 67 | 2.5% |
| 10am- | 6 | 11 | 10 | 16 | 17 | 12 | 14 | 86 | 3.2% |
| 11am- | 9 | 16 | 11 | 24 | 20 | 23 | 16 | 119 | 4.4% |
| 12am- | 16 | 19 | 17 | 25 | 20 | 29 | 29 | 155 | 5.7% |
| 1pm- | 22 | 25 | 20 | 17 | 24 | 35 | 24 | 167 | 6.2% |
| 2pm- | 10 | 32 | 26 | 22 | 27 | 25 | 24 | 166 | 6.1% |
| 3pm- | 20 | 45 | 42 | 33 | 36 | 43 | 21 | 240 | 8.9% |
| 4pm- | 13 | 35 | 46 | 28 | 30 | 36 | 26 | 214 | 7.9% |
| 5pm- | 18 | 28 | 46 | 45 | 35 | 24 | 27 | 223 | 8.3% |
| 6pm- | 24 | 37 | 46 | 24 | 28 | 37 | 27 | 223 | 8.3% |
| 7pm- | 20 | 28 | 17 | 22 | 31 | 30 | 18 | 166 | 6.1% |
| 8pm- | 12 | 24 | 17 | 18 | 16 | 46 | 21 | 154 | 5.7% |
| 9pm- | 8 | 15 | 20 | 16 | 15 | 28 | 18 | 120 | 4.4% |
| 10pm- | 18 | 6 | 10 | 11 | 13 | 13 | 14 | 85 | 3.1% |
| 11pm- | 6 | 10 | 5 | 3 | 7 | 17 | 16 | 64 | 2.4% |
| **Total** | 253 | 390 | 420 | 386 | 412 | 485 | 355 | 2701 | 100% |
| **% by day** | 9% | 14% | 16% | 14% | 15% | 18% | 13% | 100% | |

Low        High

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Note: Color scale represents the highest and lowest numbers for the entire week.

### Table 6.8. Restraint use and injury status among passenger vehicle occupants in Indiana collisions, 2010-2014

| Passenger vehicle occupant injuries | 2010 | 2011 | 2012 | 2013 | 2014 | Annual rate of change 2013-14 | 2010-14 |
|---|---|---|---|---|---|---|---|
| **All occupants** | **289,536** | **280,923** | **283,450** | **287,745** | **304,345** | **5.8%** | **1.3%** |
| properly restrained | 262,791 | 254,550 | 256,870 | 260,786 | 278,123 | 6.6% | 1.4% |
| *% restrained* | *90.8%* | *90.6%* | *90.6%* | *90.6%* | *91.4%* | *0.8%* | *0.2%* |
| **Fatalities** | **549** | **515** | **518** | **550** | **498** | **-9.5%** | **-2.4%** |
| properly restrained | 262 | 255 | 250 | 282 | 233 | -17.4% | -2.9% |
| *% restrained* | *47.7%* | *49.5%* | *48.3%* | *51.3%* | *46.8%* | *-8.7%* | *-0.5%* |
| **Incapacitating injuries** | **2,510** | **2,433** | **2,762** | **2,471** | **4,338** | **75.6%** | **14.7%** |
| properly restrained | 1,868 | 1,803 | 2,009 | 1,824 | 3,455 | 89.4% | 16.6% |
| *% restrained* | *74.4%* | *74.1%* | *72.7%* | *73.8%* | *79.6%* | *7.9%* | *1.7%* |
| **Non-incapacitating injuries** | **38,954** | **36,630** | **37,639** | **36,607** | **35,706** | **-2.5%** | **-2.2%** |
| properly restrained | 34,770 | 32,677 | 33,479 | 32,593 | 32,183 | -1.3% | -1.9% |
| *% restrained* | *89.3%* | *89.2%* | *88.9%* | *89.0%* | *90.1%* | *1.2%* | *0.2%* |
| **Other injuries** | **2,277** | **1,721** | **1,735** | **2,001** | **1,944** | **-2.8%** | **-3.9%** |
| properly restrained | 2,022 | 1,519 | 1,550 | 1,797 | 1,751 | -2.6% | -3.5% |
| *% restrained* | *88.8%* | *88.3%* | *89.3%* | *89.8%* | *90.1%* | *0.3%* | *0.4%* |
| **Not injured** | **245,246** | **239,624** | **240,796** | **246,116** | **261,859** | **6.4%** | **1.7%** |
| properly restrained | 223,869 | 218,296 | 219,582 | 224,290 | 240,501 | 7.2% | 1.8% |
| *% restrained* | *91.3%* | *91.1%* | *91.2%* | *91.1%* | *91.8%* | *0.8%* | *0.2%* |

Source: Indiana State Police Automated Reporting Information Exchange System, as of March 23, 2015
Notes:
1) Totals include individuals with 'NULL' and unknown restraint use.
2) *Passenger vehicles* are defined as *passenger cars, pickup trucks, SUVs,* and *vans.*

### Table 6.9. Vehicle occupants involved in Indiana collisions, by age, restraint use, and injury severity, 2014

| Age group | Fatal | Incapacitating | Non-incapacitating | Other injury | Not injured | Total |
|---|---|---|---|---|---|---|
| **All Occupants** | **550** | **4,719** | **37,550** | **2,096** | **279,400** | **324,315** |
| % restrained | 45.3% | 75.4% | 87.8% | 89.4% | 91.7% | 91.0% |
| **<15** | **14** | **239** | **2,598** | **42** | **540** | **3,433** |
| % restrained | 57.1% | 75.7% | 85.5% | 78.6% | 15.6% | 73.6% |
| **15 - 24** | **114** | **1,176** | **9,320** | **580** | **66,998** | **78,188** |
| % restrained | 32.5% | 70.9% | 84.8% | 89.0% | 91.6% | 90.4% |
| **25 - 34** | **105** | **929** | **7,138** | **441** | **56,763** | **65,376** |
| % restrained | 29.5% | 70.2% | 86.1% | 87.3% | 91.5% | 90.4% |
| **35 - 44** | **74** | **652** | **5,502** | **319** | **46,962** | **53,509** |
| % restrained | 50.0% | 75.0% | 87.6% | 88.1% | 92.1% | 91.3% |
| **45 - 54** | **84** | **649** | **5,173** | **296** | **43,708** | **49,910** |
| % restrained | 40.5% | 77.8% | 89.9% | 92.6% | 92.2% | 91.7% |
| **55 - 64** | **64** | **523** | **4,113** | **234** | **35,344** | **40,278** |
| % restrained | 62.5% | 82.2% | 92.2% | 91.5% | 92.2% | 92.1% |
| **65 - 74** | **49** | **332** | **2,304** | **123** | **18,675** | **21,483** |
| % restrained | 55.1% | 83.7% | 92.3% | 93.5% | 92.6% | 92.3% |
| **75 years and over** | **46** | **219** | **1,402** | **61** | **10,410** | **12,138** |
| % restrained | 76.1% | 86.8% | 93.0% | 90.2% | 91.6% | 91.6% |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015
Notes:
1) Includes only individuals with valid age.
2) Excludes unit types of *farm vehicles, motorcycles, mopeds, animal-drawn vehicles, bicycles,* and *pedestrians.*

**Table 6.10. Vehicle occupants killed or injured in Indiana collisions, by restraint use, vehicle type, and gender, 2014**

| Vehicle type | Fatal | | Non-fatal injury | | |
|---|---|---|---|---|---|
| | Male | Female | Male | Female | Total |
| **Total** | **363** | **162** | **19,479** | **23,926** | **43,930** |
| % restrained | 40.5% | 59.9% | 85.0% | 90.8% | 88.3% |
| **Buses** | **1** | **0** | **160** | **231** | **392** |
| % restrained | 0.0% | n/a | 16.3% | 20.3% | 18.6% |
| **Passenger car** | **200** | **117** | **11,934** | **17,044** | **29,295** |
| % restrained | 41.0% | 67.5% | 86.5% | 91.9% | 89.2% |
| **Pickup truck** | **74** | **17** | **3,122** | **1,207** | **4,420** |
| % restrained | 32.4% | 29.4% | 81.1% | 87.1% | 81.7% |
| **Sport utility vehicle** | **45** | **21** | **2,335** | **3,958** | **6,359** |
| % restrained | 44.4% | 38.1% | 87.3% | 91.4% | 89.4% |
| **Vans** | **18** | **6** | **998** | **1,371** | **2,393** |
| % restrained | 61.1% | 66.7% | 89.3% | 92.3% | 90.7% |
| **Large trucks** | **17** | **1** | **769** | **46** | **833** |
| % restrained | 58.8% | 100.0% | 87.9% | 87.0% | 87.3% |
| **Other vehicles** | **8** | **0** | **161** | **69** | **238** |
| % restrained | 0.0% | n/a | 49.1% | 52.2% | 48.3% |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) Excludes *farm vehicles, motorcycles, mopeds, animal-drawn vehicles, bicycles* and *pedestrians*. Also excludes individuals with unknown gender.
2) *Other vehicle* types consists of *unknown, combination vehicles,* and *motor homes/RVs.*
3) *Restraint use* includes the use of one of the following: *Lap belt only, Harness, Airbag deployed and harness, Child restraint,* or *Lap and harness.*
4) *Non-fatal injury* includes injury statuses of *incapacitating, non-incapacitating, possible, unknown, not reported, refused (treatment),* and *invalid injury* categories.

**Figure 6.3. Passenger vehicle fatalities in Indiana collisions, by ejection status and restraint use, 2014**
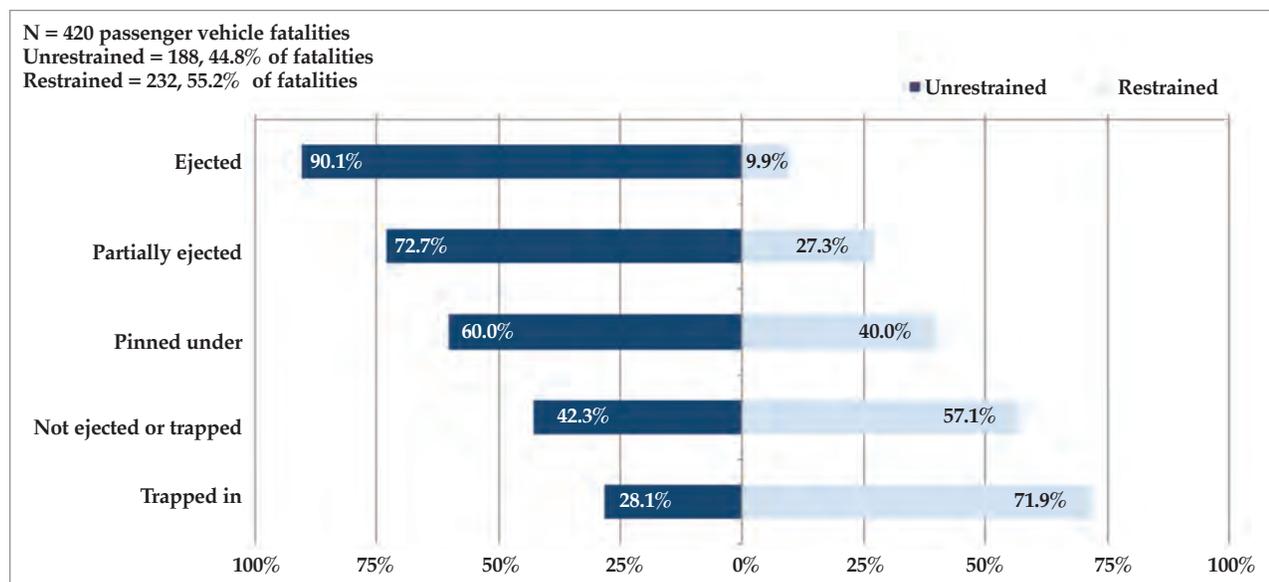
N = 420 passenger vehicle fatalities
Unrestrained = 188, 44.8% of fatalities
Restrained = 232, 55.2% of fatalities

■ Unrestrained    ■ Restrained

| | Unrestrained | Restrained |
|---|---|---|
| Ejected | 90.1% | 9.9% |
| Partially ejected | 72.7% | 27.3% |
| Pinned under | 60.0% | 40.0% |
| Not ejected or trapped | 42.3% | 57.1% |
| Trapped in | 28.1% | 71.9% |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) *Passenger vehicles* are defined as *passenger cars, pickup trucks, SUVs,* and *vans.*
2) Excludes unknown restraint use.
3) Excludes unknown ejection status.

# CHAPTER 7
# ALCOHOL

# ALCOHOL, 2014

In 2014, there were 94 fatal crashes and 101 fatalities (decreases from 2013 of 23 percent and 25 percent, respectively) involving a vehicle driver legally impaired by alcohol (i.e., blood alcohol content at or above 0.08 g/dL) (Table 7.1). During the 2010-2014 period, the numbers of persons killed in crashes involving alcohol-impaired drivers decreased 7 percent annually. Fatal collisions involving an alcohol-impaired driver decreased nearly 8 percent annually from 2010 to 2014 (Table 7.1).

## Impaired Driver Characteristics

In 2014, about 29 percent of impaired drivers in Indiana fatal traffic collisions were between the ages of 25 to 34, while 12 percent were 21 to 24 years old (calculated from Table 7.2). Male drivers are more likely than female drivers to have been alcohol-impaired in Indiana collisions (Table 7.3). For example, over 11 percent of male drivers aged 21 to 24 in fatal crashes were impaired compared to about 6 percent of female drivers in the same age range. Per 10,000 licensed drivers in 2014, both males and females aged 21 to 24 years had the highest rates of alcohol impairment in collisions (within respective gender categories) (Table 7.4). The rate of alcohol impairment in collisions among male drivers aged 21 to 24 was 40.3 per 10,000 licensed drivers compared to 13.2 among female drivers.

## Injuries by Person Type

Impaired drivers comprised 68 (67 percent) of the 101 fatalities in 2014 (calculated from Table 7.5). Among all persons killed in collisions involving alcohol-impairment in 2014, 19 percent were passengers of impaired drivers, and 8 percent were unimpaired drivers.

## Alcohol and Drug Testing

In 2014, 66 percent of all drivers involved in fatal crashes in Indiana were tested for alcohol consumption compared to only 17 percent of all drivers tested in incapacitating injury collisions (Table 7.6). Testing rates were generally higher for younger drivers; the group with the highest rate of testing included drivers between 25 and 34 who were in fatal collisions (73 percent), while the lowest rate (32 percent) in fatal collisions was for drivers 75 years and older (Table 7.6).

Among surviving drivers with reported results in 2014 fatal collisions, 8 percent of drivers were legally impaired; among drivers killed with reported BAC results, about 43 percent were legally impaired (Table 7.7). In 2014, among drivers

killed and for whom BAC results were reported, the likelihood of the results to show that drivers were impaired by alcohol was highest among those aged 45 to 54 (61 percent).

## Road Class and Census Locale

Comparing road classes, fatalities in crashes involving an impaired driver were most common on *local/city roads* and *county roads*. In 2014, 15 percent of all fatalities 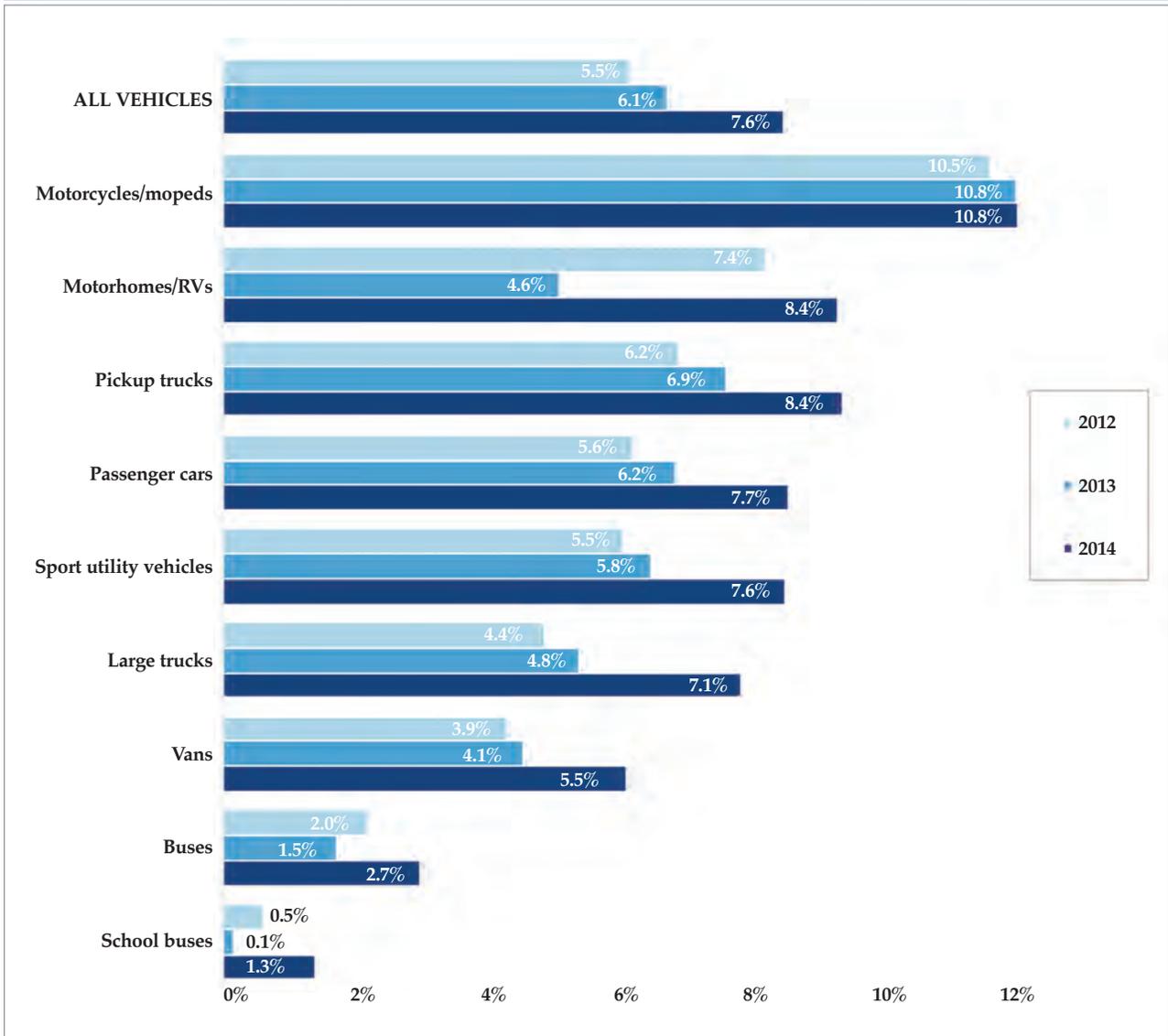on *local/city roads* involved an impaired driver (Table 7.8), while about 22 percent of fatalities on *county roads* involved impaired drivers. With the exception of *unknown* road class, incapacitating injuries linked to alcohol-impaired drivers were proportionally largest on county roads (8 percent). In addition, alcohol-impaired fatalities were most common in *urban areas* (42 percent, or 43 of 101 persons killed in alcohol-impaired collisions), followed by *suburban* areas (30 percent) (Figure 7.1 and Table 7.9).

## Month

Alcohol-impaired fatalities and injuries in Indiana vary by month (Figure 7.2). In 2014, the month of August had the highest count of fatalities from collisions involving alcohol-impaired drivers. The highest rate of fatalities from alcohol-impaired fatal collisions was also in August. The highest rate of non-fatal injuries from collisions involving alcohol-impaired drivers was in July.

## Single- and Multi-vehicle Collisions

Drivers involved in single-vehicle collisions are more likely to be impaired than drivers involved in multiple-vehicle collisions (Tables 7.10). In single-vehicle collisions in 2014, about four percent of all drivers were alcohol-impaired, compared to less than one percent of drivers in multiple-vehicle collisions. Among drivers killed in single-vehicle collisions, 20 percent were impaired, compared to an 8 percent impairment rate among drivers killed in multiple-vehicle crashes.

## Vehicle Type

Impairment rates vary by vehicle type (Table 7.11). In 2014, the highest impairment rates where vehicle type was known were among drivers killed in pickup trucks (17 percent), sport utility vehicles (16 percent), and by motorcycle operators (14 percent). Considering drivers or operators in all Indiana collisions in 2014, motorcycle operators had the highest rates of alcohol-impaired driving of any vehicle class (4 percent).

**Table 7.1.  Indiana collisions and injuries involving alcohol-impaired drivers, 2010-2014**

| Crash severity | Count of collisions and injuries | | | | | Annual rate of change | |
|---|---|---|---|---|---|---|---|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2013-14 | 2010-14 |
| **Collisions involving an alcohol-impaired driver** | | | | | | | |
| **Total collisions** | **5,005** | **4,961** | **5,198** | **4,794** | **4,574** | **-4.6%** | **-2.2%** |
| Fatal | 130 | 138 | 167 | 122 | 94 | -23.0% | -7.8% |
| Incapacitating | 217 | 186 | 211 | 201 | 246 | 22.4% | 3.2% |
| Non-incapacitating | 1,310 | 1,259 | 1,317 | 1,202 | 1,044 | -13.1% | -5.5% |
| Property damage | 3,348 | 3,378 | 3,503 | 3,269 | 3,190 | -2.4% | -1.2% |
| **Individuals in collisions involving an alcohol-impaired driver** | | | | | | | |
| **Total individuals** | **7,347** | **7,205** | **7,393** | **6,942** | **6,570** | **-5.4%** | **-2.8%** |
| Fatal | 135 | 145 | 177 | 134 | 101 | -24.6% | -7.0% |
| Incapacitating | 265 | 227 | 253 | 247 | 315 | 27.5% | 4.4% |
| Non-incapacitating | 1,931 | 1,872 | 1,899 | 1,836 | 1,565 | -14.8% | -5.1% |
| Not injured | 5,016 | 4,961 | 5,064 | 4,725 | 4,589 | -2.9% | -2.2% |

Source:  Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015
Note:  For *total individuals* injured, *non-incapacitating* includes *possible, +, not reported, refused,* and *unknown* injury status categories.

**Table 7.2.  Alcohol-impaired drivers in Indiana fatal collisions, by driver age, 2010-2014**

| Driver age | Count of drivers involved | | | | | Annual rate of change | |
|---|---|---|---|---|---|---|---|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2013-14 | 2010-14 |
| 15 to 20 | 10 | 10 | 12 | 6 | 4 | -33.3% | -20.5% |
| 21 to 24 | 24 | 21 | 27 | 27 | 11 | -59.3% | -17.7% |
| 25 to 34 | 29 | 36 | 48 | 37 | 28 | -24.3% | -0.9% |
| 35 to 44 | 33 | 35 | 38 | 27 | 18 | -33.3% | -14.1% |
| 45 to 54 | 28 | 24 | 28 | 13 | 22 | 69.2% | -5.9% |
| 55 and above | 9 | 14 | 16 | 13 | 12 | -7.7% | 7.5% |
| **Total** | **133** | **140** | **169** | **123** | **95** | **-22.8%** | **-8.1%** |

Source:  Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015
Note:  Excludes ages under 15 and over 109 years and cases with unknown or non-reported age.

### Table 7.3. Drivers in Indiana collisions, by age, gender, and alcohol impairment, 2014

| Driver age | Females Alcohol-impaired | Females Total involved | Females % impaired | Males Alcohol-impaired | Males Total involved | Males % impaired | All drivers Alcohol-impaired | All drivers Total involved | All drivers % impaired |
|---|---|---|---|---|---|---|---|---|---|
| **In fatal collisions** | **13** | **253** | **5.1%** | **82** | **857** | **9.6%** | **95** | **1,110** | **8.6%** |
| 15 to 20 | 0 | 20 | 0.0% | 4 | 68 | 5.9% | 4 | 88 | 4.5% |
| 21 to 24 | 2 | 34 | 5.9% | 9 | 80 | 11.3% | 11 | 114 | 9.6% |
| 25 to 34 | 4 | 46 | 8.7% | 24 | 175 | 13.7% | 28 | 221 | 12.7% |
| 35 to 44 | 4 | 42 | 9.5% | 14 | 142 | 9.9% | 18 | 184 | 9.8% |
| 45 to 54 | 3 | 44 | 6.8% | 19 | 183 | 10.4% | 22 | 227 | 9.7% |
| 55 to 64 | 0 | 30 | 0.0% | 9 | 107 | 8.4% | 9 | 137 | 6.6% |
| 65 to 74 | 0 | 22 | 0.0% | 3 | 61 | 4.9% | 3 | 83 | 3.6% |
| 75 and older | 0 | 15 | 0.0% | 0 | 41 | 0.0% | 0 | 56 | 0.0% |
| **In non-fatal collisions** | **1,132** | **137,386** | **0.8%** | **3,354** | **175,699** | **1.9%** | **4,486** | **313,085** | **1.4%** |
| 15 to 20 | 63 | 18,818 | 0.3% | 253 | 21,525 | 1.2% | 316 | 40,343 | 0.8% |
| 21 to 24 | 208 | 16,117 | 1.3% | 650 | 18,586 | 3.5% | 858 | 34,703 | 2.5% |
| 25 to 34 | 348 | 28,703 | 1.2% | 965 | 35,293 | 2.7% | 1,313 | 63,996 | 2.1% |
| 35 to 44 | 236 | 22,982 | 1.0% | 612 | 29,563 | 2.1% | 848 | 52,545 | 1.6% |
| 45 to 54 | 184 | 20,583 | 0.9% | 503 | 28,609 | 1.8% | 687 | 49,192 | 1.4% |
| 55 to 64 | 67 | 16,328 | 0.4% | 279 | 23,306 | 1.2% | 346 | 39,634 | 0.9% |
| 65 to 74 | 25 | 8,800 | 0.3% | 73 | 12,227 | 0.6% | 98 | 21,027 | 0.5% |
| 75 and older | 1 | 5,053 | 0.0% | 18 | 6,582 | 0.3% | 19 | 11,635 | 0.2% |
| Unknown age | 0 | 2 | 0.0% | 1 | 8 | 12.5% | 1 | 10 | 10.0% |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015
Notes:
1) Excludes ages under 15 and over 109 years and cases with unknown or non-reported age.
2) *All drivers* excludes cases where gender information was not reported.

### Table 7.4. Alcohol-impaired drivers involved in Indiana collisions and rate per 10,000 licensed, by age and gender, 2014

| Driver age | Females Alcohol-impaired | Females Total licensed | Females Rate per 10K licensed | Males Alcohol-impaired | Males Total licensed | Males Rate per 10K licensed | All drivers Alcohol-impaired | All drivers Total licensed | All drivers Rate per 10K licensed |
|---|---|---|---|---|---|---|---|---|---|
| 15 to 20 | 63 | 169,296 | 3.7 | 257 | 173,544 | 14.8 | 320 | 342,840 | 9.3 |
| 21 to 24 | 210 | 159,591 | 13.2 | 659 | 163,596 | 40.3 | 869 | 323,187 | 26.9 |
| 25 to 34 | 352 | 387,616 | 9.1 | 989 | 382,526 | 25.9 | 1341 | 770,142 | 17.4 |
| 35 to 44 | 240 | 373,390 | 6.4 | 626 | 366,378 | 17.1 | 866 | 739,768 | 11.7 |
| 45 to 54 | 187 | 410,547 | 4.6 | 522 | 399,565 | 13.1 | 709 | 810,112 | 8.8 |
| 55 to 64 | 67 | 402,530 | 1.7 | 288 | 384,519 | 7.5 | 355 | 787,049 | 4.5 |
| 65 to 74 | 25 | 265,418 | 0.9 | 76 | 241,821 | 3.1 | 101 | 507,239 | 2.0 |
| 75 and older | 1 | 162,724 | 0.1 | 18 | 134,774 | 1.3 | 19 | 297,498 | 0.6 |
| **All ages** | **1,145** | **2,331,112** | **4.9** | **3,435** | **2,246,723** | **15.3** | **4,580** | **4,577,835** | **10.0** |

Sources:
Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015;
Indiana Bureau of Motor Vehicles, as of April 2, 2014
Notes:
1) Due to changes in Indiana BMV-reported licensing counts obtained in 2013, rates should not be compared to previous years' exhibits.
2) Excludes ages under 15 and over 109 years and cases with unknown or non-reported age.
3) *All drivers* includes cases where gender information was not reported.

**Table 7.5.  Persons killed in Indiana collisions involving an alcohol-impaired driver, by person type, 2014**

| Person type | Individuals in alcohol-impaired collisions | | |
| | Killed | Survived | Total involved |
| --- | --- | --- | --- |
| Impaired drivers | 68 | 4,518 | 4,586 |
| Passengers of impaired drivers | 19 | 264 | 283 |
| Unimpaired drivers | 8 | 1,460 | 1,468 |
| Passengers of unimpaired drivers | 3 | 188 | 191 |
| Non-motorists (unimpaired) | 3 | 37 | 40 |
| Non-motorists (impaired) | 0 | 2 | 2 |
| **Total** | **101** | **6,469** | **6,570** |

Source:  Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

**Table 7.6.  Drivers in Indiana collisions that were tested for alcohol or other substances, by age and injury severity, 2014**

| | Driver injuries | | | | | |
| | Fatal | | | Incapacitating | | |
| Driver age | Tested | Total | Tested as % total | Tested | Total | Tested as % total |
| --- | --- | --- | --- | --- | --- | --- |
| 15 to 20 | 60 | 88 | 68.2% | 130 | 873 | 14.9% |
| 21 to 24 | 77 | 114 | 67.5% | 183 | 787 | 23.3% |
| 25 to 34 | 161 | 221 | 72.9% | 314 | 1,479 | 21.2% |
| 35 to 44 | 129 | 184 | 70.1% | 220 | 1,120 | 19.6% |
| 45 to 54 | 151 | 227 | 66.5% | 165 | 1,082 | 15.2% |
| 55 to 64 | 89 | 137 | 65.0% | 125 | 886 | 14.1% |
| 65 to 74 | 48 | 83 | 57.8% | 46 | 481 | 9.6% |
| 75 and older | 18 | 57 | 31.6% | 24 | 294 | 8.2% |
| **All ages** | **733** | **1,111** | **66.0%** | **1,207** | **7,002** | **17.2%** |

Source:  Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015
Notes:
1) *Tested* includes drivers for which ARIES reports an *alcohol, drug,* or *alcohol/drug* test was given.
2) Excludes ages under 15 and over 109 years and cases with unknown or non-reported age.

**Table 7.7. BAC results for drivers involved in Indiana fatal collisions, 2014**

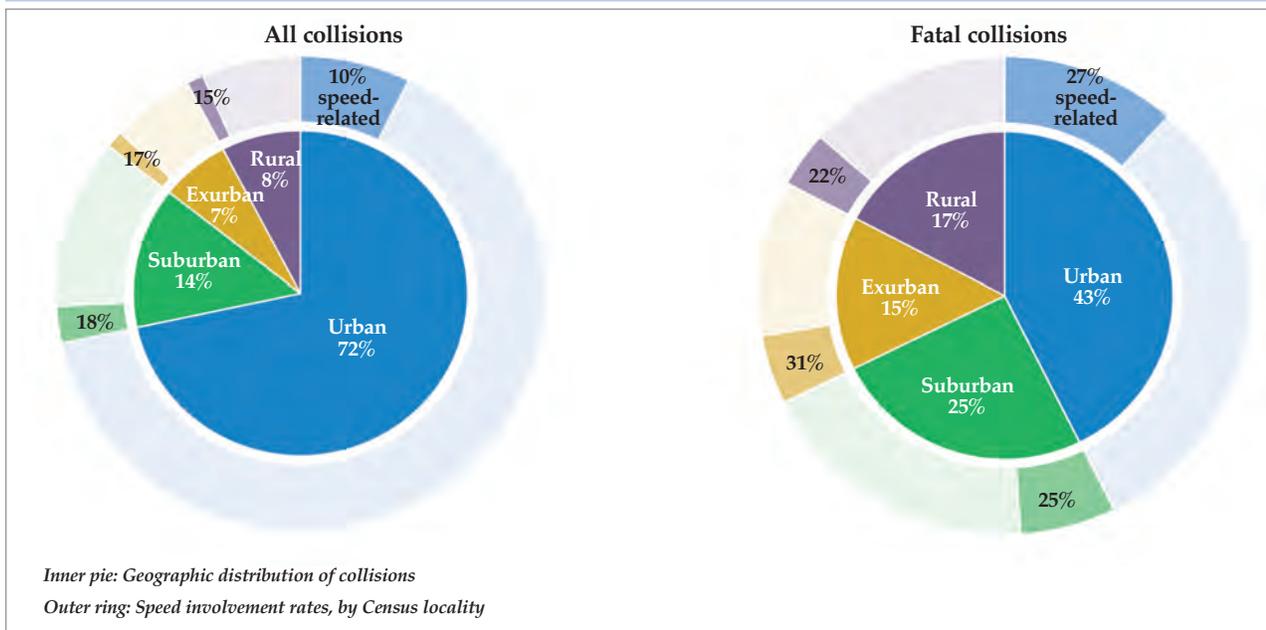| Driver Age | Count by BAC result (g/dL) | | | | Total | Reported (%) | 0.08 or more as % of | |
| | 0.00 | 0.01 < 0.08 | 0.08 or more | Not reported | | | Reported | Total |
|---|---|---|---|---|---|---|---|---|
| **Surviving** | **293** | **13** | **27** | **264** | **597** | **55.8%** | **8.1%** | **4.5%** |
| 15 to 20 | 21 | 1 | 4 | 28 | 54 | 48.1% | 15.4% | 7.4% |
| 21 to 24 | 26 | 2 | 5 | 29 | 62 | 53.2% | 15.2% | 8.1% |
| 25 to 34 | 59 | 2 | 8 | 53 | 122 | 56.6% | 11.6% | 6.6% |
| 35 to 44 | 53 | 2 | 6 | 47 | 108 | 56.5% | 9.8% | 5.6% |
| 45 to 54 | 64 | 4 | 3 | 53 | 124 | 57.3% | 4.2% | 2.4% |
| 55 to 64 | 46 | 1 | 0 | 23 | 70 | 67.1% | 0.0% | 0.0% |
| 65 to 74 | 17 | 0 | 1 | 17 | 35 | 51.4% | 5.6% | 2.9% |
| 75 and older | 7 | 1 | 0 | 14 | 22 | 36.4% | 0.0% | 0.0% |
| **Killed** | **87** | **4** | **68** | **355** | **514** | **30.9%** | **42.8%** | **13.2%** |
| 15 to 20 | 12 | 0 | 0 | 22 | 34 | 35.3% | 0.0% | 0.0% |
| 21 to 24 | 10 | 0 | 6 | 36 | 52 | 30.8% | 37.5% | 11.5% |
| 25 to 34 | 16 | 1 | 20 | 62 | 99 | 37.4% | 54.1% | 20.2% |
| 35 to 44 | 9 | 2 | 12 | 53 | 76 | 30.3% | 52.2% | 15.8% |
| 45 to 54 | 12 | 0 | 19 | 72 | 103 | 30.1% | 61.3% | 18.4% |
| 55 to 64 | 15 | 0 | 9 | 43 | 67 | 35.8% | 37.5% | 13.4% |
| 65 to 74 | 7 | 1 | 2 | 38 | 48 | 20.8% | 20.0% | 4.2% |
| 75 and older | 6 | 0 | 0 | 29 | 35 | 17.1% | 0.0% | 0.0% |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015
Note: Excludes ages under 15 and over 109 years and cases with unknown or non-reported age.

**Table 7.8. Indiana collisions and individual injuries in collisions involving an alcohol-impaired driver, by road class, 2014**

| Road class | Collisions | | | Individual injuries | | | | | | | | |
| | | | | Fatal | | | Incapacitating | | | Non-incapacitating | | |
| | Total | Impaired | Impaired as % all collisions in road class | Total | In impaired collisions | Impaired as % fatalities in road class | Total | In impaired collisions | Impaired as % incap injuries in road class | Total | In impaired collisions | Impaired as % non-incap injuries in road class |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Local/city roads | 92,126 | 2,095 | 2.3% | 210 | 31 | 14.8% | 2,013 | 125 | 6.2% | 21,001 | 687 | 3.3% |
| State roads | 28,585 | 554 | 1.9% | 190 | 18 | 9.5% | 1,192 | 43 | 3.6% | 7,356 | 229 | 3.1% |
| County roads | 25,336 | 877 | 3.5% | 143 | 31 | 21.7% | 813 | 65 | 8.0% | 4,661 | 307 | 6.6% |
| US routes | 21,781 | 370 | 1.7% | 107 | 12 | 11.2% | 771 | 36 | 4.7% | 5,339 | 176 | 3.3% |
| Interstates | 19,572 | 322 | 1.6% | 82 | 8 | 9.8% | 544 | 33 | 6.1% | 3,229 | 124 | 3.8% |
| Unknown | 18,132 | 356 | 2.0% | 11 | 1 | 9.1% | 160 | 13 | 8.1% | 1,440 | 42 | 2.9% |
| **All roads** | **205,532** | **4,574** | **2.2%** | **743** | **101** | **13.6%** | **5,493** | **315** | **5.7%** | **43,026** | **1,565** | **3.6%** |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015
Notes:
1) *Non-incapacitating* includes *possible*, *+*, *not reported*, *refused*, and *unknown* injury status categories.
2) *Unknown* includes not reported (Null).

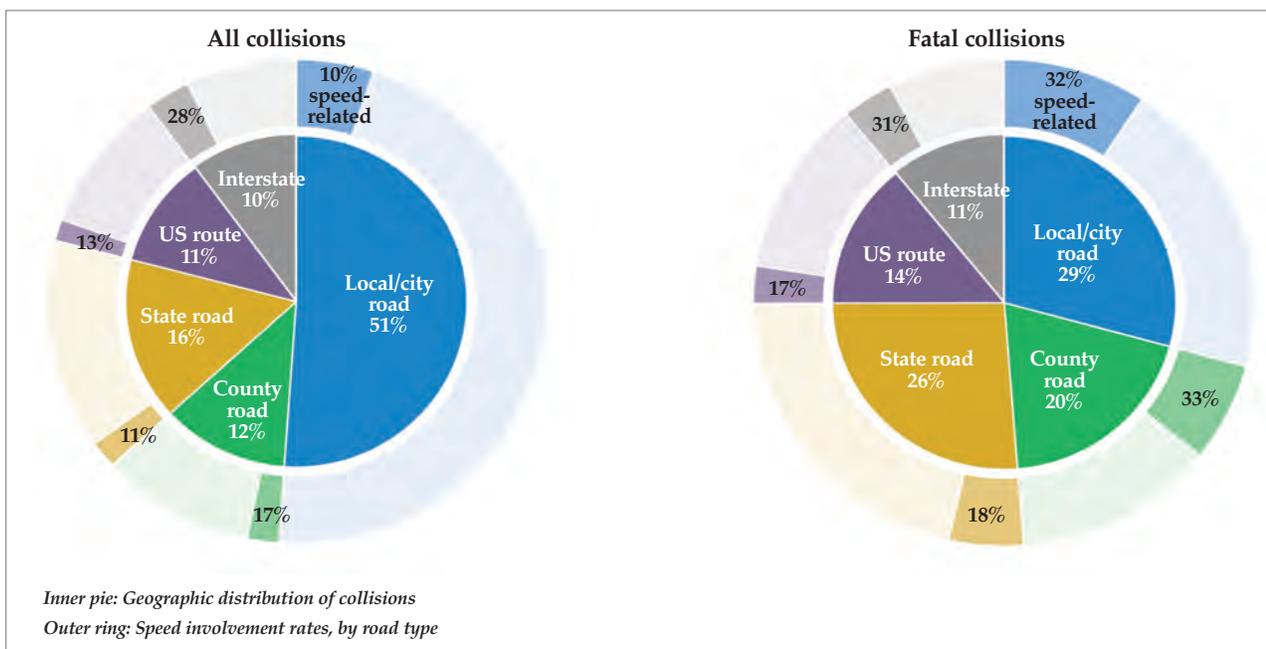**Figure 7.1. Fatalities in Indiana crashes involving an alcohol-impaired driver, by collision locality, 2014**
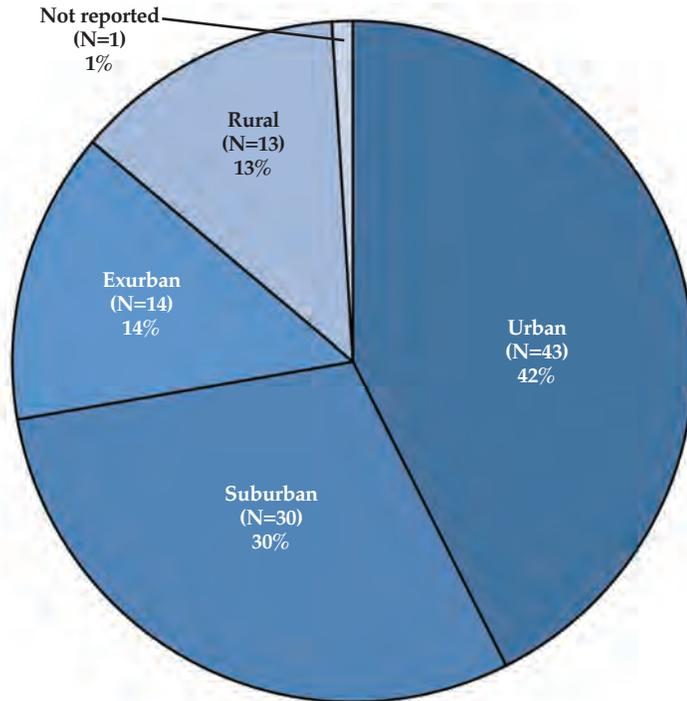


Source:  Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015
Note:  See glossary for definition of Census locality.

**Table 7.9.  Fatality rates in Indiana collisions involving an alcohol-impaired driver, by locality, 2014**

| Locality | All fatalities | Persons killed in impaired collisions | Impairment rate |
|---|---|---|---|
| Urban | 299 | 43 | 14.4% |
| Suburban | 179 | 30 | 16.8% |
| Exurban | 110 | 14 | 12.7% |
| Rural | 120 | 13 | 10.8% |
| Unknown | 35 | 1 | 2.9% |
| **Total** | **743** | **101** | **13.6%** |

Source:  Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015
Note: See glossary for definition of locality.

**Figure 7.2. Fatalities and injuries in collisions involving an alcohol-impaired driver, by month, 2014**
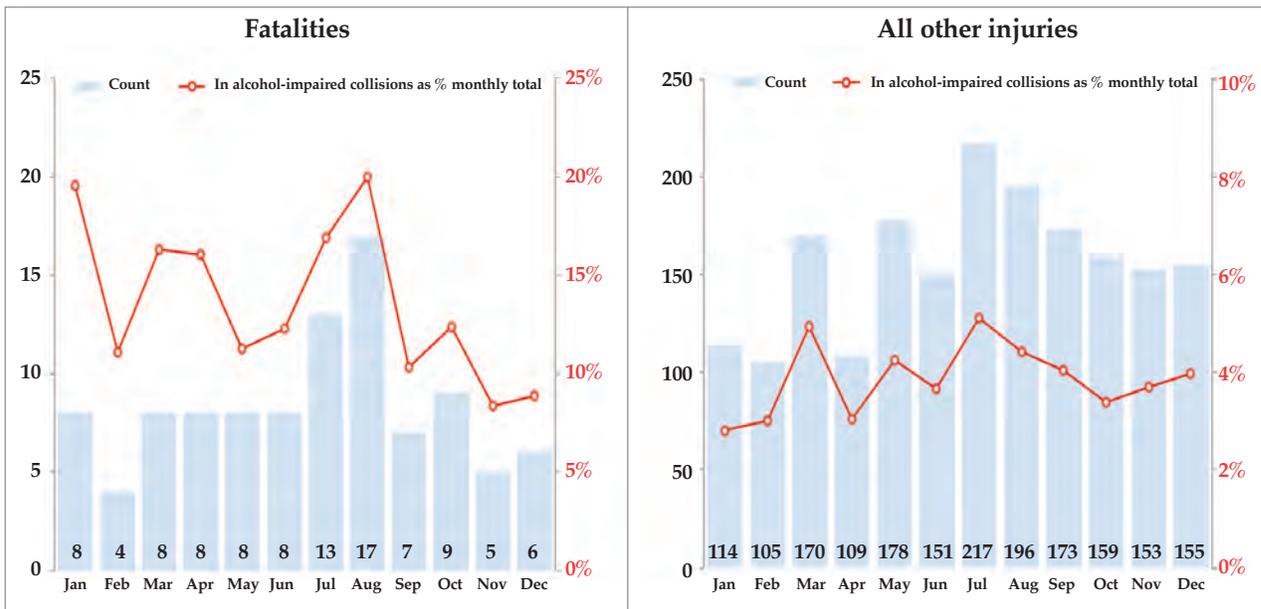


Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015
Note: *All other injuries* include *incapacitating, possible, +, not reported, refused,* and *unknown* injury status categories.

**Table 7.10. Drivers in Indiana collisions, by driver age, alcohol impairment, and number of vehicles involved, 2014**

| Driver age | Single-vehicle | | | Multiple-vehicle | | |
|---|---|---|---|---|---|---|
| | Alcohol-impaired | Total | % impaired | Alcohol-impaired | Total | % impaired |
| **All drivers** | **2,554** | **59,037** | **4.3%** | **2,027** | **255,690** | **0.8%** |
| 15 to 20 | 222 | 8,679 | 2.6% | 98 | 31,781 | 0.3% |
| 21 to 24 | 575 | 7,511 | 7.7% | 294 | 27,375 | 1.1% |
| 25 to 34 | 763 | 12,652 | 6.0% | 578 | 51,603 | 1.1% |
| 35 to 44 | 462 | 9,855 | 4.7% | 404 | 42,898 | 0.9% |
| 45 to 54 | 333 | 8,954 | 3.7% | 376 | 40,475 | 0.9% |
| 55 to 64 | 143 | 6,834 | 2.1% | 212 | 32,976 | 0.6% |
| 65 to 74 | 50 | 3,046 | 1.6% | 51 | 18,071 | 0.3% |
| 75 and older | 5 | 1,488 | 0.3% | 14 | 10,252 | 0.1% |
| Unknown | 1 | 18 | 5.6% | 0 | 259 | 0.0% |
| **Drivers killed** | **46** | **227** | **20.3%** | **22** | **287** | **7.7%** |
| 15 to 20 | 0 | 16 | 0.0% | 0 | 18 | 0.0% |
| 21 to 24 | 5 | 30 | 16.7% | 1 | 22 | 4.5% |
| 25 to 34 | 13 | 56 | 23.2% | 7 | 43 | 16.3% |
| 35 to 44 | 8 | 30 | 26.7% | 4 | 46 | 8.7% |
| 45 to 54 | 15 | 43 | 34.9% | 4 | 60 | 6.7% |
| 55 to 64 | 5 | 25 | 20.0% | 4 | 42 | 9.5% |
| 65 to 74 | 0 | 17 | 0.0% | 2 | 31 | 6.5% |
| 75 and older | 0 | 10 | 0.0% | 0 | 25 | 0.0% |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015
Note: Excludes ages under 15 and over 109 years.

**Table 7.11. Drivers involved in Indiana crashes, by vehicle type, injury severity, and alcohol impairment, 2014**

| Vehicle type | Fatal | | | Incapacitating | | | Non-incapacitating | | | Not injured | | | All drivers | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Alcohol-impaired | Total involved | % impaired | Alcohol-impaired | Total involved | % impaired | Alcohol-impaired | Total involved | % impaired | Alcohol-impaired | Total involved | % impaired | Alcohol-impaired | Total involved | % impaired |
| Passenger cars | 28 | 236 | 11.9% | 99 | 2,177 | 4.5% | 480 | 19,379 | 2.5% | 2,243 | 174,437 | 1.3% | 2,850 | 196,229 | 1.5% |
| Sport utility vehicles | 8 | 51 | 15.7% | 23 | 449 | 5.1% | 128 | 4,174 | 3.1% | 421 | 38,995 | 1.1% | 580 | 43,669 | 1.3% |
| Pickup trucks | 13 | 77 | 16.9% | 28 | 372 | 7.5% | 142 | 2,901 | 4.9% | 639 | 34,783 | 1.8% | 822 | 38,133 | 2.2% |
| Vans | 2 | 19 | 10.5% | 3 | 118 | 2.5% | 22 | 1,415 | 1.6% | 111 | 13,483 | 0.8% | 138 | 15,035 | 0.9% |
| Large trucks | 0 | 13 | 0.0% | 0 | 89 | 0.0% | 4 | 647 | 0.6% | 19 | 13,875 | 0.1% | 23 | 14,624 | 0.2% |
| Motorcycles | 15 | 111 | 13.5% | 31 | 489 | 6.3% | 74 | 1,827 | 4.1% | 26 | 878 | 3.0% | 146 | 3,305 | 4.4% |
| Other vehicles | 1 | 5 | 20.0% | 1 | 14 | 7.1% | 4 | 123 | 3.3% | 12 | 2,805 | 0.4% | 18 | 2,947 | 0.6% |
| Unknown | 1 | 5 | 20.0% | 1 | 23 | 4.3% | 3 | 115 | 2.6% | 4 | 1,444 | 0.3% | 9 | 1,587 | 0.6% |
| **Total** | **68** | **517** | **13.2%** | **186** | **3,731** | **5.0%** | **857** | **30,581** | **2.8%** | **3,475** | **280,700** | **1.2%** | **4,586** | **315,529** | **1.5%** |

Source:  Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) Excludes *non-motorists* and *drivers of animal-drawn vehicles.*
2) *Non-incapacitating* includes *possible, +, not reported, refused,* and *unknown* injury status categories.
3) *Alcohol-impaired* includes drivers with BAC of 0.08 g/dL or higher.

# CHAPTER 8
# SPEED

# SPEED, 2014

A collision is defined as speed-related in Indiana ARIES data if any of the following conditions is met: *Unsafe speed* or *speed too fast for weather conditions* is listed as the primary or a contributing factor of the collision; or a vehicle driver is issued a speeding citation. In 2014, 24,810 speed-related collisions occurred in Indiana, 33 percent more than in 2013 (Figure 8.1).

From 2010 to 2014, speed-related collisions increased 8 percent annually (Table 8.1). Speed-related fatal collisions increased 7 percent annually during the same period. In 2014, 26 percent of all fatal collisions involved speeding, the same proportion as in 2013; collisions involving speeding were 1.7 times more likely to result in a fatality or incapacitating injury than collisions that did not.

## Speed-related Criteria

Twelve percent of all 2014 collisions were speed-related (Table 8.2). Considering the conditions used to define speed involvement, 8 percent (17,363) of all 2014 collisions involved *speeding too fast for weather conditions* and 4 percent (7,437) involved *unsafe speed.* One percent (2,554) of speed-related collisions in 2014 were linked to a *speed-related citation.*

## Fatalities and Injuries

There were 38,574 persons involved in speed-related collisions in 2014—12 percent of all individuals in collisions (Table 8.3). Of these, 201 were killed (27 percent of all fatalities), 1,050 were incapacitated (19 percent of all incapacitating injuries), and 6,149 suffered non-incapacitating injuries (15 percent of all non-incapacitating injuries). The rate of fatal injuries per 1,000 involved in speed-related collisions rose from 5.3 in 2010 to a five-year high of 7.7 in 2013, and declined to 5.2 in 2014 (Figure 8.2).

## Vehicle Type

In 2014, 8 percent of vehicles in collisions were speeding—a rate higher than 2012 and 2013 rates (Figure 8.3). Among vehicle types, motorcycles remained the most likely to have been speeding at the time of collision (11 percent in 2014). In 2014, 147 of every 1,000 occupants riding in speeding vehicles in collisions suffered an injury, compared to 96 of every 1,000 in vehicles not speeding (Figure 8.4).

## Speeding Driver Characteristics

As Table 8.4 illustrates, between 2010 and 2014, the relative proportion of speed-related crashes to all crashes decreases with increasing driver age. Among drivers involved in collisions, young males are the most likely to be speeding. In 2014, 14 percent of male drivers and 10 percent of female drivers in the 15- to 20-year old age group were speeding at the time of the colli-

sion. Only 3 percent of male drivers and 2 percent of female drivers in the 75 and over age group were reported to be speeding in collisions in 2014.

## Alcohol Involvement

Since 2010, in Indiana, the number of legally impaired drivers (i.e., blood alcohol content of 0.08 g/dL or higher) involved in speed-related collisions rose from 807 in 2010 to 904 in 2012 and fell to 838 in 2014 (Figure 8.5). The proportion of drivers involved in speed-related collisions that were also impaired at the time of collision increased from 4.6 in 2010 to 5.7 in 2012, and declined to a five-year low of 3.5 in 2014. Five percent of speeding drivers in the 21- to 24-year old age group were impaired in 2014. In contrast, only 2 percent of non-speeding drivers in the same age group were impaired (Table 8.5).

## Restraint Use

Restraint use rates among vehicle occupants involved in speed-related collisions increased annually between 2010 and 2014 across all injury categories (Table 8.6). The rate of restraint use among individuals involved in speed-related collisions decreases as the severity of injury increases. Among those who sustained no injuries in speed-related collisions in 2014, the rate of restraint use was 92 percent, while only 34 percent of individuals killed in speed-related collisions were restrained.

## Month, Day, and Time

Between 2010 and 2014, the winter months of December, January, and February had the highest incidence of speed-related collisions (Table 8.7). In 2014, with regard to time of day, the likelihood of speed involvement in collisions peaked during morning (8am-10am) hours, declined during late morning and afternoon hours, and then steadily increased from evening (around 6pm) into early morning (Table 8.8). Sunday, Saturday, and Thursday carried a higher probability of speed involvement.

## Census Locale and Road Type

The distribution of speed-related collisions varies by U.S. census locale (Figure 8.6). While the majority (72 percent) of total collisions in 2014 occurred in *urban* areas, fatal speed-related crashes were more common in *exurban* (31 percent) areas. Considering road classes, *county roads, state roads,* and *US routes* account for a disproportionate share of fatal collisions—relative to their share of total collisions (Figure 8.7). In 2014, 51 percent of total collisions occurred on *local/city roads* and 12 percent occurred on *county roads.* However, 29 percent of fatal collisions happened on *local/city roads* (32 percent were speed-related), compared to 20 percent on *county* roads (33 percent speed-related).

**Figure 8.1. Indiana speed-related collisions, 2010-2014**
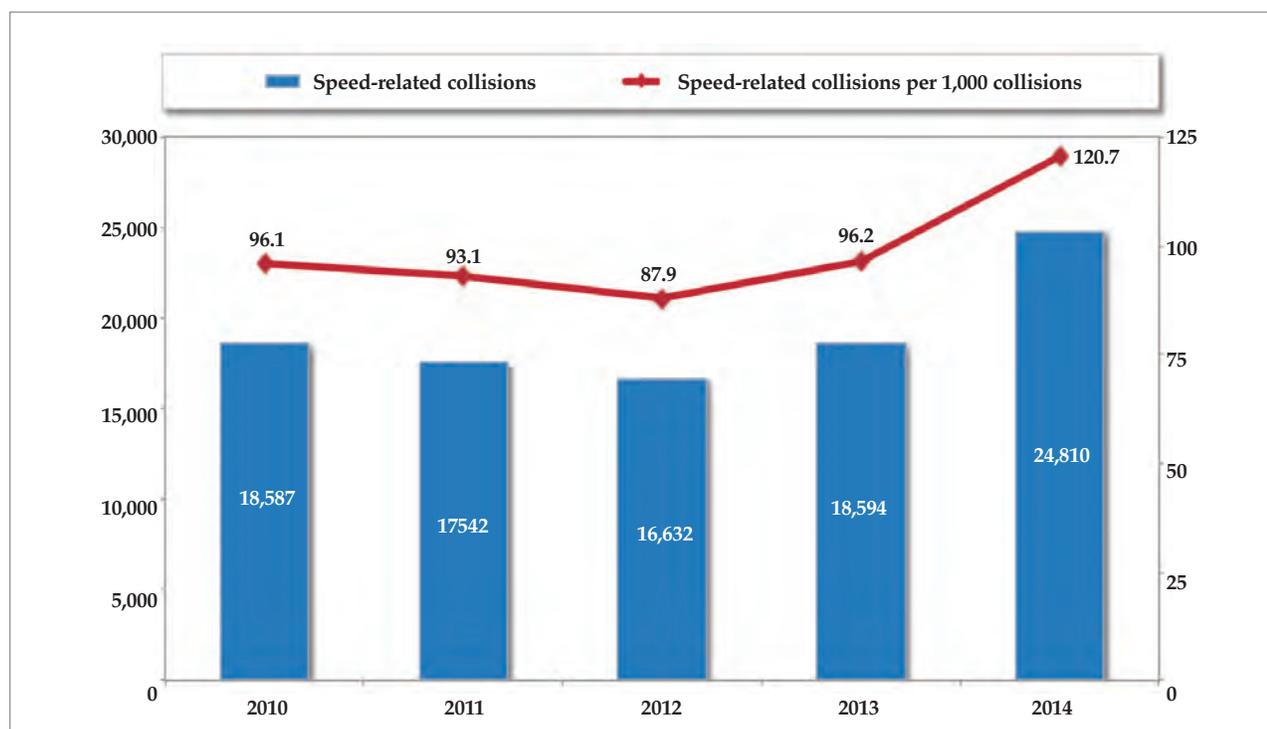


Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

**Table 8.1. Indiana collisions, by speed involvement and collision severity, 2010-2014**

| Speed involvement/collision severity | Count of collisions | | | | | Annual rate of change | |
|---|---|---|---|---|---|---|---|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2013-14 | 2010-14 |
| All collisions | 193,379 | 188,453 | 189,160 | 193,205 | 205,532 | 6.4% | 1.5% |
| Speed-related | 18,587 | 17,542 | 16,632 | 18,594 | 24,810 | 33.4% | 7.5% |
| Fatal | 139 | 132 | 163 | 185 | 184 | -0.5% | 7.3% |
| Incapacitating | 463 | 475 | 508 | 471 | 800 | 69.9% | 14.7% |
| Non-incapacitating | 3,691 | 3,636 | 3,551 | 3,791 | 4,321 | 14.0% | 4.0% |
| Property damage | 14,294 | 13,299 | 12,410 | 14,147 | 19,505 | 37.9% | 8.1% |
| Not speed-related | 174,792 | 170,911 | 172,528 | 174,611 | 180,722 | 3.5% | 0.8% |
| Fatal | 561 | 543 | 557 | 525 | 518 | -1.3% | -2.0% |
| Incapacitating | 2,456 | 2,391 | 2,732 | 2,466 | 3,618 | 46.7% | 10.2% |
| Non-incapacitating | 27,537 | 26,287 | 27,341 | 26,118 | 25,084 | -4.0% | -2.3% |
| Property damage | 144,238 | 141,690 | 141,898 | 145,502 | 151,502 | 4.1% | 1.2% |
| % Speed-related of all | 9.6% | 9.3% | 8.8% | 9.6% | 12.1% | 25.4% | 5.9% |
| Fatal | 19.9% | 19.6% | 22.6% | 26.1% | 26.2% | 0.6% | 7.2% |
| Incapacitating | 15.9% | 16.6% | 15.7% | 16.0% | 18.1% | 12.9% | 3.4% |
| Non-incapacitating | 11.8% | 12.2% | 11.5% | 12.7% | 14.7% | 15.9% | 5.6% |
| Property damage | 9.0% | 8.6% | 8.0% | 8.9% | 11.4% | 28.7% | 6.1% |
| Relative risk of fatal or incapacitating collision (when speed is a factor) | 1.9 | 2.0 | 2.1 | 2.1 | 1.7 | | |
| Lower limit | 1.7 | 1.8 | 1.9 | 1.8 | 1.6 | | |
| Upper limit | 2.1 | 2.3 | 2.4 | 2.3 | 1.9 | | |

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) *Non-incapacitating* collisions are those with no fatalities and at least one injury reported as *non-incapacitating* or *possible*.
2) *Relative risk of fatal* or *incapacitating collision* is the ratio of the percent of *speed-related* collisions with *fatal* or *incapacitating* injuries compared to the percent of not *speed-related* collisions with *fatal* or *incapacitating* injuries. Ratios greater than 1 indicate a higher risk of fatality or incapacitating injury for *speed-related* collisions.
3) All *relative risk* estimates are statistically significant (p<0.01). For example, in 99 out of 100 cases, the relative risk would fall within the lower and upper limit range presented.

## Table 8.2. Indiana collisions, by speed involvement, speed-related criteria, and collision severity, 2010-2014

| Speed involvement criteria/ Collision severity | Count of collisions | | | | | Annual rate of change | |
|---|---|---|---|---|---|---|---|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2013-14 | 2010-14 |
| **Total collisions** | **193,379** | **188,453** | **189,160** | **193,205** | **205,532** | **6.4%** | **1.5%** |
| Fatal | 700 | 675 | 720 | 710 | 702 | -1.1% | 0.1% |
| Non-fatal injury | 34,147 | 32,789 | 34,132 | 32,846 | 33,823 | 3.0% | -0.2% |
| Property damage | 158,532 | 154,989 | 154,308 | 159,649 | 171,007 | 7.1% | 1.9% |
| **All speed-related collisions** | **18,587** | **17,542** | **16,632** | **18,594** | **24,810** | **33.4%** | **7.5%** |
| Fatal | 139 | 132 | 163 | 185 | 184 | -0.5% | 7.3% |
| Non-fatal injury | 4,154 | 4,111 | 4,059 | 4,262 | 5,121 | 20.2% | 5.4% |
| Property damage | 14,294 | 13,299 | 12,410 | 14,147 | 19,505 | 37.9% | 8.1% |
| **Speed-related as % of total** | **9.6%** | **9.3%** | **8.8%** | **9.6%** | **12.1%** | **25.4%** | **5.9%** |
| Fatal | 19.9% | 19.6% | 22.6% | 26.1% | 26.2% | 0.6% | 7.2% |
| Non-fatal injury | 12.2% | 12.5% | 11.9% | 13.0% | 15.1% | 16.7% | 5.6% |
| Property damage | 9.0% | 8.6% | 8.0% | 8.9% | 11.4% | 28.7% | 6.1% |
| **Speed too fast for weather conditions** | **12,124** | **11,142** | **9,434** | **11,417** | **17,363** | **52.1%** | **9.4%** |
| Fatal | 26 | 25 | 27 | 38 | 40 | 5.3% | 11.4% |
| Non-fatal injury | 2,029 | 1,922 | 1,642 | 1,916 | 2,769 | 44.5% | 8.1% |
| Property damage | 10,069 | 9,195 | 7,765 | 9,463 | 14,554 | 53.8% | 9.6% |
| **Unsafe speed** | **6,157** | **6,115** | **6,756** | **6,846** | **7,437** | **8.6%** | **4.8%** |
| Fatal | 113 | 106 | 137 | 153 | 148 | -3.3% | 7.0% |
| Non-fatal injury | 1,989 | 2,074 | 2,271 | 2,210 | 2,303 | 4.2% | 3.7% |
| Property damage | 4,055 | 3,935 | 4,348 | 4,483 | 4,986 | 11.2% | 5.3% |
| **Speed-related citation** | **2,404** | **2,430** | **2,301** | **2,447** | **2,554** | **4.4%** | **1.5%** |
| Fatal | 12 | 7 | 9 | 11 | 9 | -18.2% | -6.9% |
| Non-fatal injury | 746 | 787 | 752 | 777 | 715 | -8.0% | -1.1% |
| Property damage | 1,646 | 1,636 | 1,540 | 1,659 | 1,830 | 10.3% | 2.7% |

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) *Non-fatal injury* collisions are those with no fatalities and at least one injury reported as *incapacitating, non-incapacitating,* or *possible*.
2) *Speed-related criteria* categories are not mutally exclusive. All *speed-related* collisions may not equal total of individual categories.

**Table 8.3. Individuals involved in Indiana collisions, by speed involvement and injury status, 2010-2014**

| Speed involvement/injury status | Count of individuals | | | | | % 2014 total | Annual rate of change | |
|---|---|---|---|---|---|---|---|---|
| | 2010 | 2011 | 2012 | 2013 | 2014 | | 2013-14 | 2010-14 |
| **All individuals** | 311,889 | 303,904 | 306,264 | 310,154 | 330,556 | 100.0% | 6.6% | 1.5% |
| **Speed-related** | 28,064 | 26,994 | 25,569 | 28,190 | 38,574 | 100.0% | 36.8% | 9.5% |
| Fatal | 148 | 151 | 175 | 216 | 201 | 0.5% | -6.9% | 8.6% |
| Incapacitating | 571 | 577 | 646 | 586 | 1,050 | 2.7% | 79.2% | 20.7% |
| Non-incapacitating | 5,420 | 5,276 | 5,146 | 5,484 | 6,149 | 15.9% | 12.1% | 3.4% |
| Other injury | 227 | 211 | 226 | 214 | 296 | 0.8% | 38.3% | 8.3% |
| Not injured | 21,698 | 20,779 | 19,376 | 21,690 | 30,878 | 80.0% | 42.4% | 10.8% |
| **Not speed-related** | 283,825 | 276,910 | 280,695 | 281,964 | 291,982 | 100.0% | 3.6% | 0.7% |
| Fatal | 604 | 595 | 605 | 566 | 542 | 0.2% | -4.2% | -2.6% |
| Incapacitating | 2,876 | 2,833 | 3,168 | 2,853 | 4,436 | 1.5% | 55.5% | 14.0% |
| Non-incapacitating | 38,790 | 36,607 | 38,239 | 36,388 | 34,692 | 11.9% | -4.7% | -2.7% |
| Other injury | 2,282 | 1,699 | 1,697 | 1,974 | 1,864 | 0.6% | -5.6% | -3.7% |
| Not injured | 239,273 | 235,176 | 236,986 | 240,183 | 250,448 | 85.8% | 4.3% | 1.2% |
| **% Speed-related** | 9.0% | 8.9% | 8.3% | 9.1% | 11.7% | - | 28.4% | 7.5% |
| Fatal | 19.7% | 20.2% | 22.4% | 27.6% | 27.1% | - | -2.1% | 8.7% |
| Incapacitating | 16.6% | 16.9% | 16.9% | 17.0% | 19.1% | - | 12.3% | 3.8% |
| Non-incapacitating | 12.3% | 12.6% | 11.9% | 13.1% | 15.1% | - | 15.0% | 5.6% |
| Other injury | 9.0% | 11.0% | 11.8% | 9.8% | 13.7% | - | 40.1% | 13.0% |
| Not injured | 8.3% | 8.1% | 7.6% | 8.3% | 11.0% | - | 32.5% | 8.2% |

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) Includes individuals identified as *drivers, injured occupants, pedestrians,* and *pedalcyclists. Animal-drawn vehicle* occupants are excluded.
2) Non-incapacitating includes non-incapacitating and possible injuries.
3) *Other injury* includes injuries reported as *refused, unknown,* and *not reported.*
4) *Not injured* status includes individuals involved in collisions reported as *null* values in the injury status code field. While reporting officers are instructed to enter all drivers in ARIES, passengers are only to be entered in the crash report if an injury occurs; therefore, not injured counts should be interpreted with caution.

**Figure 8.2. Indiana traffic fatalities in speed-related collisions, 2010-2014**
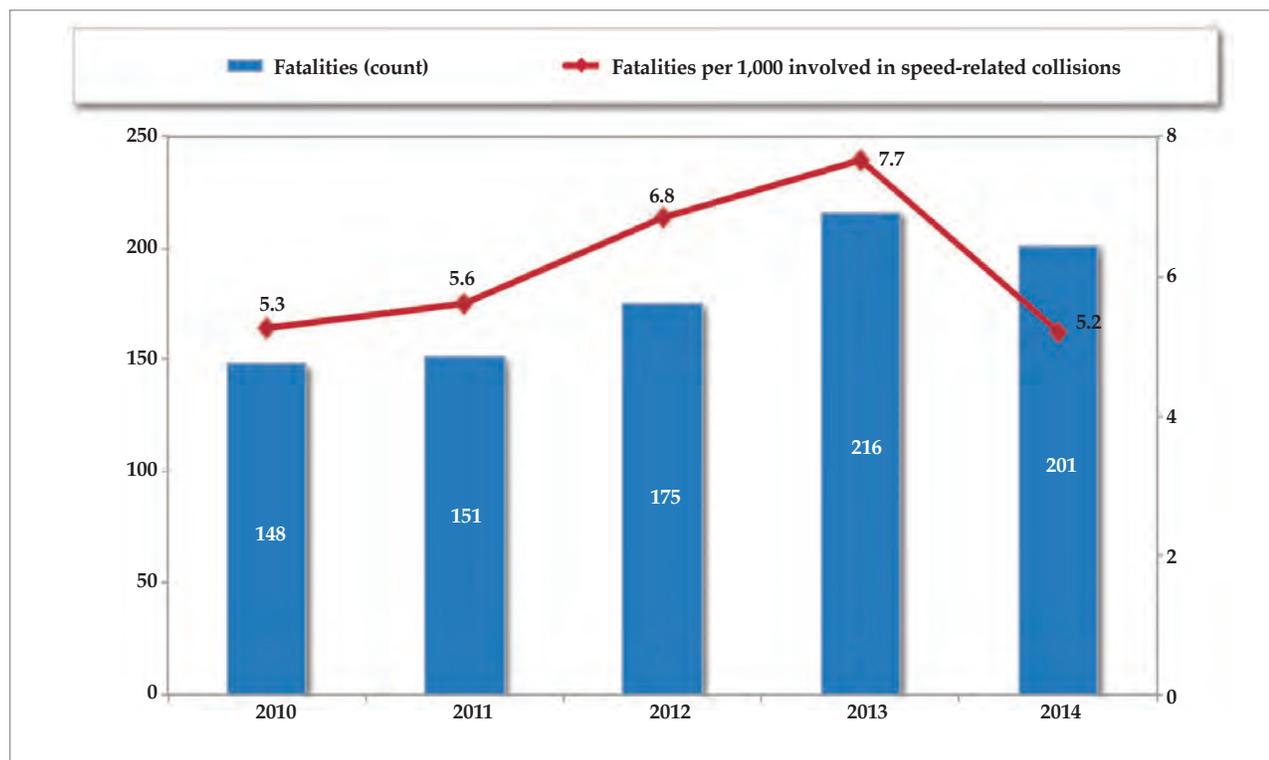


Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

**Figure 8.3. Vehicles speeding as a percent of all vehicles involved in Indiana collisions, by vehicle type, 2012-2014**



| Vehicle type | 2012 | 2013 | 2014 |
|---|---|---|---|
| ALL VEHICLES | 5.5% | 6.1% | 7.6% |
| Motorcycles/mopeds | 10.5% | 10.8% | 10.8% |
| Motorhomes/RVs | 7.4% | 4.6% | 8.4% |
| Pickup trucks | 6.2% | 6.9% | 8.4% |
| Passenger cars | 5.6% | 6.2% | 7.7% |
| Sport utility vehicles | 5.5% | 5.8% | 7.6% |
| Large trucks | 4.4% | 4.8% | 7.1% |
| Vans | 3.9% | 4.1% | 5.5% |
| Buses | 2.0% | 1.5% | 2.7% |
| School buses | 0.5% | 0.1% | 1.3% |

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

Note: Excludes vehicle types of *animal-drawn vehicle (non-motor vehicle)*, *farm vehicle*, *combination vehicle*, *pedestrian*, *bicycle*, and *unknown* type.

**Figure 8.4. Injury rates per 1,000 occupants involved in Indiana collisions, by vehicle unit type and speed involvement, 2014**
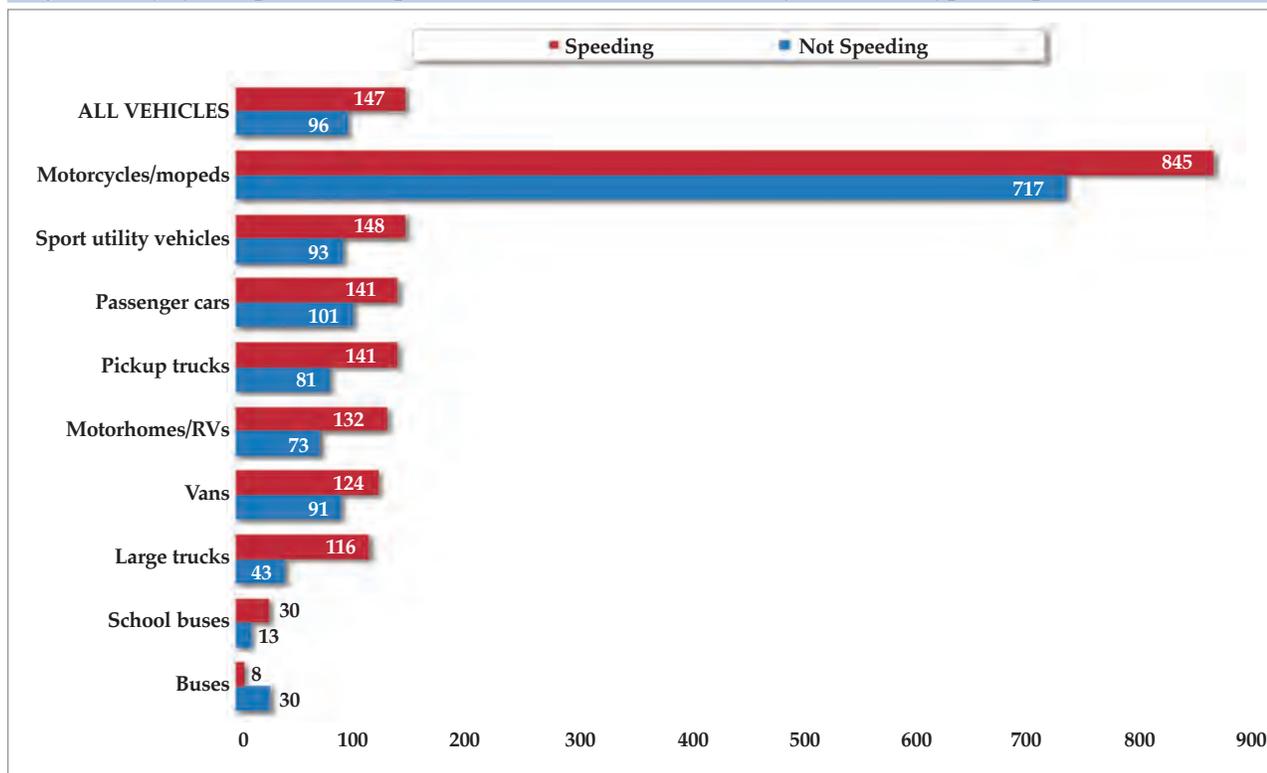


Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) Injury includes *fatal, incapacitating, non-incapacitating, possible,* and other injury types.
2) Excludes vehicle types of *animal-drawn vehicle (non-motor vehicle), farm vehicle, combination vehicle, pedestrian, bicycle,* and *unknown.*

**Table 8.4. Drivers speeding as a percent of all drivers involved in Indiana collisions, by age group and gender, 2010-2014**

| Age group | 2010 | | 2011 | | 2012 | | 2013 | | 2014 | | Annual rate of change, 2010-14 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Female | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female | Male |
| 15-20 | 8.1% | 12.2% | 8.1% | 11.9% | 7.3% | 12.2% | 8.9% | 12.4% | 9.8% | 14.0% | 4.7% | 3.4% |
| 21-24 | 6.7% | 9.9% | 6.9% | 10.2% | 5.9% | 9.4% | 7.6% | 10.4% | 9.5% | 12.7% | 9.2% | 6.4% |
| 25-34 | 5.5% | 8.0% | 5.6% | 7.5% | 4.7% | 7.5% | 5.5% | 8.5% | 7.5% | 10.8% | 8.1% | 7.8% |
| 35-44 | 4.6% | 5.7% | 4.5% | 5.6% | 3.9% | 5.4% | 4.5% | 5.7% | 5.7% | 7.6% | 5.6% | 7.2% |
| 45-54 | 3.3% | 4.8% | 3.5% | 4.7% | 3.4% | 4.3% | 3.3% | 4.5% | 4.9% | 6.2% | 10.4% | 6.9% |
| 55-64 | 2.7% | 3.8% | 2.5% | 3.5% | 2.5% | 3.5% | 2.6% | 3.7% | 3.7% | 5.2% | 7.6% | 8.4% |
| 65-74 | 1.9% | 2.9% | 1.9% | 2.7% | 2.0% | 2.8% | 2.1% | 2.8% | 2.4% | 3.8% | 5.5% | 7.3% |
| 75 + | 1.8% | 2.9% | 1.7% | 2.2% | 1.7% | 2.2% | 1.6% | 2.2% | 2.0% | 3.1% | 2.5% | 2.0% |
| All ages | 4.9% | 6.9% | 4.9% | 6.6% | 4.3% | 6.4% | 5.0% | 6.9% | 6.4% | 8.6% | 6.7% | 5.7% |
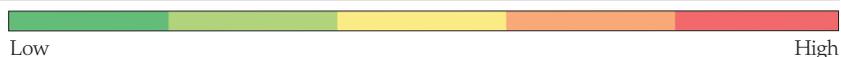
Low        High

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) Data limited to drivers with valid gender and age reported.
2) Excludes drivers under 15 years old.

**Figure 8.5. Drivers in vehicles that were speeding in Indiana collisions, by alcohol impairment, 2010-2014**
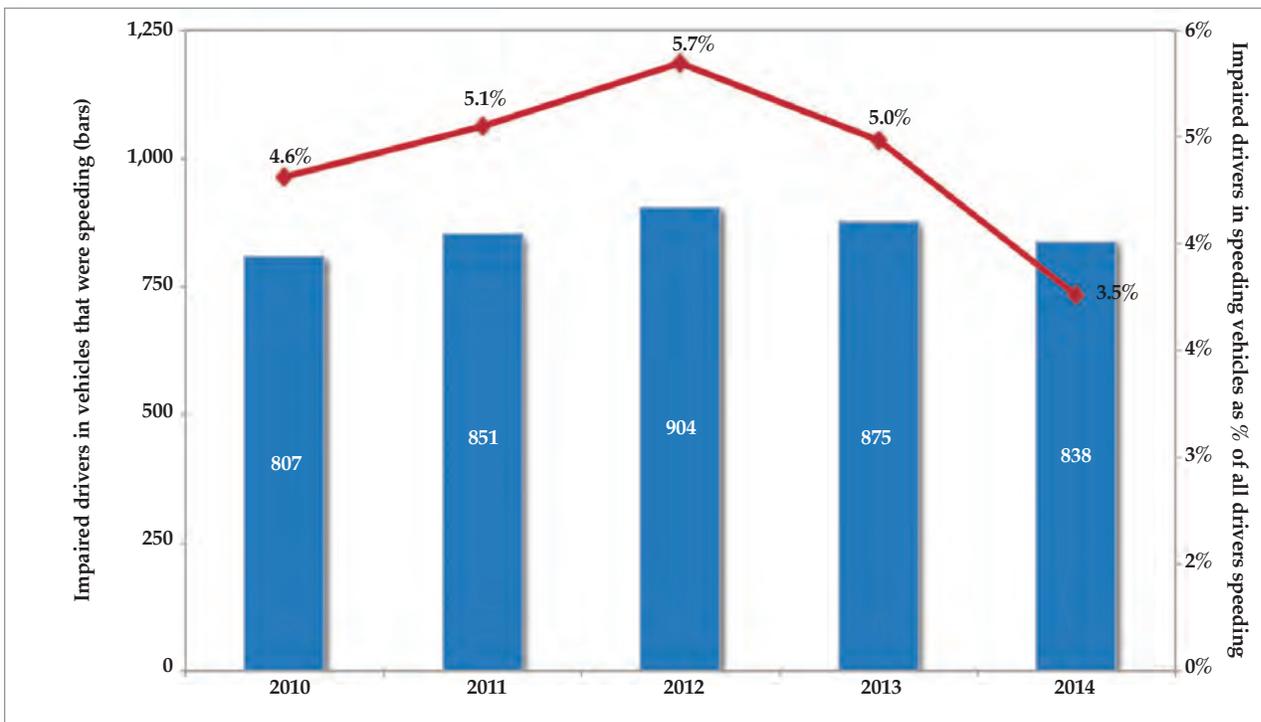


Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) *Alcohol-impaired* includes drivers with blood alcohol count (BAC) of 0.08 g/dL or higher.
2) When considering the reported decreases in 2014 *alcohol-impaired* drivers, it is important to note that these numbers are likely to increase once BAC results reported after the March 23, 2015, extract are analyzed.

**Table 8.5. Drivers involved in Indiana collisions, by age, speed involvement, and alcohol impairment, 2014**

| Age group | Not speeding | | | Speeding | | |
|---|---|---|---|---|---|---|
| | Non-impaired | Impaired | % Impaired | Non-impaired | Impaired | % Impaired |
| 15-20 | 35,368 | 235 | 0.7% | 4,772 | 85 | 1.8% |
| 21-24 | 30,289 | 675 | 2.2% | 3,728 | 194 | 4.9% |
| 25-34 | 57,201 | 1,085 | 1.9% | 5,713 | 256 | 4.3% |
| 35-44 | 48,475 | 710 | 1.4% | 3,412 | 156 | 4.4% |
| 45-54 | 46,020 | 611 | 1.3% | 2,700 | 98 | 3.5% |
| 55-64 | 37,672 | 317 | 0.8% | 1,783 | 38 | 2.1% |
| 65-74 | 20,345 | 92 | 0.5% | 671 | 9 | 1.3% |
| 75 + | 11,407 | 19 | 0.2% | 314 | 0 | 0.0% |
| **Total** | **286,777** | **3,744** | **1.3%** | **23,093** | **836** | **3.5%** |

Low      High

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) Excludes drivers with unknown age or age under 15 years.
2) *Alcohol-impaired* includes drivers with blood alcohol count (BAC) of 0.08 g/dL or higher.

## Table 8.6. Individuals in vehicles where driver was reported to be speeding, by restraint use and injury status, 2010-2014

| Vehicle occupant injuries in speed-related collisions | Count of collisions | | | | | Annual rate of change | |
|---|---|---|---|---|---|---|---|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2013-14 | 2010-14 |
| **All occupants** | **19,020** | **17,966** | **17,201** | **19,115** | **25,395** | **32.9%** | **7.5%** |
| Properly restrained | 16,446 | 15,457 | 14,561 | 16,443 | 22,561 | 37.2% | 8.2% |
| *Restraint use rate* | *86.5%* | *86.0%* | *84.7%* | *86.0%* | *88.8%* | *3.3%* | *0.7%* |
| **Fatalities** | **120** | **124** | **143** | **191** | **172** | **-9.9%** | **9.4%** |
| Properly restrained | 37 | 41 | 47 | 60 | 58 | -3.3% | 11.9% |
| *Restraint use rate* | *30.8%* | *33.1%* | *32.9%* | *31.4%* | *33.7%* | *7.3%* | *2.3%* |
| **Incapacitating injuries** | **435** | **447** | **485** | **463** | **770** | **66.3%** | **15.3%** |
| Properly restrained | 225 | 222 | 224 | 213 | 471 | 121.1% | 20.3% |
| *Restraint use rate* | *51.7%* | *49.7%* | *46.2%* | *46.0%* | *61.2%* | *33.0%* | *4.3%* |
| **Non-incapacitating injuries** | **3,621** | **3,479** | **3,438** | **3,676** | **3,957** | **7.6%** | **2.2%** |
| Properly restrained | 2,830 | 2,643 | 2,543 | 2,792 | 3,189 | 14.2% | 3.0% |
| *Restraint use rate* | *78.2%* | *76.0%* | *74.0%* | *76.0%* | *80.6%* | *6.1%* | *0.8%* |
| **Other injuries** | **122** | **121** | **133** | **128** | **164** | **28.1%** | **7.7%** |
| Properly restrained | 97 | 100 | 105 | 100 | 138 | 38.0% | 9.2% |
| *Restraint use rate* | *79.5%* | *82.6%* | *78.9%* | *78.1%* | *84.1%* | *7.7%* | *1.4%* |
| **Not injured** | **14,722** | **13,795** | **13,002** | **14,657** | **20,332** | **38.7%** | **8.4%** |
| Properly restrained | 13,257 | 12,451 | 11,642 | 13,278 | 18,705 | 40.9% | 9.0% |
| *Restraint use rate* | *90.0%* | *90.3%* | *89.5%* | *90.6%* | *92.0%* | *1.6%* | *0.5%* |

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) Counts are limited to *drivers* and *injured vehicle occupants* in vehicles where driver was reported to be speeding.
2) *Non-incapacitating* includes *non-incapacitating* and *possible* injuries.
3) *Other injury* includes injuries reported as *refused, unknown,* and *not reported.*
4) *Not injured* status includes individuals involved in collisions reported as *null* values in the injury status code field. While reporting officers are instructed to enter all drivers in ARIES, passengers are only to be entered in the crash report if an injury occurs; therefore, not injured counts should be interpreted with caution.

## Table 8.7. Total and speed-related traffic collisions, by month, 2010-2014

| Month | Total collisions | | | | | Speed-related collisions | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2010 | 2011 | 2012 | 2013 | 2014 |
| Jan | 17,072 | 18,848 | 17,446 | 15,487 | 23,532 | 3,144 | 4,438 | 3,619 | 2,233 | 7,683 |
| Feb | 17,413 | 16,257 | 14,177 | 14,258 | 19,371 | 3,720 | 3,083 | 1,812 | 2,295 | 4,323 |
| Mar | 13,397 | 12,755 | 14,598 | 15,949 | 15,514 | 693 | 818 | 1,063 | 2,410 | 2,165 |
| Apr | 14,183 | 13,716 | 13,891 | 14,038 | 14,192 | 727 | 841 | 777 | 891 | 926 |
| May | 15,422 | 15,149 | 15,985 | 16,325 | 15,904 | 894 | 922 | 896 | 935 | 871 |
| Jun | 15,475 | 14,846 | 15,142 | 15,267 | 15,364 | 852 | 834 | 756 | 918 | 931 |
| Jul | 15,068 | 14,232 | 14,457 | 15,017 | 14,912 | 838 | 726 | 820 | 883 | 824 |
| Aug | 14,954 | 15,010 | 15,511 | 15,502 | 15,636 | 718 | 787 | 912 | 822 | 1,032 |
| Sep | 14,954 | 15,165 | 14,889 | 15,765 | 15,716 | 738 | 1,039 | 935 | 890 | 888 |
| Oct | 17,048 | 17,312 | 17,656 | 17,640 | 18,805 | 836 | 959 | 1,243 | 1,203 | 1,312 |
| Nov | 17,292 | 18,452 | 16,615 | 18,449 | 19,336 | 1,076 | 1,512 | 727 | 1,420 | 2,235 |
| Dec | 21,101 | 16,711 | 18,793 | 19,508 | 17,250 | 4,351 | 1,583 | 3,072 | 3,694 | 1,620 |
| **Total** | 193,379 | 188,453 | 189,160 | 193,205 | 205,532 | 18,587 | 17,542 | 16,632 | 18,594 | 24,810 |
| *High* | *Dec* | *Jan* | *Dec* | *Dec* | *Jan* | *Dec* | *Jan* | *Jan* | *Dec* | *Jan* |
| *Low* | *Mar* | *Mar* | *Apr* | *Apr* | *Apr* | *Mar* | *Jul* | *Nov* | *Aug* | *Jul* |

Low ▬▬▬▬▬▬▬▬▬▬ High

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

Note: Color-scales are illustrated to show months from low to high for the entire 5-year period, 2010-2014.

**Table 8.8. Speed-related collisions as a percent of all Indiana collisions, by time of day and day of week, 2014**

| Time | Sun | Mon | Tue | Wed | Thu | Fri | Sat | % Speed-related by hour |
|---|---|---|---|---|---|---|---|---|
| 12am- | 16.4% | 12.8% | 13.9% | 15.1% | 13.8% | 10.6% | 12.9% | 13.8% |
| 1am- | 18.5% | 18.8% | 16.2% | 18.1% | 16.9% | 15.4% | 15.6% | 17.1% |
| 2am- | 18.8% | 16.8% | 15.1% | 17.7% | 16.8% | 18.8% | 17.8% | 17.7% |
| 3am- | 15.8% | 12.7% | 15.2% | 13.9% | 20.7% | 21.3% | 19.5% | 17.4% |
| 4am- | 15.2% | 16.3% | 18.5% | 18.0% | 15.2% | 15.5% | 17.5% | 16.6% |
| 5am- | 15.3% | 14.6% | 21.3% | 17.5% | 14.4% | 14.6% | 20.5% | 17.0% |
| 6am- | 19.0% | 11.0% | 19.1% | 15.5% | 16.0% | 15.5% | 16.0% | 15.9% |
| 7am- | 22.7% | 12.6% | 20.1% | 12.9% | 11.9% | 15.6% | 25.1% | 15.8% |
| 8am- | 28.0% | 11.7% | 19.3% | 14.3% | 17.8% | 16.5% | 26.9% | 17.9% |
| 9am- | 24.6% | 12.8% | 20.0% | 18.4% | 24.3% | 11.9% | 21.7% | 18.9% |
| 10am- | 20.3% | 12.7% | 14.0% | 15.5% | 23.0% | 9.7% | 14.1% | 15.4% |
| 11am- | 14.3% | 10.5% | 11.5% | 11.3% | 18.8% | 8.6% | 9.5% | 12.0% |
| 12pm- | 10.5% | 8.5% | 9.8% | 8.6% | 12.1% | 8.5% | 8.6% | 9.5% |
| 1pm- | 10.0% | 9.2% | 9.5% | 8.7% | 11.4% | 8.7% | 10.2% | 9.7% |
| 2pm- | 9.0% | 7.8% | 8.3% | 8.2% | 11.0% | 9.1% | 11.7% | 9.3% |
| 3pm- | 9.9% | 9.1% | 9.4% | 9.1% | 9.9% | 9.1% | 11.6% | 9.6% |
| 4pm- | 9.7% | 9.2% | 9.1% | 7.7% | 10.0% | 8.3% | 11.3% | 9.2% |
| 5pm- | 12.5% | 8.5% | 7.1% | 7.9% | 10.5% | 8.1% | 11.4% | 9.1% |
| 6pm- | 10.3% | 8.6% | 8.4% | 7.7% | 10.2% | 8.5% | 10.3% | 9.1% |
| 7pm- | 11.1% | 9.3% | 10.1% | 9.5% | 10.6% | 9.0% | 10.9% | 10.0% |
| 8pm- | 12.2% | 9.1% | 10.2% | 9.7% | 11.7% | 9.4% | 12.6% | 10.7% |
| 9pm- | 12.5% | 9.5% | 9.0% | 11.7% | 13.2% | 12.0% | 12.0% | 11.5% |
| 10pm- | 13.4% | 12.7% | 11.1% | 14.1% | 13.8% | 11.2% | 15.3% | 13.1% |
| 11pm- | 13.7% | 14.1% | 13.7% | 13.3% | 13.2% | 13.5% | 15.2% | 13.9% |
| **% Speed-related by day** | **13.9%** | **10.3%** | **12.3%** | **11.1%** | **13.6%** | **10.5%** | **13.6%** | **12.1%** |

Low ◄─────────────────────► High

**Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015**

**Notes:**
**1) Includes collisions where valid time was reported.**
**2) Color scale applies to all days/times.**

**Figure 8.6. Distribution of total and fatal crashes and rates of speed involvement, by Census locale, 2014**



All collisions

Fatal collisions

*Inner pie: Geographic distribution of collisions*

*Outer ring: Speed involvement rates, by Census locality*

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) See glossary for Census locale definitions.
2) Excludes cases where locale could not be determined.

**Figure 8.7. Distribution of total and fatal crashes and rates of speed involvement, by road type, 2014**



All collisions

Fatal collisions

*Inner pie: Geographic distribution of collisions*

*Outer ring: Speed involvement rates, by road type*

Source: Indiana State Police Automated Reporting and Information Exchange System (ARIES), as of March 23, 2015

Note: Includes collisions where valid road class was reported.

# CHAPTER 9
# COUNTIES

# COUNTIES, 2014

Understanding the spatial distribution of traffic collisions and injuries can assist officials in developing policies and targeting resources to address the many variables that may impact the geography of crashes. A variety of factors may influence the number and nature of traffic collisions that occur in a given area, including the size and makeup of the population, the number of registered vehicles and licensed drivers, the number of vehicle miles traveled (VMT), and, perhaps most importantly, human behaviors and social norms that may contribute to the likelihood of particular types of crashes occurring in regions throughout the state. The following tables and *choropleth* maps show various collision and injury rates in Indiana counties in 2014. The economic costs associated with 2014 collisions are also reported for each county.

*Note: Choropleth maps show counties grouped by quartiles.*

### Collision severity and injuries

In 2014, 205,532 collisions occurred in Indiana, 702 of which were fatal. The mean number of collisions per county was 2,234, and the mean number of fatal collisions per county was 8 (Table 9.1). Marion County ranked highest in the total number of collisions (30,385), and Switzerland County ranked highest in the percentage of all collisions that were fatal (2.4). The mean county rate of collisions per 100 million (100M) VMT was 232, and the median rate was 231 (Map 9.1). Tippecanoe (446.6), Monroe (434.9), and Vanderburgh (402.7) counties had the highest rate of collisions per 100M VMT (Map 9.1).

The total number of individuals involved in 2014 Indiana collisions was 330,667, and the mean number of individuals involved in collisions per county was 3,594 (Table 9.2). Marion County had the largest number of individuals involved (53,860) and the largest number of traffic fatalities (84). The median county traffic fatality rate per 100,000 population was 14.4 (Map 9.2), with Tipton County having the highest rate per 100,000 (64.9) and Martin and Blackford counties having the lowest (0.0).

### Speed-related collisions

Speed-related collisions accounted for 12 percent of all Indiana collisions in 2014, and 26 percent of all fatal collisions (Table 9.3). The mean number of speed-related collisions per county was 270. Ohio (2.5 percent) and Blackford (3.8 percent) counties had the lowest percentage of speed-related collisions, and LaGrange (28.9 percent), Tipton (24.4 percent), Carroll (20.7 percent), and Franklin (20.1 percent) had the highest percentages of all collisions that were speed-related. The median county percent of speed-related collisions was 10.9, and many counties with the highest percentages of speed-related collisions were clustered in the northern half of the state (Map 9.3).

### Alcohol collisions

Indiana collisions that involved an alcohol-impaired driver accounted for 2.2 percent of all Indiana collisions in 2014, and

13.4 percent of all fatal collisions (Table 9.4). The mean number of alcohol-impaired collisions per county was 50, and the mean number of fatal alcohol-impaired collisions per county was 1. The mean percentage of alcohol-impaired collisions was 2.5 percent. Pike (7 percent) and Union (5.6 percent) counties had the highest percentages of alcohol-impaired collisions, and Ohio (0 percent), Starke (1 percent), and Martin (1 percent) counties had the lowest percentage of alcohol-impaired collisions (Map 9.4).

### Deer collisions

A large percentage of 2014 collisions that occurred in Indiana counties that are predominantly rural involved deer (Map 9.5). Even among all counties, the mean percentage of deer-related collisions was 15 percent. Counties with the highest percentage of deer-involved collisions were clustered in areas outside of central Indiana. Pulaski County (47.5) and Warren County (41.7 percent) had the highest percentages of deer-involved collisions, while the urban counties of Marion (0.4 percent) and Lake (1.4 percent) had the lowest percentages of collisions that involved deer.

### Work zone collisions

There were 3,979 work zone collisions in Indiana in 2014 (Map 9.6). The mean county rate of work zone collisions per 1,000 total collisions was 13.5, and the median rate was 8.1. Jackson County (81.8), located in southeastern Indiana along I-65, Benton County (76.9) in northwestern Indiana, and Hamilton County (71.3), located just north of Indianapolis, had the highest rates of work zone collisions per 1,000 collisions. It is worth noting that work zone locations are constantly changing throughout the state, a fact that affects which counties have the highest work zone collision rates from year to year.

### Restraint use

Forty-two percent of vehicle occupants killed in Indiana collisions were unrestrained in 2014, while only 8.8 percent of individuals suffering non-incapacitating injuries were unrestrained (Table 9.5). The median county percent of unrestrained individuals involved in collisions was 3.1 (Map 9.7). Daviess (9.8) and Martin (7.8) counties, located in southwestern Indiana, had the highest rates of unrestrained vehicle occupants in collisions. More generally, urban counties had the lowest percentages of unrestrained injuries, and southern Indiana counties have higher rates of unrestrained injuries than counties located in northern portions of the state.

### Young drivers

In 2014, 40,460 young drivers (ages 15 to 20) were involved in collisions (12.8 percent of all drivers involved). Thirty-four young drivers were killed in 2014 collisions (Table 9.6). Ohio (20 percent) and Benton (19.5 percent) counties had the highest percentages of young drivers in collisions. The mean county rate of young driver involvement in collisions was 102.5 per 1,000 licensed young drivers, and the median county rate was

98.4. Counties that are the locations of large universities (Vanderburgh, Tippecanoe, Monroe, Vigo, and Delaware) had high rates of young driver involvement in collisions (Map 9.8).

## Motorcycle collisions

Of the 205,532 collisions occurring in Indiana in 2014, 3,407 (1.7 percent) involved motorcycles, 123 of which were fatal, representing 17.5 percent of all fatal collisions (Table 9.7). On average, 2 percent of collisions in Indiana counties involved a motorcycle. The highest percentages of collisions involving motorcycles occurred in Martin (6 percent), Union (5.6 percent), and Brown (5.2 percent) counties (Map 9.9).

## Hit-and-run collisions

Drivers involved in collisions resulting in injury or death are expected to remain or immediately return to the scene to provide proper identification (IC 9-26-1-1). Hit-and-run collisions accounted for 12 percent or 24,581 of the 205,532 collisions in Indiana in 2014. The mean county percent of hit-and-run collisions was 7.6 percent, and the median county percent was 7.1 percent (Map 9.10). Allen County (18.9 percent) and Vigo County (18.1 percent) had the highest hit-and-run collision rates in the state in 2014.

## County ranks

Table 9.8 shows Indiana counties ranked by six collision metrics: total collisions per 100M VMT, percent of speed-related collisions, percent of alcohol-impaired collisions, percent of motorcycle collisions, percent of unrestrained fatal and incapacitating injuries, and percent of young drivers in collisions. A composite index consisting of the average of the six ranks was also calculated to provide an indication of a county's overall traffic safety environment. However, a number of factors not accounted for here—such as different population compositions, road types, driving conditions, reporting practices, etc.—may influence collision rankings, so readers should be mindful of these differences when viewing county ranks.

Based on the composite index (Map 9.11), many counties with relatively dangerous traffic safety environments were clustered in north central Indiana and southern Indiana in 2014. By this index, Brown County (1), Pike County (2), and Wabash County (3) were the most dangerous counties in 2014 while Scott (92), Warren (91), and Boone (90) counties were the safest. Most of the top ten counties with the most dangerous traffic safety environments in 2014 (Brown, Pike, Warren, Tippecanoe, Posey, Franklin, Union, Knox, Clinton, and Perry) were primarily rural counties.

## Economic Costs

Map 9.12 shows the economic costs associated with collisions by county. Because costs are based on the number of collisions and injuries that occur and because more heavily populated areas tend to record higher numbers of collisions and injuries, counties with larger populations had the highest total economic costs of collisions in 2014. Marion County recorded the highest estimated economic costs with $556 million, followed by Lake County ($296 million), and Allen County ($222 million). The median county economic cost of collisions was $20 million, and the mean county economic cost of collisions was $41 million. Map 9.13 shows the economic costs per capita associated with collisions by county in 2014. While Tipton ($1,006) and Jasper ($973) counties, in northern Indiana, had the highest per capita costs of collisions, many of the counties with the highest per capita collision costs are clustered in southern Indiana. The median county per capita cost of collisions was $559, and the mean county per capita cost of collisions was $566.

### Table 9.1. Indiana collisions, by severity and county, 2014

| | Total collisions | | Fatal | | | Non-fatal injury | | Property damage only | |
|---|---|---|---|---|---|---|---|---|---|
| | Count | County rank | Count | As % county total | County rank (on %) | Count | As % county total | Count | As % county total |
| All counties | 205,532 | na | 702 | 0.3 | na | 33,823 | 16.5 | 171,007 | 83.2 |
| Mean | 2,234 | na | 8 | 0.6 | na | 368 | 16.0 | 1,859 | 83.4 |
| Median | 993 | na | 6 | 0 | na | 155 | 15 | 847 | 84 |
| Minimum | 79 | na | 0 | 0.0 | na | 11 | 8.6 | 67 | 66.7 |
| Maximum | 30,385 | na | 79 | 2.4 | na | 5,413 | 31.3 | 24,893 | 91.0 |
| Adams | 747 | 58 | 5 | 0.7 | 30 | 95 | 12.7 | 647 | 86.6 |
| Allen | 12,182 | 3 | 30 | 0.2 | 74 | 2,344 | 19.2 | 9,808 | 80.5 |
| Bartholomew | 2,169 | 23 | 11 | 0.5 | 45 | 571 | 26.3 | 1,587 | 73.2 |
| Benton | 156 | 89 | 2 | 1.3 | 5 | 29 | 18.6 | 125 | 80.1 |
| Blackford | 345 | 83 | 0 | 0.0 | 91 | 38 | 11.0 | 307 | 89.0 |
| Boone | 1,888 | 26 | 11 | 0.6 | 34 | 266 | 14.1 | 1,611 | 85.3 |
| Brown | 535 | 69 | 4 | 0.7 | 20 | 91 | 17.0 | 440 | 82.2 |
| Carroll | 522 | 70 | 6 | 1.1 | 7 | 80 | 15.3 | 436 | 83.5 |
| Cass | 1,162 | 40 | 6 | 0.5 | 44 | 168 | 14.5 | 988 | 85.0 |
| Clark | 4,593 | 10 | 11 | 0.2 | 76 | 775 | 16.9 | 3,807 | 82.9 |
| Clay | 802 | 56 | 1 | 0.1 | 87 | 120 | 15.0 | 681 | 84.9 |
| Clinton | 1,161 | 41 | 3 | 0.3 | 71 | 158 | 13.6 | 1,000 | 86.1 |
| Crawford | 260 | 86 | 1 | 0.4 | 58 | 32 | 12.3 | 227 | 87.3 |
| Daviess | 345 | 83 | 7 | 2.0 | 2 | 108 | 31.3 | 230 | 66.7 |
| Dearborn | 1,947 | 24 | 1 | 0.1 | 90 | 237 | 12.2 | 1,709 | 87.8 |
| Decatur | 890 | 51 | 6 | 0.7 | 28 | 125 | 14.0 | 759 | 85.3 |
| DeKalb | 1,393 | 35 | 8 | 0.6 | 36 | 181 | 13.0 | 1,204 | 86.4 |
| Delaware | 4,204 | 11 | 15 | 0.4 | 61 | 685 | 16.3 | 3,504 | 83.3 |
| Dubois | 1,636 | 30 | 7 | 0.4 | 53 | 241 | 14.7 | 1,388 | 84.8 |
| Elkhart | 7,579 | 5 | 20 | 0.3 | 69 | 957 | 12.6 | 6,602 | 87.1 |
| Fayette | 439 | 76 | 3 | 0.7 | 26 | 55 | 12.5 | 381 | 86.8 |
| Floyd | 2,720 | 18 | 5 | 0.2 | 82 | 478 | 17.6 | 2,237 | 82.2 |
| Fountain | 471 | 75 | 4 | 0.8 | 11 | 56 | 11.9 | 411 | 87.3 |
| Franklin | 513 | 72 | 1 | 0.2 | 80 | 87 | 17.0 | 425 | 82.8 |
| Fulton | 544 | 68 | 1 | 0.2 | 82 | 61 | 11.2 | 482 | 88.6 |
| Gibson | 1,159 | 42 | 6 | 0.5 | 43 | 201 | 17.3 | 952 | 82.1 |
| Grant | 2,484 | 20 | 7 | 0.3 | 66 | 350 | 14.1 | 2,127 | 85.6 |
| Greene | 887 | 52 | 9 | 1.0 | 9 | 127 | 14.3 | 751 | 84.7 |
| Hamilton | 7,576 | 6 | 14 | 0.2 | 81 | 1,028 | 13.6 | 6,534 | 86.2 |
| Hancock | 1,645 | 28 | 5 | 0.3 | 64 | 257 | 15.6 | 1,383 | 84.1 |
| Harrison | 1,235 | 37 | 5 | 0.4 | 57 | 241 | 19.5 | 989 | 80.1 |
| Hendricks | 4,029 | 13 | 7 | 0.2 | 84 | 590 | 14.6 | 3,432 | 85.2 |
| Henry | 1,045 | 44 | 8 | 0.8 | 19 | 154 | 14.7 | 883 | 84.5 |
| Howard | 2,282 | 22 | 10 | 0.4 | 51 | 489 | 21.4 | 1,783 | 78.1 |
| Huntington | 1,232 | 38 | 1 | 0.1 | 88 | 196 | 15.9 | 1,035 | 84.0 |
| Jackson | 1,907 | 25 | 8 | 0.4 | 54 | 269 | 14.1 | 1,630 | 85.5 |
| Jasper | 1,361 | 36 | 11 | 0.8 | 17 | 220 | 16.2 | 1,130 | 83.0 |
| Jay | 712 | 61 | 6 | 0.8 | 12 | 89 | 12.5 | 617 | 86.7 |
| Jefferson | 998 | 46 | 7 | 0.7 | 24 | 151 | 15.1 | 840 | 84.2 |
| Jennings | 834 | 54 | 4 | 0.5 | 48 | 150 | 18.0 | 680 | 81.5 |
| Johnson | 3,218 | 17 | 7 | 0.2 | 78 | 585 | 18.2 | 2,626 | 81.6 |
| Knox | 936 | 50 | 5 | 0.5 | 41 | 190 | 20.3 | 741 | 79.2 |
| Kosciusko | 2,522 | 19 | 7 | 0.3 | 67 | 349 | 13.8 | 2,166 | 85.9 |
| LaGrange | 1,032 | 45 | 7 | 0.7 | 27 | 126 | 12.2 | 899 | 87.1 |
| Lake | 17,301 | 2 | 43 | 0.2 | 73 | 2,782 | 16.1 | 14,476 | 83.7 |
| LaPorte | 3,669 | 15 | 19 | 0.5 | 42 | 670 | 18.3 | 2,980 | 81.2 |
| Lawrence | 1,495 | 31 | 8 | 0.5 | 39 | 270 | 18.1 | 1,217 | 81.4 |
| Madison | 3,876 | 14 | 21 | 0.5 | 38 | 535 | 13.8 | 3,320 | 85.7 |

**Table 9.1.** *(continued)*

| | Total collisions | | Fatal | | | Non-fatal injury | | Property damage only | |
|---|---|---|---|---|---|---|---|---|---|
| | Count | County rank | Count | As % county total | County rank (on %) | Count | As % county total | Count | As % county total |
| Marion | 30,385 | 1 | 79 | 0.3 | 70 | 5,413 | 17.8 | 24,893 | 81.9 |
| Marshall | 1,408 | 34 | 7 | 0.5 | 46 | 215 | 15.3 | 1,186 | 84.2 |
| Martin | 100 | 91 | 0 | 0.0 | 91 | 24 | 24.0 | 76 | 76.0 |
| Miami | 987 | 47 | 4 | 0.4 | 56 | 169 | 17.1 | 814 | 82.5 |
| Monroe | 4,167 | 12 | 7 | 0.2 | 86 | 817 | 19.6 | 3,343 | 80.2 |
| Montgomery | 1,089 | 43 | 3 | 0.3 | 68 | 178 | 16.3 | 908 | 83.4 |
| Morgan | 1,642 | 29 | 11 | 0.7 | 29 | 288 | 17.5 | 1,343 | 81.8 |
| Newton | 356 | 82 | 3 | 0.8 | 12 | 66 | 18.5 | 287 | 80.6 |
| Noble | 1,482 | 32 | 7 | 0.5 | 49 | 210 | 14.2 | 1,265 | 85.4 |
| Ohio | 79 | 92 | 1 | 1.3 | 6 | 11 | 13.9 | 67 | 84.8 |
| Orange | 595 | 65 | 1 | 0.2 | 85 | 89 | 15.0 | 505 | 84.9 |
| Owen | 514 | 71 | 3 | 0.6 | 33 | 82 | 16.0 | 429 | 83.5 |
| Parke | 504 | 73 | 4 | 0.8 | 18 | 67 | 13.3 | 433 | 85.9 |
| Perry | 436 | 77 | 3 | 0.7 | 25 | 71 | 16.3 | 362 | 83.0 |
| Pike | 187 | 87 | 1 | 0.5 | 40 | 41 | 21.9 | 145 | 77.5 |
| Porter | 5,128 | 9 | 12 | 0.2 | 77 | 949 | 18.5 | 4,167 | 81.3 |
| Posey | 619 | 63 | 4 | 0.6 | 31 | 85 | 13.7 | 530 | 85.6 |
| Pulaski | 434 | 78 | 2 | 0.5 | 50 | 53 | 12.2 | 379 | 87.3 |
| Putnam | 764 | 57 | 8 | 1.0 | 8 | 111 | 14.5 | 645 | 84.4 |
| Randolph | 546 | 67 | 4 | 0.7 | 22 | 61 | 11.2 | 481 | 88.1 |
| Ripley | 806 | 55 | 5 | 0.6 | 32 | 119 | 14.8 | 682 | 84.6 |
| Rush | 357 | 81 | 2 | 0.6 | 37 | 67 | 18.8 | 288 | 80.7 |
| St. Joseph | 7,891 | 4 | 23 | 0.3 | 65 | 1,408 | 17.8 | 6,460 | 81.9 |
| Scott | 715 | 60 | 6 | 0.8 | 14 | 156 | 21.8 | 553 | 77.3 |
| Shelby | 1,227 | 39 | 6 | 0.5 | 47 | 294 | 24.0 | 927 | 75.6 |
| Spencer | 586 | 66 | 2 | 0.3 | 62 | 96 | 16.4 | 488 | 83.3 |
| Starke | 617 | 64 | 5 | 0.8 | 16 | 92 | 14.9 | 520 | 84.3 |
| Steuben | 1,681 | 27 | 6 | 0.4 | 60 | 181 | 10.8 | 1,494 | 88.9 |
| Sullivan | 489 | 74 | 2 | 0.4 | 55 | 81 | 16.6 | 406 | 83.0 |
| Switzerland | 165 | 88 | 4 | 2.4 | 1 | 28 | 17.0 | 133 | 80.6 |
| Tippecanoe | 7,228 | 7 | 5 | 0.1 | 89 | 1,029 | 14.2 | 6,194 | 85.7 |
| Tipton | 361 | 80 | 6 | 1.7 | 3 | 77 | 21.3 | 278 | 77.0 |
| Union | 125 | 90 | 2 | 1.6 | 4 | 22 | 17.6 | 101 | 80.8 |
| Vanderburgh | 6,960 | 8 | 17 | 0.2 | 75 | 1,304 | 18.7 | 5,639 | 81.0 |
| Vermillion | 400 | 79 | 4 | 1.0 | 10 | 63 | 15.8 | 333 | 83.3 |
| Vigo | 3,553 | 16 | 9 | 0.3 | 72 | 584 | 16.4 | 2,960 | 83.3 |
| Wabash | 953 | 49 | 7 | 0.7 | 21 | 126 | 13.2 | 820 | 86.0 |
| Warren | 278 | 85 | 1 | 0.4 | 59 | 24 | 8.6 | 253 | 91.0 |
| Warrick | 1,428 | 33 | 3 | 0.2 | 79 | 180 | 12.6 | 1,245 | 87.2 |
| Washington | 737 | 59 | 6 | 0.8 | 15 | 140 | 19.0 | 591 | 80.2 |
| Wayne | 2,373 | 21 | 8 | 0.3 | 63 | 351 | 14.8 | 2,014 | 84.9 |
| Wells | 688 | 62 | 3 | 0.4 | 52 | 105 | 15.3 | 580 | 84.3 |
| White | 981 | 48 | 7 | 0.7 | 23 | 121 | 12.3 | 853 | 87.0 |
| Whitley | 869 | 53 | 5 | 0.6 | 35 | 118 | 13.6 | 746 | 85.8 |
| Unknown | 4 | na | 0 | 0.0 | na | 0 | 0.0 | 4 | 100.0 |

**Source:** Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

**Note:** *Non-fatal injury* collisions include collisions with *incapacitating, non-incapacitating* and *possible* injuries.

**Map 9.1. Traffic collisions per 100M vehicle miles traveled, by county, 2014**



Lake 301.1
Porter 234.2
LaPorte 232.4
St. Joseph 265.3
Elkhart 393.4
LaGrange 201.8
Steuben 254.2
Noble 346.1
DeKalb 204.4
Newton 136.2
Jasper 160.7
Starke 251.2
Marshall 244.1
Kosciusko 336.6
Whitley 188.4
Allen 257.9
Pulaski 219.4
Fulton 207.0
White 167.8
Benton 98.0
Cass 263.5
Miami 231.9
Wabash 293.7
Huntington 205.7
Wells 245.1
Adams 248.1
Warren 169.6
Carroll 182.0
Howard 270.8
Grant 301.9
Blackford 212.9
Jay 275.5
Tippecanoe 446.6
Clinton 248.1
Tipton 125.8
Madison 263.2
Delaware 322.1
Randolph 198.1
Fountain 180.0
Montgomery 231.6
Boone 161.1
Hamilton 232.3
Henry 159.9
Wayne 295.0
Vermillion 159.8
Parke 217.8
Hendricks 232.0
Marion 262.4
Hancock 162.9
Rush 148.2
Fayette 245.0
Union 158.5
Putnam 138.7
Morgan 182.7
Johnson 197.7
Shelby 167.0
Franklin 208.5
Vigo 295.2
Clay 198.1
Owen 231.2
Monroe 434.9
Brown 393.0
Bartholomew 199.1
Decatur 189.3
Ripley 230.7
Dearborn 302.6
Sullivan 162.8
Greene 231.7
Jennings 240.8
Ohio 171.8
Knox 186.8
Daviess 87.2
Martin 69.7
Lawrence 352.2
Jackson 282.0
Jefferson 317.2
Switzerland 157.0
Scott 216.2
Orange 318.4
Washington 242.1
Clark 346.4
Pike 93.2
Gibson 195.9
Dubois 366.5
Crawford 112.5
Floyd 357.4
Harrison 269.6
Posey 178.0
Vanderburgh 402.7
Warrick 223.6
Spencer 162.2
Perry 177.0

Median rate = 231.0
Mean rate = 232.0
n = 205,528 collisions
(where county was known)

**Collisions per 100 million VMT**

| | |
|---|---|
| ☐ | 69.7 - 177.0 |
| ☐ | 177.1 - 230.9 |
| ☐ | 231.0 - 269.6 |
| ☐ | 269.7 - 446.6 |

Sources:
Collisions: Indiana State Police Automated Reporting Information Exchange System (ARIES) as of March 23, 2015
VMT: Indiana Department of Transportation (2013 most recent year available by county)

**Table 9.2. Individuals involved in Indiana collisions, by injury status and county, 2014**

| | Total individuals involved | | Fatal | | | Incapacitating | | Non-incapacitating | | Other/no injury | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Count | County rank | Count | As % county total | County rank (on %) | Count | As % county total | Count | As % county total | Count | As % county total |
| **All counties** | **330,667** | **na** | **743** | **0.2** | **na** | **5,493** | **1.7** | **40,864** | **12.4** | **283,567** | **85.8** |
| Mean | 3,594 | na | 8 | 0.4 | na | 60 | 2.3 | 444 | 12.6 | 3,082 | 84.7 |
| Median | 1,404 | na | 6 | 0 | na | 37 | 2 | 176 | 12 | 1,219 | 86 |
| Minimum | 90 | na | 0 | 0.0 | na | 3 | 0.0 | 12 | 6.7 | 77 | 72.1 |
| Maximum | 53,860 | na | 84 | 1.9 | na | 552 | 5.7 | 6,946 | 24.1 | 46,278 | 90.9 |
| Adams | 1,079 | 59 | 5 | 0.5 | 28 | 29 | 2.7 | 102 | 9.5 | 943 | 87.4 |
| Allen | 19,805 | 3 | 31 | 0.2 | 73 | 341 | 1.7 | 2,865 | 14.5 | 16,568 | 83.7 |
| Bartholomew | 3,693 | 22 | 12 | 0.3 | 50 | 92 | 2.5 | 706 | 19.1 | 2,883 | 78.1 |
| Benton | 202 | 89 | 2 | 1.0 | 6 | 10 | 5.0 | 28 | 13.9 | 162 | 80.2 |
| Blackford | 473 | 84 | 0 | 0.0 | 91 | 11 | 2.3 | 44 | 9.3 | 418 | 88.4 |
| Boone | 2,898 | 24 | 13 | 0.4 | 32 | 52 | 1.8 | 302 | 10.4 | 2,531 | 87.3 |
| Brown | 708 | 70 | 5 | 0.7 | 11 | 14 | 2.0 | 101 | 14.3 | 588 | 83.1 |
| Carroll | 675 | 73 | 6 | 0.9 | 7 | 19 | 2.8 | 101 | 15.0 | 549 | 81.3 |
| Cass | 1,721 | 41 | 6 | 0.3 | 45 | 19 | 1.1 | 223 | 13.0 | 1,473 | 85.6 |
| Clark | 7,583 | 10 | 11 | 0.1 | 77 | 116 | 1.5 | 971 | 12.8 | 6,485 | 85.5 |
| Clay | 1,228 | 55 | 1 | 0.1 | 87 | 17 | 1.4 | 144 | 11.7 | 1,066 | 86.8 |
| Clinton | 1,624 | 42 | 3 | 0.2 | 67 | 35 | 2.2 | 168 | 10.3 | 1,418 | 87.3 |
| Crawford | 342 | 85 | 1 | 0.3 | 55 | 3 | 0.9 | 37 | 10.8 | 301 | 88.0 |
| Daviess | 560 | 79 | 8 | 1.4 | 3 | 13 | 2.3 | 135 | 24.1 | 404 | 72.1 |
| Dearborn | 2,849 | 25 | 1 | 0.0 | 90 | 62 | 2.2 | 257 | 9.0 | 2,529 | 88.8 |
| Decatur | 1,298 | 52 | 6 | 0.5 | 29 | 40 | 3.1 | 125 | 9.6 | 1,127 | 86.8 |
| DeKalb | 1,995 | 35 | 9 | 0.5 | 30 | 53 | 2.7 | 201 | 10.1 | 1,732 | 86.8 |
| Delaware | 6,749 | 12 | 15 | 0.2 | 63 | 121 | 1.8 | 829 | 12.3 | 5,784 | 85.7 |
| Dubois | 2,365 | 29 | 7 | 0.3 | 54 | 44 | 1.9 | 282 | 11.9 | 2,032 | 85.9 |
| Elkhart | 12,075 | 7 | 20 | 0.2 | 70 | 195 | 1.6 | 1,101 | 9.1 | 10,759 | 89.1 |
| Fayette | 691 | 72 | 3 | 0.4 | 34 | 7 | 1.0 | 77 | 11.1 | 604 | 87.4 |
| Floyd | 4,591 | 18 | 5 | 0.1 | 83 | 85 | 1.9 | 579 | 12.6 | 3,922 | 85.4 |
| Fountain | 616 | 77 | 4 | 0.6 | 15 | 15 | 2.4 | 66 | 10.7 | 531 | 86.2 |
| Franklin | 696 | 71 | 1 | 0.1 | 78 | 40 | 5.7 | 77 | 11.1 | 578 | 83.0 |
| Fulton | 719 | 68 | 1 | 0.1 | 80 | 9 | 1.3 | 66 | 9.2 | 643 | 89.4 |
| Gibson | 1,763 | 39 | 6 | 0.3 | 46 | 49 | 2.8 | 232 | 13.2 | 1,476 | 83.7 |
| Grant | 3,729 | 21 | 8 | 0.2 | 64 | 48 | 1.3 | 419 | 11.2 | 3,254 | 87.3 |
| Greene | 1,205 | 56 | 9 | 0.7 | 10 | 37 | 3.1 | 135 | 11.2 | 1,024 | 85.0 |
| Hamilton | 13,520 | 4 | 14 | 0.1 | 85 | 143 | 1.1 | 1,243 | 9.2 | 12,120 | 89.6 |
| Hancock | 2,735 | 27 | 5 | 0.2 | 68 | 42 | 1.5 | 330 | 12.1 | 2,358 | 86.2 |
| Harrison | 1,823 | 38 | 5 | 0.3 | 58 | 46 | 2.5 | 328 | 18.0 | 1,444 | 79.2 |
| Hendricks | 6,860 | 11 | 7 | 0.1 | 86 | 121 | 1.8 | 687 | 10.0 | 6,045 | 88.1 |
| Henry | 1,582 | 44 | 9 | 0.6 | 21 | 38 | 2.4 | 177 | 11.2 | 1,358 | 85.8 |
| Howard | 3,910 | 19 | 10 | 0.3 | 61 | 88 | 2.3 | 591 | 15.1 | 3,221 | 82.4 |
| Huntington | 1,736 | 40 | 1 | 0.1 | 88 | 36 | 2.1 | 221 | 12.7 | 1,478 | 85.1 |
| Jackson | 2,830 | 26 | 8 | 0.3 | 57 | 56 | 2.0 | 288 | 10.2 | 2,478 | 87.6 |
| Jasper | 1,905 | 36 | 13 | 0.7 | 13 | 48 | 2.5 | 260 | 13.6 | 1,584 | 83.1 |
| Jay | 941 | 62 | 8 | 0.9 | 8 | 10 | 1.1 | 104 | 11.1 | 819 | 87.0 |
| Jefferson | 1,552 | 45 | 7 | 0.5 | 31 | 37 | 2.4 | 175 | 11.3 | 1,333 | 85.9 |
| Jennings | 1,314 | 51 | 4 | 0.3 | 52 | 40 | 3.0 | 193 | 14.7 | 1,077 | 82.0 |
| Johnson | 5,643 | 16 | 8 | 0.1 | 79 | 77 | 1.4 | 711 | 12.6 | 4,847 | 85.9 |
| Knox | 1,396 | 48 | 5 | 0.4 | 43 | 39 | 2.8 | 218 | 15.6 | 1,134 | 81.2 |
| Kosciusko | 3,765 | 20 | 8 | 0.2 | 65 | 33 | 0.9 | 466 | 12.4 | 3,258 | 86.5 |
| LaGrange | 1,387 | 49 | 7 | 0.5 | 25 | 19 | 1.4 | 162 | 11.7 | 1,199 | 86.4 |
| Lake | 28,824 | 2 | 46 | 0.2 | 72 | 365 | 1.3 | 3,437 | 11.9 | 24,976 | 86.7 |
| LaPorte | 5,728 | 15 | 21 | 0.4 | 41 | 130 | 2.3 | 838 | 14.6 | 4,739 | 82.7 |
| Lawrence | 2,236 | 31 | 8 | 0.4 | 44 | 73 | 3.3 | 307 | 13.7 | 1,848 | 82.6 |
| Madison | 6,077 | 14 | 22 | 0.4 | 42 | 108 | 1.8 | 645 | 10.6 | 5,302 | 87.2 |

**Table 9.2.** *(continued)*

| | Total individuals involved | | Fatal | | | Incapacitating | | Non-incapacitating | | Other/no injury | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Count | County rank | Count | As % county total | County rank (on %) | Count | As % county total | Count | As % county total | Count | As % county total |
| Marion | 53,860 | 1 | 84 | 0.2 | 74 | 552 | 1.0 | 6,946 | 12.9 | 46,278 | 85.9 |
| Marshall | 2,064 | 34 | 7 | 0.3 | 47 | 32 | 1.6 | 282 | 13.7 | 1,743 | 84.4 |
| Martin | 140 | 91 | 0 | 0.0 | 91 | 7 | 5.0 | 25 | 17.9 | 108 | 77.1 |
| Miami | 1,406 | 46 | 4 | 0.3 | 56 | 37 | 2.6 | 196 | 13.9 | 1,169 | 83.1 |
| Monroe | 6,661 | 13 | 7 | 0.1 | 84 | 142 | 2.1 | 908 | 13.6 | 5,604 | 84.1 |
| Montgomery | 1,609 | 43 | 3 | 0.2 | 66 | 63 | 3.9 | 186 | 11.6 | 1,357 | 84.3 |
| Morgan | 2,703 | 28 | 11 | 0.4 | 36 | 55 | 2.0 | 340 | 12.6 | 2,297 | 85.0 |
| Newton | 478 | 83 | 3 | 0.6 | 17 | 13 | 2.7 | 77 | 16.1 | 385 | 80.5 |
| Noble | 2,100 | 33 | 7 | 0.3 | 48 | 85 | 4.0 | 219 | 10.4 | 1,789 | 85.2 |
| Ohio | 90 | 92 | 1 | 1.1 | 5 | | 0.0 | 12 | 13.3 | 77 | 85.6 |
| Orange | 782 | 66 | 1 | 0.1 | 82 | 32 | 4.1 | 87 | 11.1 | 662 | 84.7 |
| Owen | 718 | 69 | 3 | 0.4 | 35 | 24 | 3.3 | 90 | 12.5 | 601 | 83.7 |
| Parke | 640 | 75 | 4 | 0.6 | 18 | 20 | 3.1 | 80 | 12.5 | 536 | 83.8 |
| Perry | 635 | 76 | 4 | 0.6 | 16 | 14 | 2.2 | 94 | 14.8 | 523 | 82.4 |
| Pike | 259 | 87 | 1 | 0.4 | 39 | 5 | 1.9 | 47 | 18.1 | 206 | 79.5 |
| Porter | 8,339 | 9 | 13 | 0.2 | 75 | 127 | 1.5 | 1,146 | 13.7 | 7,053 | 84.6 |
| Posey | 835 | 64 | 4 | 0.5 | 27 | 24 | 2.9 | 81 | 9.7 | 726 | 86.9 |
| Pulaski | 543 | 80 | 2 | 0.4 | 40 | 16 | 2.9 | 60 | 11.0 | 465 | 85.6 |
| Putnam | 1,143 | 57 | 9 | 0.8 | 9 | 29 | 2.5 | 127 | 11.1 | 978 | 85.6 |
| Randolph | 763 | 67 | 4 | 0.5 | 23 | 9 | 1.2 | 75 | 9.8 | 675 | 88.5 |
| Ripley | 1,115 | 58 | 5 | 0.4 | 33 | 21 | 1.9 | 130 | 11.7 | 959 | 86.0 |
| Rush | 502 | 82 | 2 | 0.4 | 37 | 20 | 4.0 | 66 | 13.1 | 414 | 82.5 |
| St. Joseph | 12,815 | 5 | 23 | 0.2 | 69 | 188 | 1.5 | 1,722 | 13.4 | 10,882 | 84.9 |
| Scott | 1,233 | 54 | 6 | 0.5 | 26 | 50 | 4.1 | 188 | 15.2 | 989 | 80.2 |
| Shelby | 1,841 | 37 | 6 | 0.3 | 49 | 72 | 3.9 | 324 | 17.6 | 1,439 | 78.2 |
| Spencer | 796 | 65 | 2 | 0.3 | 62 | 13 | 1.6 | 121 | 15.2 | 660 | 82.9 |
| Starke | 856 | 63 | 5 | 0.6 | 19 | 18 | 2.1 | 121 | 14.1 | 712 | 83.2 |
| Steuben | 2,277 | 30 | 6 | 0.3 | 59 | 49 | 2.2 | 207 | 9.1 | 2,015 | 88.5 |
| Sullivan | 669 | 74 | 2 | 0.3 | 53 | 25 | 3.7 | 95 | 14.2 | 547 | 81.8 |
| Switzerland | 241 | 88 | 4 | 1.7 | 2 | 8 | 3.3 | 33 | 13.7 | 196 | 81.3 |
| Tippecanoe | 11,383 | 8 | 5 | 0.0 | 89 | 71 | 0.6 | 1,260 | 11.1 | 10,047 | 88.3 |
| Tipton | 526 | 81 | 10 | 1.9 | 1 | 7 | 1.3 | 105 | 20.0 | 404 | 76.8 |
| Union | 169 | 90 | 2 | 1.2 | 4 | 6 | 3.6 | 21 | 12.4 | 140 | 82.8 |
| Vanderburgh | 12,523 | 6 | 19 | 0.2 | 76 | 100 | 0.8 | 1,616 | 12.9 | 10,788 | 86.1 |
| Vermillion | 577 | 78 | 4 | 0.7 | 12 | 18 | 3.1 | 74 | 12.8 | 481 | 83.4 |
| Vigo | 5,595 | 17 | 9 | 0.2 | 71 | 126 | 2.3 | 664 | 11.9 | 4,796 | 85.7 |
| Wabash | 1,345 | 50 | 7 | 0.5 | 24 | 38 | 2.8 | 131 | 9.7 | 1,169 | 86.9 |
| Warren | 328 | 86 | 1 | 0.3 | 51 | 7 | 2.1 | 22 | 6.7 | 298 | 90.9 |
| Warrick | 2,171 | 32 | 3 | 0.1 | 81 | 63 | 2.9 | 166 | 7.6 | 1,939 | 89.3 |
| Washington | 1,053 | 60 | 7 | 0.7 | 14 | 23 | 2.2 | 175 | 16.6 | 848 | 80.5 |
| Wayne | 3,465 | 23 | 9 | 0.3 | 60 | 72 | 2.1 | 412 | 11.9 | 2,972 | 85.8 |
| Wells | 1,023 | 61 | 4 | 0.4 | 38 | 23 | 2.2 | 126 | 12.3 | 870 | 85.0 |
| White | 1,402 | 47 | 8 | 0.6 | 20 | 30 | 2.1 | 126 | 9.0 | 1,238 | 88.3 |
| Whitley | 1,295 | 53 | 7 | 0.5 | 22 | 34 | 2.6 | 127 | 9.8 | 1,127 | 87.0 |
| Unknown | 3 | na | 0 | 0.0 | na | 0 | 0.0 | 0 | 0.0 | 3 | 100.0 |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) *Non-incapacitating* injuries include those reported as *non-incapacitating* and *possible* injuries.
2) *Other/no injury* counts include injury type values identified as *not reported, refused, unknown,* invalid and missing codes.

**Map 9.2.  Traffic fatalities per 100k population, by county, 2014**



| County | Rate |
|---|---|
| Lake | 9.4 |
| Porter | 7.8 |
| LaPorte | 18.8 |
| St. Joseph | 8.6 |
| Elkhart | 9.9 |
| LaGrange | 18.2 |
| Steuben | 17.5 |
| Starke | 21.7 |
| Marshall | 14.9 |
| Kosciusko | 10.2 |
| Noble | 14.7 |
| DeKalb | 21.2 |
| Newton | 21.2 |
| Jasper | 38.8 |
| Pulaski | 15.4 |
| Fulton | 4.9 |
| Whitley | 21.0 |
| Allen | 8.5 |
| Wabash | 21.7 |
| Huntington | 2.7 |
| White | 32.7 |
| Cass | 15.6 |
| Miami | 11.1 |
| Wells | 14.4 |
| Adams | 14.4 |
| Benton | 23.0 |
| Carroll | 30.1 |
| Howard | — |
| Grant | 11.7 |
| Blackford | 0 |
| Jay | 37.8 |
| Warren | 12.0 |
| Tippecanoe | 2.7 |
| Clinton | 9.2 |
| Tipton | 64.9 |
| Madison | 16.9 |
| Delaware | 12.8 |
| Randolph | 15.8 |
| Fountain | 24.0 |
| Montgomery | 7.9 |
| Boone | 21.0 |
| Hamilton | 4.6 |
| Henry | 18.4 |
| Wayne | 13.3 |
| Vermillion | — |
| Parke | 23.2 |
| Hendricks | 4.5 |
| Marion | 9.0 |
| Hancock | 6.9 |
| Rush | 11.8 |
| Fayette | 12.8 |
| Union | 27.6 |
| 25.5 | |
| Putnam | 23.9 |
| Vigo | 8.3 |
| Clay | 3.8 |
| Owen | 14.3 |
| Morgan | 15.8 |
| Johnson | 5.4 |
| Shelby | 13.5 |
| Franklin | 4.4 |
| Sullivan | 9.5 |
| Greene | 27.5 |
| Monroe | 4.9 |
| Brown | 33.4 |
| Bartholomew | 15.0 |
| Decatur | 22.6 |
| Ripley | 17.5 |
| Dearborn | 2.0 |
| Jennings | 14.3 |
| Jackson | 18.3 |
| Jefferson | 21.5 |
| Ohio | 16.6 |
| Switzerland | 38.3 |
| Knox | 13.2 |
| Daviess | 24.4 |
| Martin | 0 |
| Lawrence | 17.5 |
| Washington | 25.1 |
| Scott | 25.3 |
| Clark | 9.6 |
| Orange | 5.1 |
| Pike | 7.9 |
| Dubois | 16.5 |
| Crawford | 9.4 |
| Floyd | 6.6 |
| Harrison | 12.7 |
| Gibson | 17.8 |
| Vanderburgh | 10.4 |
| Warrick | 4.9 |
| Spencer | 9.6 |
| Perry | 20.6 |
| Posey | 15.7 |

**Median rate = 14.4**
**Mean rate = 15.6**
**n = 743 fatalities**

**Fatalities per 100,000 population**

| | |
|---|---|
| ☐ | 0.0 - 9.0 |
| ☐ | 9.1 - 14.3 |
| ☐ | 14.4 - 21.0 |
| ☐ | 21.1 - 64.9 |

**Sources:**
**Collisions: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015**
**Population 2014 estimates: U.S. Census Bureau, accessed from http://ww.stats.indiana.edu/ August 8, 2015**

## Table 9.3. Indiana speed-related collisions, by severity and county, 2014

| | All collisions | | | Fatal | | Non-fatal injury | | Property damage only | |
|---|---|---|---|---|---|---|---|---|---|
| | Speed-related collisions | Speed-related as % of total collisions | County rank (on %) | Count | Speed-related as % of total fatal collisions | Count | Speed-related as % of total non-fatal injury collisions | Count | Speed-related as % of total property damage collisions |
| **All counties** | **24,810** | **12.1** | **na** | **184** | **26.2** | **5,121** | **15.1** | **19,505** | **11.4** |
| Mean | 270 | 11.8 | na | 2 | 23.0 | 56 | 16.4 | 212 | 10.9 |
| Median | 127 | 10.9 | na | 1 | 20 | 29 | 16 | 96 | 10 |
| Minimum | 2 | 2.5 | na | 0 | 0.0 | 1 | 2.6 | 1 | 1.5 |
| Maximum | 3,301 | 28.9 | na | 20 | 100.0 | 697 | 37.5 | 2,626 | 27.9 |
| Adams | 74 | 9.9 | 59 | 1 | 20.0 | 11 | 11.6 | 62 | 9.6 |
| Allen | 1,475 | 12.1 | 38 | 10 | 33.3 | 317 | 13.5 | 1,148 | 11.7 |
| Bartholomew | 231 | 10.7 | 50 | 4 | 36.4 | 63 | 11.0 | 164 | 10.3 |
| Benton | 16 | 10.3 | 53 | 0 | 0.0 | 5 | 17.2 | 11 | 8.8 |
| Blackford | 13 | 3.8 | 91 | 0 | 0.0 | 1 | 2.6 | 12 | 3.9 |
| Boone | 234 | 12.4 | 34 | 2 | 18.2 | 47 | 17.7 | 185 | 11.5 |
| Brown | 80 | 15.0 | 23 | 0 | 0.0 | 21 | 23.1 | 59 | 13.4 |
| Carroll | 108 | 20.7 | 3 | 3 | 50.0 | 30 | 37.5 | 75 | 17.2 |
| Cass | 157 | 13.5 | 30 | 2 | 33.3 | 34 | 20.2 | 121 | 12.2 |
| Clark | 356 | 7.8 | 77 | 1 | 9.1 | 101 | 13.0 | 254 | 6.7 |
| Clay | 76 | 9.5 | 63 | 0 | 0.0 | 14 | 11.7 | 62 | 9.1 |
| Clinton | 190 | 16.4 | 16 | 0 | 0.0 | 31 | 19.6 | 159 | 15.9 |
| Crawford | 26 | 10.0 | 56 | 1 | 100.0 | 6 | 18.8 | 19 | 8.4 |
| Daviess | 49 | 14.2 | 28 | 1 | 14.3 | 17 | 15.7 | 31 | 13.5 |
| Dearborn | 211 | 10.8 | 47 | 0 | 0.0 | 53 | 22.4 | 158 | 9.2 |
| Decatur | 109 | 12.2 | 37 | 1 | 16.7 | 17 | 13.6 | 91 | 12.0 |
| DeKalb | 255 | 18.3 | 11 | 3 | 37.5 | 43 | 23.8 | 209 | 17.4 |
| Delaware | 449 | 10.7 | 49 | 4 | 26.7 | 82 | 12.0 | 363 | 10.4 |
| Dubois | 159 | 9.7 | 61 | 4 | 57.1 | 44 | 18.3 | 111 | 8.0 |
| Elkhart | 1,455 | 19.2 | 6 | 8 | 40.0 | 182 | 19.0 | 1,265 | 19.2 |
| Fayette | 26 | 5.9 | 84 | 2 | 66.7 | 5 | 9.1 | 19 | 5.0 |
| Floyd | 138 | 5.1 | 87 | 2 | 40.0 | 39 | 8.2 | 97 | 4.3 |
| Fountain | 50 | 10.6 | 52 | 0 | 0.0 | 9 | 16.1 | 41 | 10.0 |
| Franklin | 103 | 20.1 | 4 | 1 | 100.0 | 22 | 25.3 | 80 | 18.8 |
| Fulton | 61 | 11.2 | 43 | 0 | 0.0 | 11 | 18.0 | 50 | 10.4 |
| Gibson | 115 | 9.9 | 57 | 1 | 16.7 | 38 | 18.9 | 76 | 8.0 |
| Grant | 403 | 16.2 | 18 | 3 | 42.9 | 74 | 21.1 | 326 | 15.3 |
| Greene | 88 | 9.9 | 58 | 1 | 11.1 | 26 | 20.5 | 61 | 8.1 |
| Hamilton | 541 | 7.1 | 79 | 2 | 14.3 | 93 | 9.0 | 446 | 6.8 |
| Hancock | 205 | 12.5 | 33 | 1 | 20.0 | 40 | 15.6 | 164 | 11.9 |
| Harrison | 97 | 7.9 | 76 | 1 | 20.0 | 31 | 12.9 | 65 | 6.6 |
| Hendricks | 461 | 11.4 | 42 | 2 | 28.6 | 85 | 14.4 | 374 | 10.9 |
| Henry | 140 | 13.4 | 31 | 1 | 12.5 | 16 | 10.4 | 123 | 13.9 |
| Howard | 190 | 8.3 | 70 | 1 | 10.0 | 45 | 9.2 | 144 | 8.1 |
| Huntington | 175 | 14.2 | 27 | 0 | 0.0 | 33 | 16.8 | 142 | 13.7 |
| Jackson | 203 | 10.6 | 51 | 2 | 25.0 | 48 | 17.8 | 153 | 9.4 |
| Jasper | 251 | 18.4 | 9 | 2 | 18.2 | 52 | 23.6 | 197 | 17.4 |
| Jay | 34 | 4.8 | 90 | 0 | 0.0 | 7 | 7.9 | 27 | 4.4 |
| Jefferson | 88 | 8.8 | 68 | 2 | 28.6 | 19 | 12.6 | 67 | 8.0 |
| Jennings | 78 | 9.4 | 66 | 0 | 0.0 | 27 | 18.0 | 51 | 7.5 |
| Johnson | 302 | 9.4 | 65 | 1 | 14.3 | 56 | 9.6 | 245 | 9.3 |
| Knox | 113 | 12.1 | 39 | 0 | 0.0 | 34 | 17.9 | 79 | 10.7 |
| Kosciusko | 280 | 11.1 | 44 | 1 | 14.3 | 45 | 12.9 | 234 | 10.8 |
| LaGrange | 298 | 28.9 | 1 | 4 | 57.1 | 43 | 34.1 | 251 | 27.9 |
| Lake | 3,301 | 19.1 | 7 | 20 | 46.5 | 655 | 23.5 | 2,626 | 18.1 |
| LaPorte | 522 | 14.2 | 26 | 5 | 26.3 | 115 | 17.2 | 402 | 13.5 |
| Lawrence | 122 | 8.2 | 72 | 2 | 25.0 | 33 | 12.2 | 87 | 7.1 |
| Madison | 379 | 9.8 | 60 | 3 | 14.3 | 62 | 11.6 | 314 | 9.5 |

**Table 9.3.** (*continued*)

| | All collisions | | | Fatal | | Non-fatal injury | | Property damage only | |
|---|---|---|---|---|---|---|---|---|---|
| | Speed-related collisions | Speed-related as % of total collisions | County rank (on %) | Count | Speed-related as % of total fatal collisions | Count | Speed-related as % of total non-fatal injury collisions | Count | Speed-related as % of total property damage collisions |
| Marion | 2,877 | 9.5 | 64 | 20 | 25.3 | 697 | 12.9 | 2,160 | 8.7 |
| Marshall | 152 | 10.8 | 48 | 2 | 28.6 | 31 | 14.4 | 119 | 10.0 |
| Martin | 20 | 20.0 | 5 | 0 | 0.0 | 7 | 29.2 | 13 | 17.1 |
| Miami | 154 | 15.6 | 20 | 0 | 0.0 | 28 | 16.6 | 126 | 15.5 |
| Monroe | 418 | 10.0 | 55 | 2 | 28.6 | 86 | 10.5 | 330 | 9.9 |
| Montgomery | 134 | 12.3 | 35 | 2 | 66.7 | 28 | 15.7 | 104 | 11.5 |
| Morgan | 180 | 11.0 | 45 | 2 | 18.2 | 38 | 13.2 | 140 | 10.4 |
| Newton | 65 | 18.3 | 12 | 0 | 0.0 | 21 | 31.8 | 44 | 15.3 |
| Noble | 216 | 14.6 | 25 | 2 | 28.6 | 42 | 20.0 | 172 | 13.6 |
| Ohio | 2 | 2.5 | 92 | 0 | 0.0 | 1 | 9.1 | 1 | 1.5 |
| Orange | 48 | 8.1 | 75 | 0 | 0.0 | 17 | 19.1 | 31 | 6.1 |
| Owen | 56 | 10.9 | 46 | 1 | 33.3 | 10 | 12.2 | 45 | 10.5 |
| Parke | 59 | 11.7 | 41 | 1 | 25.0 | 9 | 13.4 | 49 | 11.3 |
| Perry | 23 | 5.3 | 86 | 0 | 0.0 | 10 | 14.1 | 13 | 3.6 |
| Pike | 33 | 17.6 | 13 | 0 | 0.0 | 10 | 24.4 | 23 | 15.9 |
| Porter | 807 | 15.7 | 19 | 2 | 16.7 | 169 | 17.8 | 636 | 15.3 |
| Posey | 114 | 18.4 | 10 | 1 | 25.0 | 26 | 30.6 | 87 | 16.4 |
| Pulaski | 26 | 6.0 | 83 | 0 | 0.0 | 6 | 11.3 | 20 | 5.3 |
| Putnam | 134 | 17.5 | 14 | 4 | 50.0 | 29 | 26.1 | 101 | 15.7 |
| Randolph | 34 | 6.2 | 82 | 0 | 0.0 | 3 | 4.9 | 31 | 6.4 |
| Ripley | 78 | 9.7 | 62 | 3 | 60.0 | 11 | 9.2 | 64 | 9.4 |
| Rush | 42 | 11.8 | 40 | 0 | 0.0 | 14 | 20.9 | 28 | 9.7 |
| St. Joseph | 1,028 | 13.0 | 32 | 6 | 26.1 | 196 | 13.9 | 826 | 12.8 |
| Scott | 55 | 7.7 | 78 | 2 | 33.3 | 15 | 9.6 | 38 | 6.9 |
| Shelby | 233 | 19.0 | 8 | 0 | 0.0 | 61 | 20.7 | 172 | 18.6 |
| Spencer | 29 | 4.9 | 88 | 0 | 0.0 | 9 | 9.4 | 20 | 4.1 |
| Starke | 50 | 8.1 | 74 | 1 | 20.0 | 14 | 15.2 | 35 | 6.7 |
| Steuben | 273 | 16.2 | 17 | 4 | 66.7 | 44 | 24.3 | 225 | 15.1 |
| Sullivan | 41 | 8.4 | 69 | 0 | 0.0 | 10 | 12.3 | 31 | 7.6 |
| Switzerland | 9 | 5.5 | 85 | 1 | 25.0 | 4 | 14.3 | 4 | 3.0 |
| Tippecanoe | 1,099 | 15.2 | 21 | 2 | 40.0 | 205 | 19.9 | 892 | 14.4 |
| Tipton | 88 | 24.4 | 2 | 3 | 50.0 | 14 | 18.2 | 71 | 25.5 |
| Union | 8 | 6.4 | 81 | 1 | 50.0 | 1 | 4.5 | 6 | 5.9 |
| Vanderburgh | 336 | 4.8 | 89 | 3 | 17.6 | 87 | 6.7 | 246 | 4.4 |
| Vermillion | 49 | 12.3 | 36 | 1 | 25.0 | 16 | 25.4 | 32 | 9.6 |
| Vigo | 320 | 9.0 | 67 | 3 | 33.3 | 64 | 11.0 | 253 | 8.5 |
| Wabash | 132 | 13.9 | 29 | 2 | 28.6 | 30 | 23.8 | 100 | 12.2 |
| Warren | 23 | 8.3 | 71 | 0 | 0.0 | 5 | 20.8 | 18 | 7.1 |
| Warrick | 116 | 8.1 | 73 | 0 | 0.0 | 21 | 11.7 | 95 | 7.6 |
| Washington | 52 | 7.1 | 80 | 3 | 50.0 | 19 | 13.6 | 30 | 5.1 |
| Wayne | 346 | 14.6 | 24 | 1 | 12.5 | 77 | 21.9 | 268 | 13.3 |
| Wells | 70 | 10.2 | 54 | 1 | 33.3 | 14 | 13.3 | 55 | 9.5 |
| White | 162 | 16.5 | 15 | 1 | 14.3 | 22 | 18.2 | 139 | 16.3 |
| Whitley | 132 | 15.2 | 22 | 2 | 40.0 | 18 | 15.3 | 112 | 15.0 |

**Source:** Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) Percent calculations represent the percent of total county collisions (presented in Table 9.1) in each injury category that are *speed-related*.
2) *Non-fatal injury* collisions include collisions with *incapacitating*, *non-incapacitating*, and *possible* injuries.
3) See glossary for definition of *speed-related*.

**Map 9.3. Percentage of county collisions that were speed-related, 2014**

| County | Value |
|--------|-------|
| Lake | 19.1 |
| Porter | 15.7 |
| LaPorte | 14.2 |
| St. Joseph | 13.0 |
| Elkhart | 19.2 |
| LaGrange | 28.9 |
| Steuben | 16.2 |
| Newton | 18.3 |
| Jasper | 18.4 |
| Starke | 8.1 |
| Marshall | 10.8 |
| Kosciusko | 11.1 |
| Noble | 14.6 |
| DeKalb | 18.3 |
| Pulaski | 6.0 |
| Fulton | 11.2 |
| Whitley | 15.2 |
| Allen | 12.1 |
| Benton | 10.3 |
| White | 16.5 |
| Cass | 13.5 |
| Miami | 15.6 |
| Wabash | 13.9 |
| Huntington | 14.2 |
| Wells | 10.2 |
| Adams | 9.9 |
| Warren | 8.3 |
| Carroll | 20.7 |
| Howard | 8.3 |
| Grant | 16.2 |
| Blackford | 3.8 |
| Jay | 4.8 |
| Tippecanoe | 15.2 |
| Clinton | 16.4 |
| Tipton | 24.4 |
| Madison | 9.8 |
| Delaware | 10.7 |
| Randolph | 6.2 |
| Fountain | 10.6 |
| Montgomery | 12.3 |
| Boone | 12.4 |
| Hamilton | 7.1 |
| Henry | 13.4 |
| Wayne | 14.6 |
| Vermillion | 12.3 |
| Parke | 11.7 |
| Putnam | 17.5 |
| Hendricks | 11.4 |
| Marion | 9.5 |
| Hancock | 12.5 |
| Rush | 11.8 |
| Fayette | 5.9 |
| Union | 6.4 |
| Vigo | 9.0 |
| Clay | 9.5 |
| Owen | 10.9 |
| Morgan | 11.0 |
| Johnson | 9.4 |
| Shelby | 19.0 |
| Decatur | 12.2 |
| Franklin | 20.1 |
| Sullivan | 8.4 |
| Greene | 9.9 |
| Monroe | 10.0 |
| Brown | 15.0 |
| Bartholomew | 10.7 |
| Jennings | 9.4 |
| Ripley | 9.7 |
| Dearborn | 10.8 |
| Ohio | 2.5 |
| Knox | 12.1 |
| Daviess | 14.2 |
| Martin | 20.0 |
| Lawrence | 8.2 |
| Jackson | 10.6 |
| Jefferson | 8.8 |
| Switzerland | 5.5 |
| Scott | 7.7 |
| Clark | 7.8 |
| Pike | 17.6 |
| Dubois | 9.7 |
| Orange | 8.1 |
| Washington | 7.1 |
| Floyd | 5.1 |
| Gibson | 9.9 |
| Crawford | 10.0 |
| Harrison | 7.9 |
| Posey | 18.4 |
| Vanderburgh | 4.8 |
| Warrick | 8.1 |
| Spencer | 4.9 |
| Perry | 5.3 |

Median percent = 10.9
Mean percent = 11.8
n = 24,810 speed-related collisions
(where county was known)

**Percent of total county collisions**

| | |
|--|--|
| (white) | 2.5 - 8.3 |
| (gray) | 8.4 - 10.8 |
| (light blue) | 10.9 - 14.6 |
| (dark blue) | 14.7 - 28.9 |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES) as of March 23, 2015

## Table 9.4. Indiana collisions involving an alcohol-impaired driver, by severity and county, 2014

| County | Total | | Fatal | | Non-fatal injury | | Property damage | |
|---|---|---|---|---|---|---|---|---|
| | Count | Alcohol-impaired as % of total collisions | Count | Alcohol-impaired as % of total fatal collisions | Count | Alcohol-impaired as % of total non-fatal injury collisions | Count | Alcohol-impaired as % of total property damage collisions |
| All counties | 4,574 | 2.2 | 94 | 13.4 | 1,290 | 3.8 | 3,190 | 1.9 |
| Mean | 50 | 2.5 | 1 | 14.5 | 14 | 4.3 | 35 | 2.1 |
| Median | 23 | 2.3 | 1 | 9.1 | 6 | 3.9 | 16 | 1.9 |
| Minimum | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Maximum | 500 | 7.0 | 11 | 100.0 | 121 | 17.2 | 376 | 7.6 |
| Adams | 13 | 1.7 | 1 | 20.0 | 3 | 3.2 | 9 | 1.4 |
| Allen | 348 | 2.9 | 7 | 23.3 | 121 | 5.2 | 220 | 2.2 |
| Bartholomew | 55 | 2.5 | 1 | 9.1 | 19 | 3.3 | 35 | 2.2 |
| Benton | 6 | 3.8 | 0 | 0.0 | 5 | 17.2 | 1 | 0.8 |
| Blackford | 8 | 2.3 | 0 | 0.0 | 1 | 2.6 | 7 | 2.3 |
| Boone | 25 | 1.3 | 0 | 0.0 | 5 | 1.9 | 20 | 1.2 |
| Brown | 14 | 2.6 | 0 | 0.0 | 6 | 6.6 | 8 | 1.8 |
| Carroll | 10 | 1.9 | 1 | 16.7 | 5 | 6.3 | 4 | 0.9 |
| Cass | 22 | 1.9 | 3 | 50.0 | 3 | 1.8 | 16 | 1.6 |
| Clark | 75 | 1.6 | 2 | 18.2 | 22 | 2.8 | 51 | 1.3 |
| Clay | 25 | 3.1 | 1 | 100.0 | 8 | 6.7 | 16 | 2.3 |
| Clinton | 30 | 2.6 | 0 | 0.0 | 3 | 1.9 | 27 | 2.7 |
| Crawford | 8 | 3.1 | 0 | 0.0 | 1 | 3.1 | 7 | 3.1 |
| Daviess | 14 | 4.1 | 0 | 0.0 | 4 | 3.7 | 10 | 4.3 |
| Dearborn | 52 | 2.7 | 1 | 100.0 | 9 | 3.8 | 42 | 2.5 |
| Decatur | 13 | 1.5 | 0 | 0.0 | 6 | 4.8 | 7 | 0.9 |
| DeKalb | 40 | 2.9 | 1 | 12.5 | 9 | 5.0 | 30 | 2.5 |
| Delaware | 92 | 2.2 | 2 | 13.3 | 30 | 4.4 | 60 | 1.7 |
| Dubois | 35 | 2.1 | 1 | 14.3 | 7 | 2.9 | 27 | 1.9 |
| Elkhart | 168 | 2.2 | 3 | 15.0 | 38 | 4.0 | 127 | 1.9 |
| Fayette | 15 | 3.4 | 0 | 0.0 | 4 | 7.3 | 11 | 2.9 |
| Floyd | 68 | 2.5 | 0 | 0.0 | 22 | 4.6 | 46 | 2.1 |
| Fountain | 15 | 3.2 | 0 | 0.0 | 3 | 5.4 | 12 | 2.9 |
| Franklin | 14 | 2.7 | 0 | 0.0 | 4 | 4.6 | 10 | 2.4 |
| Fulton | 10 | 1.8 | 0 | 0.0 | 0 | 0.0 | 10 | 2.1 |
| Gibson | 33 | 2.8 | 0 | 0.0 | 18 | 9.0 | 15 | 1.6 |
| Grant | 54 | 2.2 | 1 | 14.3 | 6 | 1.7 | 47 | 2.2 |
| Greene | 16 | 1.8 | 1 | 11.1 | 3 | 2.4 | 12 | 1.6 |
| Hamilton | 164 | 2.2 | 1 | 7.1 | 42 | 4.1 | 121 | 1.9 |
| Hancock | 57 | 3.5 | 1 | 20.0 | 11 | 4.3 | 45 | 3.3 |
| Harrison | 33 | 2.7 | 1 | 20.0 | 12 | 5.0 | 20 | 2.0 |
| Hendricks | 87 | 2.2 | 2 | 28.6 | 25 | 4.2 | 60 | 1.7 |
| Henry | 24 | 2.3 | 0 | 0.0 | 7 | 4.5 | 17 | 1.9 |
| Howard | 70 | 3.1 | 3 | 30.0 | 17 | 3.5 | 50 | 2.8 |
| Huntington | 24 | 1.9 | 0 | 0.0 | 6 | 3.1 | 18 | 1.7 |
| Jackson | 38 | 2.0 | 0 | 0.0 | 8 | 3.0 | 30 | 1.8 |
| Jasper | 31 | 2.3 | 1 | 9.1 | 16 | 7.3 | 14 | 1.2 |
| Jay | 12 | 1.7 | 2 | 33.3 | 2 | 2.2 | 8 | 1.3 |
| Jefferson | 21 | 2.1 | 0 | 0.0 | 4 | 2.6 | 17 | 2.0 |
| Jennings | 14 | 1.7 | 0 | 0.0 | 3 | 2.0 | 11 | 1.6 |
| Johnson | 64 | 2.0 | 1 | 14.3 | 19 | 3.2 | 44 | 1.7 |
| Knox | 27 | 2.9 | 0 | 0.0 | 7 | 3.7 | 20 | 2.7 |
| Kosciusko | 59 | 2.3 | 0 | 0.0 | 17 | 4.9 | 42 | 1.9 |
| LaGrange | 26 | 2.5 | 1 | 14.3 | 6 | 4.8 | 19 | 2.1 |
| Lake | 375 | 2.2 | 11 | 25.6 | 118 | 4.2 | 246 | 1.7 |
| LaPorte | 108 | 2.9 | 5 | 26.3 | 32 | 4.8 | 71 | 2.4 |
| Lawrence | 34 | 2.3 | 1 | 12.5 | 14 | 5.2 | 19 | 1.6 |
| Madison | 74 | 1.9 | 2 | 9.5 | 15 | 2.8 | 57 | 1.7 |

**Table 9.4.** *(continued)*

| County | Total Count | Total Alcohol-impaired as % of total collisions | Fatal Count | Fatal Alcohol-impaired as % of total fatal collisions | Non-fatal injury Count | Non-fatal injury Alcohol-impaired as % of total non-fatal injury collisions | Property damage Count | Property damage Alcohol-impaired as % of total property damage collisions |
|---|---|---|---|---|---|---|---|---|
| Marion | 500 | 1.6 | 4 | 5.1 | 120 | 2.2 | 376 | 1.5 |
| Marshall | 41 | 2.9 | 2 | 28.6 | 15 | 7.0 | 24 | 2.0 |
| Martin | 1 | 1.0 | 0 | 0.0 | 0 | 0.0 | 1 | 1.3 |
| Miami | 22 | 2.2 | 1 | 25.0 | 8 | 4.7 | 13 | 1.6 |
| Monroe | 74 | 1.8 | 0 | 0.0 | 22 | 2.7 | 52 | 1.6 |
| Montgomery | 15 | 1.4 | 1 | 33.3 | 3 | 1.7 | 11 | 1.2 |
| Morgan | 22 | 1.3 | 0 | 0.0 | 7 | 2.4 | 15 | 1.1 |
| Newton | 10 | 2.8 | 1 | 33.3 | 2 | 3.0 | 7 | 2.4 |
| Noble | 38 | 2.6 | 1 | 14.3 | 12 | 5.7 | 25 | 2.0 |
| Ohio | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Orange | 14 | 2.4 | 0 | 0.0 | 3 | 3.4 | 11 | 2.2 |
| Owen | 14 | 2.7 | 1 | 33.3 | 3 | 3.7 | 10 | 2.3 |
| Parke | 18 | 3.6 | 0 | 0.0 | 5 | 7.5 | 13 | 3.0 |
| Perry | 20 | 4.6 | 0 | 0.0 | 8 | 11.3 | 12 | 3.3 |
| Pike | 13 | 7.0 | 0 | 0.0 | 2 | 4.9 | 11 | 7.6 |
| Porter | 167 | 3.3 | 2 | 16.7 | 56 | 5.9 | 109 | 2.6 |
| Posey | 13 | 2.1 | 0 | 0.0 | 3 | 3.5 | 10 | 1.9 |
| Pulaski | 12 | 2.8 | 0 | 0.0 | 4 | 7.5 | 8 | 2.1 |
| Putnam | 16 | 2.1 | 1 | 12.5 | 1 | 0.9 | 14 | 2.2 |
| Randolph | 6 | 1.1 | 0 | 0.0 | 1 | 1.6 | 5 | 1.0 |
| Ripley | 23 | 2.9 | 4 | 80.0 | 0 | 0.0 | 19 | 2.8 |
| Rush | 9 | 2.5 | 0 | 0.0 | 4 | 6.0 | 5 | 1.7 |
| St. Joseph | 183 | 2.3 | 4 | 17.4 | 57 | 4.0 | 122 | 1.9 |
| Scott | 12 | 1.7 | 0 | 0.0 | 2 | 1.3 | 10 | 1.8 |
| Shelby | 27 | 2.2 | 0 | 0.0 | 13 | 4.4 | 14 | 1.5 |
| Spencer | 15 | 2.6 | 0 | 0.0 | 6 | 6.3 | 9 | 1.8 |
| Starke | 6 | 1.0 | 0 | 0.0 | 1 | 1.1 | 5 | 1.0 |
| Steuben | 35 | 2.1 | 3 | 50.0 | 6 | 3.3 | 26 | 1.7 |
| Sullivan | 15 | 3.1 | 1 | 50.0 | 8 | 9.9 | 6 | 1.5 |
| Switzerland | 6 | 3.6 | 0 | 0.0 | 2 | 7.1 | 4 | 3.0 |
| Tippecanoe | 154 | 2.1 | 1 | 20.0 | 42 | 4.1 | 111 | 1.8 |
| Tipton | 10 | 2.8 | 1 | 16.7 | 5 | 6.5 | 4 | 1.4 |
| Union | 7 | 5.6 | 0 | 0.0 | 0 | 0.0 | 7 | 6.9 |
| Vanderburgh | 133 | 1.9 | 2 | 11.8 | 38 | 2.9 | 93 | 1.6 |
| Vermillion | 14 | 3.5 | 0 | 0.0 | 2 | 3.2 | 12 | 3.6 |
| Vigo | 92 | 2.6 | 0 | 0.0 | 26 | 4.5 | 66 | 2.2 |
| Wabash | 30 | 3.1 | 0 | 0.0 | 11 | 8.7 | 19 | 2.3 |
| Warren | 5 | 1.8 | 1 | 100.0 | 2 | 8.3 | 2 | 0.8 |
| Warrick | 25 | 1.8 | 1 | 33.3 | 7 | 3.9 | 17 | 1.4 |
| Washington | 23 | 3.1 | 1 | 16.7 | 12 | 8.6 | 10 | 1.7 |
| Wayne | 59 | 2.5 | 0 | 0.0 | 11 | 3.1 | 48 | 2.4 |
| Wells | 15 | 2.2 | 1 | 33.3 | 7 | 6.7 | 7 | 1.2 |
| White | 22 | 2.2 | 1 | 14.3 | 4 | 3.3 | 17 | 2.0 |
| Whitley | 18 | 2.1 | 1 | 20.0 | 3 | 2.5 | 14 | 1.9 |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES) as of March 23, 2015

Notes:
1) Percent calculations represent the percent of total county collisions (presented in Table 9.1) in each injury category that are *alcohol-impaired*.
2) Includes collisions where at least one *alcohol-impaired* driver was involved.
3) *Non-fatal injury* includes *incapacitating, non-incapacitating,* and *possible* injury collisions.
4) See glossary for definition of *alcohol-impaired*.

**Map 9.4. Percentage of county collisions that involved an alcohol-impaired driver, 2014**

| County | Value |
|---|---|
| LaPorte | 2.9 |
| St. Joseph | 2.3 |
| Elkhart | 2.2 |
| LaGrange | 2.5 |
| Steuben | 2.1 |
| Lake | 2.2 |
| Porter | 3.3 |
| Starke | 1.0 |
| Marshall | 2.9 |
| Kosciusko | 2.3 |
| Noble | 2.6 |
| DeKalb | 2.9 |
| Newton | 2.8 |
| Jasper | 2.3 |
| Pulaski | 2.8 |
| Fulton | 1.8 |
| Whitley | 2.1 |
| Allen | 2.9 |
| Benton | 3.8 |
| White | 2.2 |
| Cass | 1.9 |
| Miami | 2.2 |
| Wabash | 3.1 |
| Huntington | 1.9 |
| Wells | 2.2 |
| Adams | 1.7 |
| Warren | 1.8 |
| Tippecanoe | 2.1 |
| Carroll | 1.9 |
| Howard | 3.1 |
| Grant | 2.2 |
| Blackford | 2.3 |
| Jay | 1.7 |
| Fountain | 3.2 |
| Clinton | 2.6 |
| Tipton | 2.8 |
| Madison | 1.9 |
| Delaware | 2.2 |
| Randolph | 1.1 |
| Vermillion | 3.5 |
| Montgomery | 1.4 |
| Boone | 1.3 |
| Hamilton | 2.2 |
| Henry | 2.3 |
| Wayne | 2.5 |
| Parke | 3.6 |
| Hendricks | 2.2 |
| Marion | 1.6 |
| Hancock | 3.5 |
| Rush | 2.5 |
| Fayette | 3.4 |
| Union | 5.6 |
| Putnam | 2.1 |
| Morgan | 1.3 |
| Johnson | 2.0 |
| Shelby | 2.2 |
| Franklin | 2.7 |
| Vigo | 2.6 |
| Clay | 3.1 |
| Owen | 2.7 |
| Monroe | 1.8 |
| Brown | 2.6 |
| Bartholomew | 2.5 |
| Decatur | 1.5 |
| Ripley | 2.9 |
| Dearborn | 2.7 |
| Sullivan | 3.1 |
| Greene | 1.8 |
| Jennings | 1.7 |
| Ohio | 0 |
| Knox | 2.9 |
| Daviess | 4.1 |
| Martin | 1.0 |
| Lawrence | 2.3 |
| Jackson | 2.0 |
| Jefferson | 2.1 |
| Switzerland | 3.6 |
| Scott | 1.7 |
| Orange | 2.4 |
| Washington | 3.1 |
| Clark | 1.6 |
| Pike | 7.0 |
| Dubois | 2.1 |
| Crawford | 3.1 |
| Floyd | 2.5 |
| Gibson | 2.8 |
| Harrison | 2.7 |
| Posey | 2.1 |
| Vanderburgh | 1.9 |
| Warrick | 1.8 |
| Spencer | 2.6 |
| Perry | 4.6 |

Median percent = 2.3
Mean percent = 2.5
n = 4,574 alcohol-impaired collisions
(where county was known)

Percent of total county collisions
involving an alcohol-impaired driver

- 0.0 - 1.9
- 2.0 - 2.2
- 2.3 - 2.9
- 3.0 - 7.0

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES) as of March 23, 2015

**Map 9.5. Percentage of county collisions that involved deer, 2014**

| County | Value |
|---|---|
| Lake | 1.4 |
| Porter | 6.9 |
| LaPorte | 7.0 |
| St. Joseph | 3.7 |
| Elkhart | 5.1 |
| LaGrange | 19.5 |
| Steuben | 24.0 |
| Noble | 21.5 |
| DeKalb | 20.2 |
| Starke | 34.5 |
| Marshall | 20.5 |
| Kosciusko | 17.0 |
| Whitley | 16.2 |
| Allen | 3.7 |
| Newton | 23.0 |
| Jasper | 16.8 |
| Pulaski | 47.5 |
| Fulton | 27.9 |
| Wabash | 23.7 |
| Huntington | 16.3 |
| Wells | 16.7 |
| Adams | 11.9 |
| White | 18.2 |
| Cass | 17.7 |
| Miami | 14.4 |
| Benton | 17.9 |
| Carroll | 23.2 |
| Grant | 7.7 |
| Blackford | 14.5 |
| Jay | 17.7 |
| Warren | 41.7 |
| Tippecanoe | 4.5 |
| Howard | 6.0 |
| Clinton | 10.4 |
| Tipton | 11.1 |
| Madison | 4.4 |
| Delaware | 3.9 |
| Randolph | 15.9 |
| Fountain | 24.8 |
| Montgomery | 17.7 |
| Boone | 7.6 |
| Hamilton | 2.6 |
| Henry | 11.8 |
| Wayne | 9.1 |
| Vermillion | 16.3 |
| Parke | 28.4 |
| Hendricks | 5.2 |
| Marion | 0.4 |
| Hancock | 6.0 |
| Rush | 17.6 |
| Fayette | 10.9 |
| Union | 13.6 |
| Putnam | 9.8 |
| Vigo | 6.7 |
| Clay | 15.5 |
| Owen | 16.1 |
| Morgan | 9.3 |
| Johnson | 4.2 |
| Shelby | 7.2 |
| Decatur | 10.7 |
| Franklin | 15.0 |
| Monroe | 3.0 |
| Brown | 19.1 |
| Bartholomew | 8.1 |
| Ripley | 21.3 |
| Dearborn | 18.2 |
| Sullivan | 22.9 |
| Greene | 27.3 |
| Jennings | 6.7 |
| Ohio | 27.8 |
| Lawrence | 11.6 |
| Jackson | 13.2 |
| Jefferson | 7.8 |
| Switzerland | 12.1 |
| Knox | 12.2 |
| Daviess | 10.4 |
| Martin | 12 |
| Scott | 8.1 |
| Orange | 23.7 |
| Washington | 27.3 |
| Clark | 5.5 |
| Pike | 17.1 |
| Dubois | 16.8 |
| Crawford | 29.2 |
| Floyd | 5.4 |
| Gibson | 14.5 |
| Warrick | 17.4 |
| Spencer | 32.8 |
| Perry | 20.6 |
| Harrison | 22.7 |
| Posey | 22.0 |
| Vanderburgh | 2.9 |

Median percent = 14.8
Mean percent = 15.0
n = 15,114 deer-involved collisions
(where county was known)

**Percent of total county collisions involving deer**

| | |
|---|---|
| ☐ | 0.4 - 7.6 |
| ☐ | 7.7 - 14.7 |
| ☐ | 14.8 - 20.2 |
| ■ | 20.3 - 47.5 |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES) as of March 23, 2015

Map 9.6.  Work zone collisions per 1,000 total county collisions, 2014



| County | Value |
|--------|-------|
| St. Joseph | 10.0 |
| LaPorte | 18.5 |
| Elkhart | 12.7 |
| LaGrange | 4.8 |
| Steuben | 6.5 |
| Porter | 46.6 |
| Lake | 22.7 |
| Starke | 3.2 |
| Marshall | 15.6 |
| Kosciusko | 2.4 |
| Noble | 0.7 |
| DeKalb | 9.3 |
| Newton | 2.8 |
| Jasper | 8.8 |
| Pulaski | 0 |
| Fulton | 5.5 |
| Whitley | 21.9 |
| Allen | 23.9 |
| Wabash | 0 |
| Benton | 76.9 |
| White | 11.2 |
| Cass | 0.9 |
| Miami | 7.1 |
| Huntington | 5.7 |
| Wells | 8.7 |
| Adams | 1.3 |
| Warren | 0 |
| Carroll | 5.7 |
| Howard | 8.8 |
| Grant | 2.0 |
| Blackford | 0 |
| Jay | 2.8 |
| Tippecanoe | 10.9 |
| Clinton | 12.9 |
| Tipton | 0 |
| Madison | 8.3 |
| Delaware | 6.9 |
| Randolph | 5.5 |
| Fountain | 4.2 |
| Montgomery | 26.6 |
| Boone | 7.9 |
| Hamilton | 71.3 |
| Henry | 9.6 |
| Wayne | 11.8 |
| Vermillion | 2.5 |
| Parke | 0 |
| Hendricks | 6.2 |
| Marion | 22.5 |
| Hancock | 40.1 |
| Rush | 8.4 |
| Fayette | 4.6 |
| Union | 8.0 |
| Putnam | 11.8 |
| Morgan | 10.4 |
| Johnson | 9.6 |
| Shelby | 0.8 |
| Franklin | 5.8 |
| Vigo | 34.6 |
| Clay | 49.9 |
| Owen | 9.7 |
| Brown | 9.3 |
| Bartholomew | 8.8 |
| Decatur | 7.9 |
| Monroe | 15.4 |
| Ripley | 8.7 |
| Dearborn | 7.2 |
| Sullivan | 10.2 |
| Greene | 7.9 |
| Jennings | 12.0 |
| Ohio | 38.0 |
| Lawrence | 9.4 |
| Jackson | 81.8 |
| Jefferson | 1.0 |
| Switzerland | 6.1 |
| Knox | 3.2 |
| Daviess | 8.7 |
| Martin | 10.0 |
| Washington | 2.7 |
| Scott | 47.6 |
| Orange | 52.1 |
| Clark | 58.6 |
| Pike | 5.3 |
| Dubois | 6.7 |
| Crawford | 7.7 |
| Floyd | 7.4 |
| Gibson | 21.6 |
| Harrison | 3.2 |
| Vanderburgh | 16.4 |
| Posey | 3.2 |
| Warrick | 7.7 |
| Spencer | 1.7 |
| Perry | 6.9 |

Median rate = 8.1
Mean rate = 13.5
n = 3,979 work zone collisions
(where county was known)

Interstates

Per 1,000 county collisions

| | Range |
|--|-------|
| (white) | 0.0 - 4.2 |
| (gray) | 4.3 - 8.0 |
| (light blue) | 8.1 - 12.0 |
| (dark blue) | 12.1 - 81.8 |

Source:  Indiana State Police Automated Reporting Information Exchange System (ARIES) as of March 23, 2015

**Table 9.5.  Vehicle occupants injured in Indiana collisions, by injury status, restraint use, and county, 2014**

| | Fatal | | | Incapacitating | | | Non-incapacitating | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | Unrestrained | % Unrestrained | Total | Unrestrained | % Unrestrained | Total | Unrestrained | % Unrestrained |
| **All counties** | **654** | **275** | **42.0** | **5,094** | **1,003** | **19.7** | **39,070** | **3,426** | **8.8** |
| Mean | 7 | 3 | 42.8 | 55 | 11 | 20.5 | 425 | 37 | 12.0 |
| Median | 5 | 2 | 43 | 35 | 8 | 19 | 174 | 19 | 11 |
| Minimum | 0 | 0 | na | 0 | 0 | 0.0 | 12 | 2 | 4.0 |
| Maximum | 62 | 27 | 100.0 | 483 | 105 | 51.4 | 6,562 | 482 | 27.0 |
| Adams | 5 | 3 | 60.0 | 28 | 8 | 28.6 | 96 | 14 | 14.6 |
| Allen | 24 | 14 | 58.3 | 302 | 50 | 16.6 | 2,739 | 182 | 6.6 |
| Bartholomew | 10 | 3 | 30.0 | 85 | 8 | 9.4 | 675 | 58 | 8.6 |
| Benton | 1 | 0 | 0.0 | 10 | 2 | 20.0 | 28 | 3 | 10.7 |
| Blackford | 0 | 0 | 0.0 | 11 | 1 | 9.1 | 43 | 7 | 16.3 |
| Boone | 13 | 3 | 23.1 | 51 | 8 | 15.7 | 298 | 14 | 4.7 |
| Brown | 4 | 3 | 75.0 | 14 | 2 | 14.3 | 100 | 21 | 21.0 |
| Carroll | 6 | 1 | 16.7 | 19 | 4 | 21.1 | 101 | 19 | 18.8 |
| Cass | 6 | 2 | 33.3 | 18 | 5 | 27.8 | 216 | 20 | 9.3 |
| Clark | 8 | 7 | 87.5 | 109 | 24 | 22.0 | 947 | 86 | 9.1 |
| Clay | 1 | 0 | 0.0 | 15 | 1 | 6.7 | 139 | 10 | 7.2 |
| Clinton | 3 | 1 | 33.3 | 33 | 11 | 33.3 | 165 | 14 | 8.5 |
| Crawford | 1 | 1 | 100.0 | 3 | 0 | 0.0 | 37 | 10 | 27.0 |
| Daviess | 8 | 4 | 50.0 | 13 | 0 | 0.0 | 133 | 31 | 23.3 |
| Dearborn | 1 | 0 | 0.0 | 61 | 9 | 14.8 | 252 | 23 | 9.1 |
| Decatur | 6 | 3 | 50.0 | 37 | 19 | 51.4 | 119 | 18 | 15.1 |
| DeKalb | 9 | 6 | 66.7 | 53 | 9 | 17.0 | 197 | 17 | 8.6 |
| Delaware | 13 | 6 | 46.2 | 112 | 26 | 23.2 | 783 | 74 | 9.5 |
| Dubois | 7 | 1 | 14.3 | 44 | 9 | 20.5 | 278 | 18 | 6.5 |
| Elkhart | 15 | 5 | 33.3 | 181 | 23 | 12.7 | 1,016 | 104 | 10.2 |
| Fayette | 2 | 1 | 0.0 | 7 | 1 | 14.3 | 74 | 7 | 9.5 |
| Floyd | 3 | 2 | 66.7 | 77 | 12 | 15.6 | 556 | 44 | 7.9 |
| Fountain | 4 | 0 | 0.0 | 15 | 1 | 6.7 | 66 | 10 | 15.2 |
| Franklin | 1 | 0 | 0.0 | 40 | 6 | 15.0 | 75 | 18 | 24.0 |
| Fulton | 1 | 0 | 0.0 | 9 | 2 | 22.2 | 62 | 12 | 19.4 |
| Gibson | 5 | 4 | 80.0 | 46 | 8 | 17.4 | 225 | 13 | 5.8 |
| Grant | 8 | 5 | 62.5 | 41 | 11 | 26.8 | 408 | 41 | 10.0 |
| Greene | 9 | 3 | 33.3 | 37 | 9 | 24.3 | 133 | 30 | 22.6 |
| Hamilton | 12 | 4 | 33.3 | 135 | 16 | 11.9 | 1,204 | 58 | 4.8 |
| Hancock | 5 | 1 | 20.0 | 42 | 7 | 16.7 | 324 | 13 | 4.0 |
| Harrison | 5 | 4 | 80.0 | 46 | 10 | 21.7 | 326 | 69 | 21.2 |
| Hendricks | 5 | 2 | 40.0 | 117 | 18 | 15.4 | 660 | 48 | 7.3 |
| Henry | 7 | 3 | 42.9 | 35 | 9 | 25.7 | 175 | 12 | 6.9 |
| Howard | 9 | 6 | 66.7 | 81 | 16 | 19.8 | 563 | 60 | 10.7 |
| Huntington | 1 | 0 | 0.0 | 33 | 6 | 18.2 | 217 | 24 | 11.1 |
| Jackson | 8 | 1 | 12.5 | 53 | 12 | 22.6 | 278 | 33 | 11.9 |
| Jasper | 13 | 2 | 15.4 | 48 | 15 | 31.3 | 256 | 29 | 11.3 |
| Jay | 8 | 5 | 62.5 | 10 | 0 | 0.0 | 96 | 8 | 8.3 |
| Jefferson | 6 | 2 | 33.3 | 33 | 10 | 30.3 | 170 | 21 | 12.4 |
| Jennings | 4 | 2 | 50.0 | 39 | 5 | 12.8 | 191 | 15 | 7.9 |
| Johnson | 8 | 2 | 25.0 | 72 | 10 | 13.9 | 691 | 56 | 8.1 |
| Knox | 5 | 5 | 100.0 | 37 | 6 | 16.2 | 206 | 22 | 10.7 |
| Kosciusko | 5 | 0 | 0.0 | 30 | 6 | 20.0 | 455 | 48 | 10.5 |
| LaGrange | 6 | 3 | 50.0 | 17 | 3 | 17.6 | 148 | 19 | 12.8 |
| Lake | 39 | 16 | 41.0 | 328 | 58 | 17.7 | 3,260 | 171 | 5.2 |
| LaPorte | 19 | 7 | 36.8 | 119 | 21 | 17.6 | 800 | 64 | 8.0 |
| Lawrence | 8 | 6 | 75.0 | 70 | 16 | 22.9 | 301 | 29 | 9.6 |
| Madison | 19 | 3 | 15.8 | 94 | 14 | 14.9 | 619 | 61 | 9.9 |

**Table 9.5.** (*continued*)

| | Fatal | | | Incapacitating | | | Non-incapacitating | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | Unrestrained | % Unrestrained | Total | Unrestrained | % Unrestrained | Total | Unrestrained | % Unrestrained |
| Marion | 62 | 27 | 43.5 | 483 | 105 | 21.7 | 6,562 | 482 | 7.3 |
| Marshall | 7 | 4 | 57.1 | 30 | 8 | 26.7 | 273 | 32 | 11.7 |
| Martin | 0 | 0 | 0.0 | 6 | 2 | 33.3 | 25 | 3 | 12.0 |
| Miami | 4 | 2 | 50.0 | 36 | 8 | 22.2 | 187 | 25 | 13.4 |
| Monroe | 5 | 3 | 60.0 | 124 | 20 | 16.1 | 826 | 75 | 9.1 |
| Montgomery | 3 | 1 | 33.3 | 61 | 9 | 14.8 | 178 | 26 | 14.6 |
| Morgan | 11 | 2 | 18.2 | 53 | 10 | 18.9 | 336 | 21 | 6.3 |
| Newton | 3 | 1 | 33.3 | 13 | 4 | 30.8 | 77 | 9 | 11.7 |
| Noble | 7 | 3 | 42.9 | 85 | 14 | 16.5 | 207 | 21 | 10.1 |
| Ohio | 1 | 1 | 100.0 | 0 | 0 | 0.0 | 12 | 2 | 16.7 |
| Orange | 1 | 1 | 100.0 | 31 | 12 | 38.7 | 85 | 17 | 20.0 |
| Owen | 2 | 1 | 50.0 | 24 | 7 | 29.2 | 87 | 9 | 10.3 |
| Parke | 4 | 1 | 25.0 | 20 | 4 | 20.0 | 79 | 19 | 24.1 |
| Perry | 4 | 1 | 25.0 | 14 | 7 | 50.0 | 89 | 17 | 19.1 |
| Pike | 1 | 1 | 100.0 | 5 | 2 | 40.0 | 46 | 5 | 10.9 |
| Porter | 11 | 1 | 9.1 | 120 | 33 | 27.5 | 1,106 | 76 | 6.9 |
| Posey | 4 | 2 | 50.0 | 24 | 10 | 41.7 | 81 | 10 | 12.3 |
| Pulaski | 2 | 0 | 0.0 | 15 | 3 | 20.0 | 60 | 11 | 18.3 |
| Putnam | 9 | 2 | 22.2 | 27 | 5 | 18.5 | 125 | 18 | 14.4 |
| Randolph | 4 | 2 | 50.0 | 9 | 3 | 33.3 | 73 | 10 | 13.7 |
| Ripley | 5 | 4 | 80.0 | 20 | 6 | 30.0 | 128 | 25 | 19.5 |
| Rush | 2 | 0 | 0.0 | 20 | 5 | 25.0 | 66 | 6 | 9.1 |
| St. Joseph | 18 | 9 | 50.0 | 167 | 21 | 12.6 | 1,616 | 110 | 6.8 |
| Scott | 6 | 3 | 50.0 | 48 | 4 | 8.3 | 185 | 14 | 7.6 |
| Shelby | 6 | 3 | 50.0 | 69 | 13 | 18.8 | 314 | 30 | 9.6 |
| Spencer | 2 | 1 | 50.0 | 12 | 4 | 33.3 | 121 | 10 | 8.3 |
| Starke | 4 | 3 | 75.0 | 17 | 1 | 5.9 | 117 | 10 | 8.5 |
| Steuben | 6 | 4 | 66.7 | 48 | 15 | 31.3 | 202 | 30 | 14.9 |
| Sullivan | 2 | 2 | 100.0 | 24 | 7 | 29.2 | 92 | 12 | 13.0 |
| Switzerland | 4 | 2 | 50.0 | 8 | 1 | 12.5 | 33 | 5 | 15.2 |
| Tippecanoe | 4 | 2 | 50.0 | 62 | 24 | 38.7 | 1,191 | 135 | 11.3 |
| Tipton | 10 | 4 | 40.0 | 6 | 0 | 0.0 | 97 | 9 | 9.3 |
| Union | 2 | 2 | 100.0 | 6 | 2 | 33.3 | 21 | 5 | 23.8 |
| Vanderburgh | 19 | 8 | 42.1 | 87 | 25 | 28.7 | 1,536 | 137 | 8.9 |
| Vermillion | 4 | 1 | 25.0 | 18 | 3 | 16.7 | 70 | 6 | 8.6 |
| Vigo | 7 | 3 | 42.9 | 117 | 28 | 23.9 | 621 | 47 | 7.6 |
| Wabash | 6 | 3 | 50.0 | 35 | 8 | 22.9 | 124 | 17 | 13.7 |
| Warren | 1 | 1 | 100.0 | 7 | 0 | 0.0 | 22 | 4 | 18.2 |
| Warrick | 3 | 2 | 66.7 | 61 | 9 | 14.8 | 157 | 16 | 10.2 |
| Washington | 7 | 3 | 42.9 | 22 | 10 | 45.5 | 172 | 26 | 15.1 |
| Wayne | 7 | 1 | 14.3 | 67 | 12 | 17.9 | 404 | 66 | 16.3 |
| Wells | 4 | 1 | 25.0 | 22 | 5 | 22.7 | 121 | 13 | 10.7 |
| White | 8 | 2 | 25.0 | 29 | 4 | 13.8 | 121 | 13 | 10.7 |
| Whitley | 6 | 3 | 50.0 | 32 | 3 | 9.4 | 124 | 14 | 11.3 |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES) as of March 23,, 2015

Notes:
1) *Non-incapacitating* injuries include those reported as *non-incapacitating* and *possible*.
2) Includes only vehicle occupants (*drivers* and *passengers*). Pedestrians, pedalcyclists and *animal-drawn vehicle operators* are excluded.

3) Total counts include vehicle occupants identified as *restrained, unrestrained,* and *unknown* restraint usage.

**Map 9.7. Percentage of individuals involved in collisions, by county, where victim was not properly restrained, 2014**

| County | Value |
|--------|-------|
| Lake | 1.4 |
| Porter | 1.9 |
| LaPorte | 2.2 |
| St. Joseph | 1.5 |
| Elkhart | 1.9 |
| LaGrange | 3.2 |
| Steuben | 3.0 |
| Starke | 1.8 |
| Marshall | 3.5 |
| Kosciusko | 2.1 |
| Noble | 3.4 |
| DeKalb | 2.5 |
| Newton | 5.5 |
| Jasper | 4.1 |
| Pulaski | 3.5 |
| Fulton | 3.4 |
| Whitley | 2.3 |
| Allen | 1.8 |
| Benton | 2.6 |
| White | 2.4 |
| Cass | 2.7 |
| Miami | 4.1 |
| Wabash | 4.0 |
| Huntington | 2.3 |
| Wells | 4.2 |
| Adams | 4.0 |
| Warren | 3.6 |
| Tippecanoe | 2.0 |
| Carroll | 6.0 |
| Howard | 3.4 |
| Grant | 2.7 |
| Blackford | 3.0 |
| Jay | 2.7 |
| Fountain | 3.0 |
| Clinton | 2.4 |
| Tipton | 3.2 |
| Madison | 2.4 |
| Delaware | 2.2 |
| Randolph | 4.3 |
| Vermillion | 3.2 |
| Montgomery | 3.7 |
| Boone | 1.6 |
| Hamilton | 1.0 |
| Henry | 2.5 |
| Wayne | 3.3 |
| Parke | 7.3 |
| Putnam | 3.7 |
| Hendricks | 1.6 |
| Marion | 1.8 |
| Hancock | 1.2 |
| Rush | 3.5 |
| Fayette | 2.5 |
| Union | 7.1 |
| Vigo | 2.1 |
| Clay | 2.5 |
| Owen | 7.0 |
| Morgan | 1.7 |
| Johnson | 1.9 |
| Shelby | 3.3 |
| Franklin | 5.9 |
| Sullivan | 6.0 |
| Greene | 5.4 |
| Monroe | 2.2 |
| Brown | 5.0 |
| Bartholomew | 2.6 |
| Decatur | 4.5 |
| Ripley | 5.6 |
| Dearborn | 2.1 |
| Jennings | 2.9 |
| Ohio | 5.7 |
| Knox | 3.7 |
| Daviess | 9.8 |
| Martin | 7.8 |
| Lawrence | 3.5 |
| Jackson | 2.9 |
| Jefferson | 4.1 |
| Switzerland | 7.0 |
| Scott | 2.4 |
| Orange | 7.4 |
| Washington | 4.8 |
| Clark | 2.4 |
| Pike | 4.7 |
| Dubois | 2.0 |
| Crawford | 7.4 |
| Floyd | 2.0 |
| Gibson | 2.3 |
| Harrison | 5.3 |
| Posey | 4.8 |
| Vanderburgh | 1.8 |
| Warrick | 1.7 |
| Spencer | 3.2 |
| Perry | 6.3 |

Median percent = 3.1
Mean percent = 3.5
n = 302,872 individuals involved
(where county was known)

Unrestrained as % of total
individuals involved

| Color | Range |
|-------|-------|
| (white) | 1.0 - 2.2 |
| (gray) | 2.3 - 3.0 |
| (light blue) | 3.1 - 4.2 |
| (dark blue) | 4.3 - 9.8 |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES) as of March 23, 2015

**Table 9.6. Young drivers (ages 15-20) involved in Indiana collisions, by injury status and county, 2014**

| County | All drivers in collsions | Total Count | Total As % of total drivers in collisions | Fatal Count | Fatal As % of all young drivers in collisions | Incapacitating Count | Incapacitating As % of all young drivers in collisions | Non-incapacitating Count | Non-incapacitating As % of all young drivers in collisions | Other/no injury Count | Other/no injury As % of all young drivers in collisions |
|---|---|---|---|---|---|---|---|---|---|---|---|
| All counties | 315,526 | 40,460 | 12.8 | 34 | 0.1 | 419 | 1.0 | 3,585 | 8.9 | 36,422 | 90.0 |
| Mean | 3,430 | 440 | 14.0 | 0 | 0.1 | 5 | 1.6 | 39 | 10.5 | 396 | 87.8 |
| Median | 1,342 | 197 | 14.0 | 0 | 0.0 | 3 | 1.2 | 20 | 9.3 | 170 | 88.7 |
| Minimum | 90 | 11 | 8.4 | 0 | 0.0 | 0 | 0.0 | 1 | 3.6 | 10 | 66.7 |
| Maximum | 51,341 | 5,141 | 20.0 | 4 | 2.5 | 29 | 7.7 | 466 | 33.3 | 4,642 | 94.6 |
| Adams | 1,024 | 162 | 15.8 | 0 | 0.0 | 2 | 1.2 | 12 | 7.4 | 148 | 91.4 |
| Allen | 18,789 | 2,637 | 14.0 | 1 | 0.0 | 23 | 0.9 | 242 | 9.2 | 2,371 | 89.9 |
| Bartholomew | 3,405 | 463 | 13.6 | 1 | 0.2 | 5 | 1.1 | 57 | 12.3 | 400 | 86.4 |
| Benton | 190 | 37 | 19.5 | 0 | 0.0 | 1 | 2.7 | 3 | 8.1 | 33 | 89.2 |
| Blackford | 455 | 66 | 14.5 | 0 | 0.0 | 1 | 1.5 | 5 | 7.6 | 60 | 90.9 |
| Boone | 2,807 | 368 | 13.1 | 1 | 0.3 | 6 | 1.6 | 24 | 6.5 | 337 | 91.6 |
| Brown | 676 | 94 | 13.9 | 0 | 0.0 | 3 | 3.2 | 11 | 11.7 | 80 | 85.1 |
| Carroll | 644 | 107 | 16.6 | 0 | 0.0 | 3 | 2.8 | 15 | 14.0 | 89 | 83.2 |
| Cass | 1,648 | 223 | 13.5 | 1 | 0.4 | 1 | 0.4 | 25 | 11.2 | 196 | 87.9 |
| Clark | 7,230 | 843 | 11.7 | 0 | 0.0 | 8 | 0.9 | 72 | 8.5 | 763 | 90.5 |
| Clay | 1,182 | 168 | 14.2 | 0 | 0.0 | 1 | 0.6 | 17 | 10.1 | 150 | 89.3 |
| Clinton | 1,569 | 228 | 14.5 | 0 | 0.0 | 2 | 0.9 | 24 | 10.5 | 202 | 88.6 |
| Crawford | 331 | 43 | 13.0 | 0 | 0.0 | 1 | 2.3 | 7 | 16.3 | 35 | 81.4 |
| Daviess | 509 | 79 | 15.5 | 0 | 0.0 | 0 | 0.0 | 18 | 22.8 | 61 | 77.2 |
| Dearborn | 2,755 | 391 | 14.2 | 1 | 0.3 | 10 | 2.6 | 37 | 9.5 | 343 | 87.7 |
| Decatur | 1,251 | 166 | 13.3 | 0 | 0.0 | 5 | 3.0 | 12 | 7.2 | 149 | 89.8 |
| DeKalb | 1,922 | 273 | 14.2 | 1 | 0.4 | 3 | 1.1 | 25 | 9.2 | 244 | 89.4 |
| Delaware | 6,405 | 988 | 15.4 | 0 | 0.0 | 12 | 1.2 | 81 | 8.2 | 895 | 90.6 |
| Dubois | 2,276 | 351 | 15.4 | 1 | 0.3 | 8 | 2.3 | 37 | 10.5 | 305 | 86.9 |
| Elkhart | 11,542 | 1,394 | 12.1 | 0 | 0.0 | 14 | 1.0 | 93 | 6.7 | 1,287 | 92.3 |
| Fayette | 659 | 85 | 12.9 | 0 | 0.0 | 0 | 0.0 | 8 | 9.4 | 77 | 90.6 |
| Floyd | 4,349 | 650 | 14.9 | 0 | 0.0 | 3 | 0.5 | 56 | 8.6 | 591 | 90.9 |
| Fountain | 587 | 69 | 11.8 | 1 | 1.4 | 2 | 2.9 | 10 | 14.5 | 56 | 81.2 |
| Franklin | 663 | 117 | 17.6 | 0 | 0.0 | 3 | 2.6 | 12 | 10.3 | 102 | 87.2 |
| Fulton | 698 | 107 | 15.3 | 0 | 0.0 | 1 | 0.9 | 12 | 11.2 | 94 | 87.9 |
| Gibson | 1,679 | 220 | 13.1 | 0 | 0.0 | 2 | 0.9 | 25 | 11.4 | 193 | 87.7 |
| Grant | 3,573 | 423 | 11.8 | 1 | 0.2 | 3 | 0.7 | 37 | 8.7 | 382 | 90.3 |
| Greene | 1,161 | 151 | 13.0 | 1 | 0.7 | 3 | 2.0 | 17 | 11.3 | 130 | 86.1 |
| Hamilton | 13,184 | 1,817 | 13.8 | 1 | 0.1 | 14 | 0.8 | 91 | 5.0 | 1,711 | 94.2 |
| Hancock | 2,638 | 375 | 14.2 | 0 | 0.0 | 2 | 0.5 | 35 | 9.3 | 338 | 90.1 |
| Harrison | 1,692 | 253 | 15.0 | 0 | 0.0 | 5 | 2.0 | 26 | 10.3 | 222 | 87.7 |
| Hendricks | 6,607 | 972 | 14.7 | 0 | 0.0 | 15 | 1.5 | 64 | 6.6 | 893 | 91.9 |
| Henry | 1,510 | 189 | 12.5 | 0 | 0.0 | 3 | 1.6 | 17 | 9.0 | 169 | 89.4 |
| Howard | 3,721 | 547 | 14.7 | 0 | 0.0 | 14 | 2.6 | 75 | 13.7 | 458 | 83.7 |
| Huntington | 1,662 | 225 | 13.5 | 0 | 0.0 | 5 | 2.2 | 21 | 9.3 | 199 | 88.4 |
| Jackson | 2,736 | 321 | 11.7 | 1 | 0.3 | 7 | 2.2 | 24 | 7.5 | 289 | 90.0 |
| Jasper | 1,812 | 249 | 13.7 | 0 | 0.0 | 3 | 1.2 | 40 | 16.1 | 206 | 82.7 |
| Jay | 903 | 128 | 14.2 | 0 | 0.0 | 0 | 0.0 | 11 | 8.6 | 117 | 91.4 |
| Jefferson | 1,474 | 197 | 13.4 | 0 | 0.0 | 2 | 1.0 | 26 | 13.2 | 169 | 85.8 |
| Jennings | 1,242 | 202 | 16.3 | 0 | 0.0 | 7 | 3.5 | 21 | 10.4 | 174 | 86.1 |
| Johnson | 5,423 | 769 | 14.2 | 0 | 0.0 | 4 | 0.5 | 69 | 9.0 | 696 | 90.5 |
| Knox | 1,303 | 221 | 17.0 | 0 | 0.0 | 5 | 2.3 | 18 | 8.1 | 198 | 89.6 |
| Kosciusko | 3,602 | 536 | 14.9 | 0 | 0.0 | 4 | 0.7 | 39 | 7.3 | 493 | 92.0 |
| LaGrange | 1,311 | 211 | 16.1 | 1 | 0.5 | 1 | 0.5 | 20 | 9.5 | 189 | 89.6 |
| Lake | 27,467 | 2,862 | 10.4 | 2 | 0.1 | 13 | 0.5 | 222 | 7.8 | 2,625 | 91.7 |
| LaPorte | 5,405 | 624 | 11.5 | 0 | 0.0 | 9 | 1.4 | 81 | 13.0 | 534 | 85.6 |
| Lawrence | 2,134 | 306 | 14.3 | 0 | 0.0 | 4 | 1.3 | 25 | 8.2 | 277 | 90.5 |
| Madison | 5,825 | 712 | 12.2 | 1 | 0.1 | 7 | 1.0 | 62 | 8.7 | 642 | 90.2 |

**Table 9.6.** (*continued*)

| County | All drivers in collsions | Young drivers in collisions | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Total | | Fatal | | Incapacitating | | Non-incapacitating | | Other/no injury | |
| | | Count | As % of total drivers in collisions | Count | As % of all young drivers in collisions | Count | As % of all young drivers in collisions | Count | As % of all young drivers in collisions | Count | As % of all young drivers in collisions |
| Marion | 51,341 | 5,141 | 10.0 | 4 | 0.1 | 29 | 0.6 | 466 | 9.1 | 4,642 | 90.3 |
| Marshall | 1,953 | 260 | 13.3 | 1 | 0.4 | 3 | 1.2 | 28 | 10.8 | 228 | 87.7 |
| Martin | 131 | 11 | 8.4 | 0 | 0.0 | 0 | 0.0 | 1 | 9.1 | 10 | 90.9 |
| Miami | 1,336 | 174 | 13.0 | 0 | 0.0 | 2 | 1.1 | 23 | 13.2 | 149 | 85.6 |
| Monroe | 6,294 | 1,031 | 16.4 | 1 | 0.1 | 6 | 0.6 | 70 | 6.8 | 954 | 92.5 |
| Montgomery | 1,526 | 196 | 12.8 | 0 | 0.0 | 10 | 5.1 | 15 | 7.7 | 171 | 87.2 |
| Morgan | 2,589 | 413 | 16.0 | 0 | 0.0 | 1 | 0.2 | 38 | 9.2 | 374 | 90.6 |
| Newton | 459 | 59 | 12.9 | 0 | 0.0 | 2 | 3.4 | 12 | 20.3 | 45 | 76.3 |
| Noble | 1,987 | 280 | 14.1 | 0 | 0.0 | 6 | 2.1 | 18 | 6.4 | 256 | 91.4 |
| Ohio | 90 | 18 | 20.0 | 0 | 0.0 | 0 | 0.0 | 4 | 22.2 | 14 | 77.8 |
| Orange | 739 | 110 | 14.9 | 0 | 0.0 | 3 | 2.7 | 13 | 11.8 | 94 | 85.5 |
| Owen | 687 | 90 | 13.1 | 0 | 0.0 | 2 | 2.2 | 9 | 10.0 | 79 | 87.8 |
| Parke | 595 | 77 | 12.9 | 0 | 0.0 | 1 | 1.3 | 6 | 7.8 | 70 | 90.9 |
| Perry | 600 | 90 | 15.0 | 0 | 0.0 | 1 | 1.1 | 12 | 13.3 | 77 | 85.6 |
| Pike | 251 | 39 | 15.5 | 0 | 0.0 | 0 | 0.0 | 13 | 33.3 | 26 | 66.7 |
| Porter | 7,965 | 1,017 | 12.8 | 0 | 0.0 | 9 | 0.9 | 105 | 10.3 | 903 | 88.8 |
| Posey | 813 | 131 | 16.1 | 0 | 0.0 | 3 | 2.3 | 14 | 10.7 | 114 | 87.0 |
| Pulaski | 518 | 59 | 11.4 | 0 | 0.0 | 1 | 1.7 | 5 | 8.5 | 53 | 89.8 |
| Putnam | 1,090 | 155 | 14.2 | 1 | 0.6 | 2 | 1.3 | 16 | 10.3 | 136 | 87.7 |
| Randolph | 740 | 103 | 13.9 | 0 | 0.0 | 2 | 1.9 | 6 | 5.8 | 95 | 92.2 |
| Ripley | 1,078 | 160 | 14.8 | 0 | 0.0 | 1 | 0.6 | 19 | 11.9 | 140 | 87.5 |
| Rush | 484 | 54 | 11.2 | 0 | 0.0 | 0 | 0.0 | 12 | 22.2 | 42 | 77.8 |
| St. Joseph | 12,159 | 1,420 | 11.7 | 3 | 0.2 | 6 | 0.4 | 113 | 8.0 | 1,298 | 91.4 |
| Scott | 1,148 | 151 | 13.2 | 0 | 0.0 | 6 | 4.0 | 23 | 15.2 | 122 | 80.8 |
| Shelby | 1,709 | 231 | 13.5 | 0 | 0.0 | 10 | 4.3 | 41 | 17.7 | 180 | 77.9 |
| Spencer | 763 | 102 | 13.4 | 0 | 0.0 | 1 | 1.0 | 18 | 17.6 | 83 | 81.4 |
| Starke | 805 | 99 | 12.3 | 1 | 1.0 | 1 | 1.0 | 12 | 12.1 | 85 | 85.9 |
| Steuben | 2,189 | 296 | 13.5 | 0 | 0.0 | 5 | 1.7 | 17 | 5.7 | 274 | 92.6 |
| Sullivan | 627 | 100 | 15.9 | 0 | 0.0 | 2 | 2.0 | 11 | 11.0 | 87 | 87.0 |
| Switzerland | 228 | 31 | 13.6 | 0 | 0.0 | 2 | 6.5 | 2 | 6.5 | 27 | 87.1 |
| Tippecanoe | 10,948 | 1,578 | 14.4 | 0 | 0.0 | 6 | 0.4 | 119 | 7.5 | 1,453 | 92.1 |
| Tipton | 481 | 79 | 16.4 | 2 | 2.5 | 0 | 0.0 | 10 | 12.7 | 67 | 84.8 |
| Union | 164 | 26 | 15.9 | 0 | 0.0 | 2 | 7.7 | 2 | 7.7 | 22 | 84.6 |
| Vanderburgh | 12,002 | 1,631 | 13.6 | 1 | 0.1 | 5 | 0.3 | 135 | 8.3 | 1,490 | 91.4 |
| Vermillion | 540 | 56 | 10.4 | 0 | 0.0 | 1 | 1.8 | 2 | 3.6 | 53 | 94.6 |
| Vigo | 5,298 | 775 | 14.6 | 0 | 0.0 | 7 | 0.9 | 58 | 7.5 | 710 | 91.6 |
| Wabash | 1,287 | 186 | 14.5 | 1 | 0.5 | 6 | 3.2 | 15 | 8.1 | 164 | 88.2 |
| Warren | 323 | 50 | 15.5 | 0 | 0.0 | 0 | 0.0 | 3 | 6.0 | 47 | 94.0 |
| Warrick | 2,103 | 340 | 16.2 | 0 | 0.0 | 7 | 2.1 | 21 | 6.2 | 312 | 91.8 |
| Washington | 982 | 131 | 13.3 | 1 | 0.8 | 2 | 1.5 | 22 | 16.8 | 106 | 80.9 |
| Wayne | 3,307 | 416 | 12.6 | 1 | 0.2 | 6 | 1.4 | 32 | 7.7 | 377 | 90.6 |
| Wells | 977 | 144 | 14.7 | 0 | 0.0 | 3 | 2.1 | 19 | 13.2 | 122 | 84.7 |
| White | 1,348 | 157 | 11.6 | 1 | 0.6 | 5 | 3.2 | 14 | 8.9 | 137 | 87.3 |
| Whitley | 1,242 | 174 | 14.0 | 0 | 0.0 | 2 | 1.1 | 10 | 5.7 | 162 | 93.1 |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES) as of March 23, 2015

Notes:
1) *Non-incapacitating* injuries include those reported as *non-incapacitating* and *possible* injuries.
2) *Other/no injury* counts include injury type values identified as not *reported, refused, unknown,* invalid and missing codes.

**Map 9.8. Young drivers (ages 15-20) involved in collisions per 1,000 licensed young drivers, 2014**



| County | Rate |
|--------|------|
| Lake | 119.6 |
| Porter | 105.1 |
| LaPorte | 114.9 |
| St. Joseph | 112.0 |
| Elkhart | 131.5 |
| LaGrange | 106.6 |
| Steuben | 164.4 |
| Noble | 98.9 |
| DeKalb | 103.0 |
| Starke | 79.9 |
| Marshall | 91.9 |
| Kosciusko | 121.3 |
| Whitley | 86.1 |
| Allen | 133.3 |
| Newton | 75.7 |
| Jasper | 114.9 |
| Pulaski | 78.4 |
| Fulton | 97.9 |
| Wabash | 105.9 |
| Huntington | 109.9 |
| Wells | 81.1 |
| Adams | 88.5 |
| White | 109.9 |
| Cass | 107.2 |
| Miami | 92.8 |
| Benton | 72.3 |
| Carroll | 84.7 |
| Howard | 122.6 |
| Grant | 129.1 |
| Blackford | 96.9 |
| Jay | 106.8 |
| Warren | 99.0 |
| Tippecanoe | 203.3 |
| Clinton | 121.0 |
| Tipton | 81.1 |
| Madison | 115.7 |
| Delaware | 205.9 |
| Randolph | 73.4 |
| Fountain | 63.9 |
| Montgomery | 95.6 |
| Boone | 82.6 |
| Hamilton | 86.3 |
| Henry | 73.8 |
| Wayne | 138.7 |
| Vermillion | 64.1 |
| Parke | 100.5 |
| Hendricks | 95.6 |
| Marion | 140.6 |
| Hancock | 76.5 |
| Rush | 54.4 |
| Fayette | 71.2 |
| Union | 58.7 |
| Putnam | 73.5 |
| Vigo | 167.5 |
| Clay | 114.4 |
| Owen | 75.3 |
| Morgan | 96.5 |
| Johnson | 86 |
| Shelby | 92 |
| Franklin | 69.9 |
| Sullivan | 86.1 |
| Greene | 80.8 |
| Monroe | 196.3 |
| Brown | 114.2 |
| Bartholomew | 106.6 |
| Decatur | 115.6 |
| Ripley | 84.6 |
| Dearborn | 120.9 |
| Jennings | 120.7 |
| Ohio | 59.2 |
| Lawrence | 115.2 |
| Jackson | 130.6 |
| Jefferson | 107.7 |
| Switzerland | 69.8 |
| Knox | 121.2 |
| Daviess | 47.9 |
| Martin | 17.2 |
| Scott | 124.2 |
| Orange | 92.8 |
| Washington | 81.0 |
| Clark | 151.6 |
| Pike | 56.9 |
| Dubois | 118.0 |
| Crawford | 71.8 |
| Floyd | 149.8 |
| Gibson | 112.9 |
| Harrison | 111.5 |
| Posey | 83.5 |
| Vanderburgh | 208.1 |
| Warrick | 84.6 |
| Spencer | 77.4 |
| Perry | 92.9 |

Median rate = 98.4
Mean rate = 102.5
n = 40,460 young drivers
(where county was known)

**Rate per 1,000 licensed young drivers**

| | |
|--|--|
| | 17.2 - 80.8 |
| | 80.9 - 98.3 |
| | 98.4 - 115.7 |
| | 115.8 - 208.1 |

Sources:
Drivers in collisions:Indiana State Police Automated Reporting Information Exchange System (ARIES) as of March 23, 2015
Licensed drivers: Indiana Bureau of Motor Vehicles, as of March 24, 2015

**Table 9.7. Indiana collisions involving motorcycles, by severity and county, 2014**

| County | Total Count | Total: Motorcycle collisions as % of total collisions | Fatal Count | Fatal: Motorcycle collisions as % of total fatal collisions | Non-fatal injury Count | Non-fatal injury: Motorcycle collisions as % of total non-fatal injury collisions | Property damage only Count | Property damage only: Motorcycle collisions as % of total property damage collisions |
|---|---|---|---|---|---|---|---|---|
| All counties | 3,407 | 1.7 | 123 | 17.5 | 2,353 | 7.0 | 931 | 0.5 |
| Mean | 37 | 1.9 | 1 | 13.6 | 26 | 8.2 | 10 | 0.6 |
| Median | 17 | 1.7 | 1 | 12.5 | 12 | 7.4 | 4 | 0.5 |
| Minimum | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Maximum | 416 | 6.0 | 14 | 100.0 | 280 | 24.2 | 122 | 3.9 |
| Adams | 6 | 0.8 | 1 | 20.0 | 3 | 3.2 | 2 | 0.3 |
| Allen | 194 | 1.6 | 5 | 16.7 | 145 | 6.2 | 44 | 0.4 |
| Bartholomew | 40 | 1.8 | 2 | 18.2 | 34 | 6.0 | 4 | 0.3 |
| Benton | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Blackford | 9 | 2.6 | 0 | 0.0 | 6 | 15.8 | 3 | 1.0 |
| Boone | 23 | 1.2 | 0 | 0.0 | 16 | 6.0 | 7 | 0.4 |
| Brown | 28 | 5.2 | 2 | 50.0 | 22 | 24.2 | 4 | 0.9 |
| Carroll | 17 | 3.3 | 1 | 16.7 | 14 | 17.5 | 2 | 0.5 |
| Cass | 17 | 1.5 | 1 | 16.7 | 8 | 4.8 | 8 | 0.8 |
| Clark | 72 | 1.6 | 4 | 36.4 | 45 | 5.8 | 23 | 0.6 |
| Clay | 11 | 1.4 | 0 | 0.0 | 8 | 6.7 | 3 | 0.4 |
| Clinton | 17 | 1.5 | 0 | 0.0 | 12 | 7.6 | 5 | 0.5 |
| Crawford | 1 | 0.4 | 0 | 0.0 | 0 | 0.0 | 1 | 0.4 |
| Daviess | 11 | 3.2 | 1 | 14.3 | 8 | 7.4 | 2 | 0.9 |
| Dearborn | 23 | 1.2 | 0 | 0.0 | 14 | 5.9 | 9 | 0.5 |
| Decatur | 12 | 1.3 | 1 | 16.7 | 7 | 5.6 | 4 | 0.5 |
| DeKalb | 21 | 1.5 | 1 | 12.5 | 16 | 8.8 | 4 | 0.3 |
| Delaware | 74 | 1.8 | 3 | 20.0 | 46 | 6.7 | 25 | 0.7 |
| Dubois | 38 | 2.3 | 0 | 0.0 | 30 | 12.4 | 8 | 0.6 |
| Elkhart | 130 | 1.7 | 7 | 35.0 | 82 | 8.6 | 41 | 0.6 |
| Fayette | 8 | 1.8 | 0 | 0.0 | 7 | 12.7 | 1 | 0.3 |
| Floyd | 51 | 1.9 | 0 | 0.0 | 37 | 7.7 | 14 | 0.6 |
| Fountain | 4 | 0.8 | 0 | 0.0 | 2 | 3.6 | 2 | 0.5 |
| Franklin | 15 | 2.9 | 0 | 0.0 | 13 | 14.9 | 2 | 0.5 |
| Fulton | 11 | 2.0 | 0 | 0.0 | 7 | 11.5 | 4 | 0.8 |
| Gibson | 14 | 1.2 | 1 | 16.7 | 7 | 3.5 | 6 | 0.6 |
| Grant | 54 | 2.2 | 0 | 0.0 | 39 | 11.1 | 15 | 0.7 |
| Greene | 13 | 1.5 | 2 | 22.2 | 9 | 7.1 | 2 | 0.3 |
| Hamilton | 80 | 1.1 | 4 | 28.6 | 45 | 4.4 | 31 | 0.5 |
| Hancock | 21 | 1.3 | 0 | 0.0 | 10 | 3.9 | 11 | 0.8 |
| Harrison | 30 | 2.4 | 2 | 40.0 | 23 | 9.5 | 5 | 0.5 |
| Hendricks | 56 | 1.4 | 2 | 28.6 | 38 | 6.4 | 16 | 0.5 |
| Henry | 13 | 1.2 | 1 | 12.5 | 6 | 3.9 | 6 | 0.7 |
| Howard | 65 | 2.8 | 2 | 20.0 | 46 | 9.4 | 17 | 1.0 |
| Huntington | 32 | 2.6 | 0 | 0.0 | 25 | 12.8 | 7 | 0.7 |
| Jackson | 37 | 1.9 | 3 | 37.5 | 26 | 9.7 | 8 | 0.5 |
| Jasper | 20 | 1.5 | 0 | 0.0 | 17 | 7.7 | 3 | 0.3 |
| Jay | 12 | 1.7 | 1 | 16.7 | 6 | 6.7 | 5 | 0.8 |
| Jefferson | 12 | 1.2 | 0 | 0.0 | 9 | 6.0 | 3 | 0.4 |
| Jennings | 12 | 1.4 | 1 | 25.0 | 7 | 4.7 | 4 | 0.6 |
| Johnson | 54 | 1.7 | 0 | 0.0 | 36 | 6.2 | 18 | 0.7 |
| Knox | 21 | 2.2 | 1 | 20.0 | 16 | 8.4 | 4 | 0.5 |
| Kosciusko | 35 | 1.4 | 1 | 14.3 | 22 | 6.3 | 12 | 0.6 |
| LaGrange | 13 | 1.3 | 0 | 0.0 | 12 | 9.5 | 1 | 0.1 |
| Lake | 158 | 0.9 | 11 | 25.6 | 106 | 3.8 | 41 | 0.3 |
| LaPorte | 62 | 1.7 | 6 | 31.6 | 43 | 6.4 | 13 | 0.4 |
| Lawrence | 29 | 1.9 | 0 | 0.0 | 21 | 7.8 | 8 | 0.7 |
| Madison | 79 | 2.0 | 3 | 14.3 | 52 | 9.7 | 24 | 0.7 |

**Table 9.7.** (*continued*)

| County | Total Count | Total Motorcycle collisions as % of total collisions | Fatal Count | Fatal Motorcycle collisions as % of total fatal collisions | Non-fatal injury Count | Non-fatal injury Motorcycle collisions as % of total non-fatal injury collisions | Property damage only Count | Property damage only Motorcycle collisions as % of total property damage collisions |
|---|---|---|---|---|---|---|---|---|
| Marion | 416 | 1.4 | 14 | 17.7 | 280 | 5.2 | 122 | 0.5 |
| Marshall | 20 | 1.4 | 2 | 28.6 | 12 | 5.6 | 6 | 0.5 |
| Martin | 6 | 6.0 | 0 | 0.0 | 3 | 12.5 | 3 | 3.9 |
| Miami | 39 | 4.0 | 0 | 0.0 | 32 | 18.9 | 7 | 0.9 |
| Monroe | 94 | 2.3 | 1 | 14.3 | 73 | 8.9 | 20 | 0.6 |
| Montgomery | 23 | 2.1 | 0 | 0.0 | 18 | 10.1 | 5 | 0.6 |
| Morgan | 25 | 1.5 | 3 | 27.3 | 19 | 6.6 | 3 | 0.2 |
| Newton | 9 | 2.5 | 0 | 0.0 | 6 | 9.1 | 3 | 1.0 |
| Noble | 32 | 2.2 | 2 | 28.6 | 19 | 9.0 | 11 | 0.9 |
| Ohio | 3 | 3.8 | 1 | 100.0 | 0 | 0.0 | 2 | 3.0 |
| Orange | 12 | 2.0 | 0 | 0.0 | 11 | 12.4 | 1 | 0.2 |
| Owen | 10 | 1.9 | 0 | 0.0 | 6 | 7.3 | 4 | 0.9 |
| Parke | 15 | 3.0 | 0 | 0.0 | 9 | 13.4 | 6 | 1.4 |
| Perry | 14 | 3.2 | 0 | 0.0 | 14 | 19.7 | 0 | 0.0 |
| Pike | 4 | 2.1 | 0 | 0.0 | 3 | 7.3 | 1 | 0.7 |
| Porter | 90 | 1.8 | 0 | 0.0 | 72 | 7.6 | 18 | 0.4 |
| Posey | 19 | 3.1 | 0 | 0.0 | 12 | 14.1 | 7 | 1.3 |
| Pulaski | 7 | 1.6 | 0 | 0.0 | 4 | 7.5 | 3 | 0.8 |
| Putnam | 12 | 1.6 | 0 | 0.0 | 8 | 7.2 | 4 | 0.6 |
| Randolph | 14 | 2.6 | 1 | 25.0 | 9 | 14.8 | 4 | 0.8 |
| Ripley | 17 | 2.1 | 1 | 20.0 | 13 | 10.9 | 3 | 0.4 |
| Rush | 4 | 1.1 | 0 | 0.0 | 4 | 6.0 | 0 | 0.0 |
| St. Joseph | 114 | 1.4 | 7 | 30.4 | 77 | 5.5 | 30 | 0.5 |
| Scott | 6 | 0.8 | 2 | 33.3 | 2 | 1.3 | 2 | 0.4 |
| Shelby | 28 | 2.3 | 1 | 16.7 | 22 | 7.5 | 5 | 0.5 |
| Spencer | 8 | 1.4 | 0 | 0.0 | 5 | 5.2 | 3 | 0.6 |
| Starke | 8 | 1.3 | 0 | 0.0 | 7 | 7.6 | 1 | 0.2 |
| Steuben | 29 | 1.7 | 2 | 33.3 | 16 | 8.8 | 11 | 0.7 |
| Sullivan | 5 | 1.0 | 0 | 0.0 | 3 | 3.7 | 2 | 0.5 |
| Switzerland | 6 | 3.6 | 1 | 25.0 | 2 | 7.1 | 3 | 2.3 |
| Tippecanoe | 149 | 2.1 | 1 | 20.0 | 110 | 10.7 | 38 | 0.6 |
| Tipton | 5 | 1.4 | 1 | 16.7 | 3 | 3.9 | 1 | 0.4 |
| Union | 7 | 5.6 | 1 | 50.0 | 5 | 22.7 | 1 | 1.0 |
| Vanderburgh | 174 | 2.5 | 4 | 23.5 | 121 | 9.3 | 49 | 0.9 |
| Vermillion | 7 | 1.8 | 0 | 0.0 | 4 | 6.3 | 3 | 0.9 |
| Vigo | 76 | 2.1 | 1 | 11.1 | 49 | 8.4 | 26 | 0.9 |
| Wabash | 20 | 2.1 | 1 | 14.3 | 13 | 10.3 | 6 | 0.7 |
| Warren | 1 | 0.4 | 0 | 0.0 | 1 | 4.2 | 0 | 0.0 |
| Warrick | 8 | 0.6 | 0 | 0.0 | 8 | 4.4 | 0 | 0.0 |
| Washington | 15 | 2.0 | 1 | 16.7 | 11 | 7.9 | 3 | 0.5 |
| Wayne | 67 | 2.8 | 1 | 12.5 | 43 | 12.3 | 23 | 1.1 |
| Wells | 12 | 1.7 | 0 | 0.0 | 9 | 8.6 | 3 | 0.5 |
| White | 13 | 1.3 | 4 | 57.1 | 7 | 5.8 | 2 | 0.2 |
| Whitley | 9 | 1.0 | 0 | 0.0 | 5 | 4.2 | 4 | 0.5 |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Notes:
1) Percent calculations represent the percent of total county collisions (presented in Table 9.1) in each injury category that involved a *motorcycle* or *moped*.
2) *Non-fatal* injury collisions include collisions with *incapacitating, non-incapacitating* and *possible* injuries.

**Map 9.9. Percentage of county collisions that involved a motorcycle, 2014**

| County | Value |
|---|---|
| Lake | 0.9 |
| Porter | 1.8 |
| LaPorte | 1.7 |
| St. Joseph | 1.4 |
| Elkhart | 1.7 |
| LaGrange | 1.3 |
| Steuben | 1.7 |
| Noble | 2.2 |
| DeKalb | 1.5 |
| Starke | 1.3 |
| Marshall | 1.4 |
| Kosciusko | 1.4 |
| Whitley | 1.0 |
| Allen | 1.6 |
| Newton | 2.5 |
| Jasper | 1.5 |
| Pulaski | 1.6 |
| Fulton | 2.0 |
| Wabash | 2.1 |
| Huntington | 2.6 |
| Wells | 1.7 |
| Adams | 0.8 |
| White | 1.3 |
| Cass | 1.5 |
| Miami | 4.0 |
| Benton | 0 |
| Carroll | 3.3 |
| Howard | 2.8 |
| Grant | 2.2 |
| Blackford | 2.6 |
| Jay | 1.7 |
| Warren | 0.4 |
| Tippecanoe | 2.1 |
| Clinton | 1.5 |
| Tipton | 1.4 |
| Madison | 2.0 |
| Delaware | 1.8 |
| Randolph | 2.6 |
| Fountain | 0.8 |
| Montgomery | 2.1 |
| Boone | 1.2 |
| Hamilton | 1.1 |
| Henry | 1.2 |
| Wayne | 2.8 |
| Vermillion | 1.8 |
| Parke | 3.0 |
| Putnam | 1.6 |
| Hendricks | 1.4 |
| Marion | 1.4 |
| Hancock | 1.3 |
| Rush | 1.1 |
| Fayette | 1.8 |
| Union | 5.6 |
| Vigo | 2.1 |
| Clay | 1.4 |
| Owen | 1.9 |
| Morgan | 1.5 |
| Johnson | 1.7 |
| Shelby | 2.3 |
| Decatur | 1.3 |
| Franklin | 2.9 |
| Sullivan | 1.0 |
| Greene | 1.5 |
| Monroe | 2.3 |
| Brown | 5.2 |
| Bartholomew | 1.8 |
| Jennings | 1.4 |
| Ripley | 2.1 |
| Dearborn | 1.2 |
| Knox | 2.2 |
| Daviess | 3.2 |
| Martin | 6.0 |
| Lawrence | 1.9 |
| Jackson | 1.9 |
| Scott | 0.8 |
| Jefferson | 1.2 |
| Switzerland | 3.6 |
| Ohio | 3.8 |
| Gibson | 1.2 |
| Pike | 2.1 |
| Dubois | 2.3 |
| Orange | 2.0 |
| Washington | 2.0 |
| Clark | 1.6 |
| Crawford | 0.4 |
| Floyd | 1.9 |
| Harrison | 2.4 |
| Posey | 3.1 |
| Vanderburgh | 2.5 |
| Warrick | 0.6 |
| Spencer | 1.4 |
| Perry | 3.2 |

Median percent = 1.7
Mean percent = 1.9
n = 3,407 motorcycle collisions
(where county was known)

Percent of total county collisions
involving a motorcycle

| | |
|---|---|
| (white) | 0.0 - 1.4 |
| (gray) | 1.5 - 1.6 |
| (light blue) | 1.7 - 2.2 |
| (dark blue) | 2.3 - 6.0 |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES) as of March 23, 2015

Map 9.10. Percentage of county collisions that involved a hit-and-run driver, 2014

| County | Value |
|--------|-------|
| Lake | 17.5 |
| Porter | 10.1 |
| LaPorte | 14.8 |
| St. Joseph | 17.4 |
| Elkhart | 12.8 |
| LaGrange | 5.0 |
| Steuben | 8.9 |
| Starke | 4.7 |
| Marshall | 7.4 |
| Kosciusko | 5.6 |
| Noble | 8.9 |
| DeKalb | 6.1 |
| Newton | 6.5 |
| Jasper | 8.5 |
| Pulaski | 1.4 |
| Fulton | 7.4 |
| Whitley | 4.7 |
| Allen | 18.9 |
| White | 4.4 |
| Cass | 7.1 |
| Wabash | 5.9 |
| Miami | 5.2 |
| Huntington | 7.5 |
| Wells | 5.5 |
| Adams | 9.0 |
| Benton | 3.8 |
| Carroll | 8.0 |
| Howard | 5.3 |
| Grant | 10.5 |
| Blackford | 7.8 |
| Jay | 9.6 |
| Warren | 2.2 |
| Tippecanoe | 13.6 |
| Clinton | 10.9 |
| Tipton | 8.3 |
| Madison | 13.2 |
| Delaware | 14.1 |
| Randolph | 9.0 |
| Fountain | 5.5 |
| Montgomery | 5.5 |
| Boone | 7.7 |
| Hamilton | 8.2 |
| Henry | 7.4 |
| Wayne | 13.8 |
| Vermillion | 8.0 |
| Parke | 7.7 |
| Putnam | 5.2 |
| Hendricks | 9.4 |
| Marion | 17.0 |
| Hancock | 6.0 |
| Rush | 4.2 |
| Fayette | 4.6 |
| Union | 2.4 |
| Vigo | 18.1 |
| Clay | 8.1 |
| Owen | 4.9 |
| Morgan | 4.4 |
| Johnson | 7.4 |
| Shelby | 7.5 |
| Decatur | 7.1 |
| Franklin | 4.3 |
| Sullivan | 6.3 |
| Greene | 3.3 |
| Monroe | 17.2 |
| Brown | 6.7 |
| Bartholomew | 6.5 |
| Ripley | 5.7 |
| Dearborn | 7.3 |
| Ohio | 6.3 |
| Jennings | 3.8 |
| Jackson | 9.9 |
| Jefferson | 7.1 |
| Switzerland | 5.5 |
| Knox | 7.5 |
| Daviess | 3.2 |
| Martin | 1.0 |
| Lawrence | 8.8 |
| Orange | 4.9 |
| Washington | 3.5 |
| Scott | 3.5 |
| Clark | 11.9 |
| Gibson | 7.9 |
| Pike | 5.9 |
| Dubois | 8.3 |
| Crawford | 3.1 |
| Floyd | 11.7 |
| Harrison | 6.4 |
| Posey | 7.9 |
| Vanderburgh | 4.9 |
| Warrick | 3.8 |
| Spencer | 2.2 |
| Perry | 6.2 |

Median percent = 7.1
Mean percent = 7.6
n = 24,581 hit-and-run collisions
(where county was known)

Percent of total county collisions

- 1.0 - 4.9
- 5.0 - 7.0
- 7.1 - 8.9
- 9.0 - 18.9

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES) as of March 23, 2015

**Table 9.8. County ranks by collision metric, 2014**

| County | Collision metric | | | | | | County rank composite |
|---|---|---|---|---|---|---|---|
| | Total collisions per 100M VMT | Speed-related collisions as % of total collisions | Alcohol-impaired collisions as % of total collisions | Motorcycle collisions as % of total collisions | Unrestrained fatal/incap injuries as % of total fatal/incap injuries | Young drivers as % of total drivers in collisions | |
| Adams | 33 | 59 | 79 | 88 | 15 | 15 | 51 |
| Allen | 29 | 38 | 23 | 53 | 57 | 45 | 34 |
| Bartholomew | 58 | 50 | 38 | 41 | 89 | 51 | 67 |
| Benton | 89 | 53 | 5 | 92 | 64 | 2 | 57 |
| Blackford | 52 | 91 | 46 | 15 | 90 | 33 | 67 |
| Boone | 78 | 34 | 88 | 77 | 71 | 64 | 90 |
| Brown | 5 | 23 | 33 | 3 | 28 | 48 | 1 |
| Carroll | 67 | 3 | 70 | 7 | 55 | 5 | 16 |
| Cass | 26 | 30 | 73 | 61 | 24 | 55 | 42 |
| Clark | 9 | 77 | 84 | 55 | 32 | 84 | 75 |
| Clay | 60 | 63 | 15 | 68 | 91 | 39 | 73 |
| Clinton | 32 | 16 | 35 | 60 | 15 | 32 | 9 |
| Crawford | 88 | 56 | 16 | 90 | 38 | 69 | 79 |
| Daviess | 91 | 28 | 4 | 9 | 60 | 17 | 17 |
| Dearborn | 15 | 47 | 32 | 80 | 84 | 41 | 54 |
| Decatur | 63 | 37 | 85 | 71 | 2 | 62 | 64 |
| DeKalb | 56 | 11 | 22 | 57 | 45 | 40 | 30 |
| Delaware | 12 | 49 | 54 | 43 | 37 | 19 | 19 |
| Dubois | 6 | 61 | 60 | 21 | 58 | 20 | 24 |
| Elkhart | 4 | 6 | 52 | 48 | 85 | 79 | 48 |
| Fayette | 35 | 84 | 10 | 42 | 49 | 71 | 52 |
| Floyd | 7 | 87 | 41 | 40 | 70 | 24 | 42 |
| Fountain | 68 | 52 | 12 | 86 | 92 | 81 | 87 |
| Franklin | 53 | 4 | 29 | 12 | 83 | 3 | 6 |
| Fulton | 54 | 43 | 74 | 35 | 55 | 21 | 49 |
| Gibson | 62 | 57 | 25 | 78 | 46 | 65 | 71 |
| Grant | 16 | 18 | 56 | 25 | 18 | 80 | 18 |
| Greene | 44 | 58 | 75 | 59 | 34 | 68 | 74 |
| Hamilton | 41 | 79 | 58 | 82 | 86 | 49 | 88 |
| Hancock | 75 | 33 | 9 | 74 | 74 | 38 | 55 |
| Harrison | 24 | 76 | 31 | 20 | 30 | 23 | 14 |
| Hendricks | 42 | 42 | 59 | 65 | 75 | 29 | 61 |
| Henry | 80 | 31 | 47 | 76 | 25 | 76 | 72 |
| Howard | 23 | 70 | 17 | 13 | 43 | 30 | 11 |
| Huntington | 55 | 27 | 69 | 16 | 67 | 54 | 50 |
| Jackson | 21 | 51 | 67 | 38 | 51 | 82 | 60 |
| Jasper | 79 | 9 | 48 | 58 | 27 | 50 | 45 |
| Jay | 22 | 90 | 80 | 50 | 28 | 43 | 62 |
| Jefferson | 14 | 68 | 62 | 79 | 22 | 59 | 56 |
| Jennings | 38 | 66 | 81 | 63 | 76 | 8 | 70 |
| Johnson | 61 | 65 | 68 | 51 | 82 | 42 | 83 |
| Knox | 65 | 39 | 21 | 24 | 33 | 4 | 8 |
| Kosciusko | 11 | 44 | 44 | 66 | 73 | 26 | 39 |
| LaGrange | 57 | 1 | 40 | 75 | 34 | 11 | 21 |
| Lake | 17 | 7 | 57 | 85 | 54 | 89 | 59 |
| LaPorte | 40 | 26 | 19 | 49 | 53 | 86 | 46 |
| Lawrence | 8 | 72 | 49 | 39 | 26 | 36 | 27 |
| Madison | 27 | 60 | 72 | 33 | 81 | 78 | 78 |

**Table 9.8.** *(continued)*

| County | Total collisions per 100M VMT | Speed-related collisions as % of total collisions | Alcohol-impaired collisions as % of total collisions | Motorcycle collisions as % of total collisions | Unrestrained fatal/incap injuries as % of total fatal/incap injuries | Young drivers as % of total drivers in collisions | County rank composite |
|---|---|---|---|---|---|---|---|
| | | | Collision metric | | | | |
| Marion | 28 | 64 | 83 | 69 | 44 | 91 | 85 |
| Marshall | 36 | 48 | 20 | 64 | 19 | 61 | 36 |
| Martin | 92 | 5 | 90 | 1 | 15 | 92 | 53 |
| Miami | 43 | 20 | 51 | 4 | 38 | 67 | 22 |
| Monroe | 2 | 55 | 77 | 23 | 66 | 7 | 27 |
| Montgomery | 45 | 35 | 86 | 29 | 80 | 73 | 77 |
| Morgan | 66 | 45 | 87 | 56 | 62 | 12 | 69 |
| Newton | 86 | 12 | 26 | 18 | 20 | 72 | 32 |
| Noble | 10 | 25 | 36 | 26 | 63 | 44 | 14 |
| Ohio | 71 | 92 | 92 | 5 | 1 | 1 | 38 |
| Orange | 13 | 75 | 43 | 36 | 8 | 25 | 13 |
| Owen | 46 | 46 | 30 | 37 | 22 | 66 | 35 |
| Parke | 50 | 41 | 7 | 11 | 52 | 70 | 30 |
| Perry | 70 | 86 | 3 | 8 | 6 | 22 | 10 |
| Pike | 90 | 13 | 1 | 27 | 3 | 16 | 2 |
| Porter | 39 | 19 | 11 | 44 | 36 | 74 | 22 |
| Posey | 69 | 10 | 63 | 10 | 7 | 10 | 5 |
| Pulaski | 49 | 83 | 28 | 52 | 67 | 87 | 81 |
| Putnam | 85 | 14 | 64 | 54 | 59 | 37 | 62 |
| Randolph | 59 | 82 | 89 | 17 | 11 | 47 | 57 |
| Ripley | 47 | 62 | 24 | 30 | 9 | 27 | 12 |
| Rush | 84 | 40 | 39 | 81 | 48 | 88 | 86 |
| St. Joseph | 25 | 32 | 45 | 62 | 77 | 83 | 65 |
| Scott | 51 | 78 | 82 | 87 | 87 | 63 | 92 |
| Shelby | 74 | 8 | 53 | 22 | 50 | 57 | 39 |
| Spencer | 77 | 88 | 37 | 70 | 12 | 58 | 76 |
| Starke | 31 | 74 | 91 | 73 | 60 | 77 | 89 |
| Steuben | 30 | 17 | 65 | 47 | 13 | 56 | 26 |
| Sullivan | 76 | 69 | 17 | 84 | 14 | 13 | 46 |
| Switzerland | 83 | 85 | 6 | 6 | 38 | 52 | 44 |
| Tippecanoe | 1 | 21 | 61 | 32 | 10 | 35 | 4 |
| Tipton | 87 | 2 | 27 | 67 | 38 | 6 | 25 |
| Union | 82 | 81 | 2 | 2 | 3 | 14 | 6 |
| Vanderburgh | 3 | 89 | 71 | 19 | 21 | 53 | 37 |
| Vermillion | 81 | 36 | 8 | 45 | 64 | 90 | 65 |
| Vigo | 18 | 67 | 34 | 27 | 38 | 31 | 20 |
| Wabash | 20 | 29 | 13 | 31 | 31 | 34 | 3 |
| Warren | 72 | 71 | 76 | 91 | 88 | 18 | 91 |
| Warrick | 48 | 73 | 78 | 89 | 71 | 9 | 82 |
| Washington | 37 | 80 | 14 | 34 | 5 | 60 | 27 |
| Wayne | 19 | 24 | 42 | 14 | 69 | 75 | 33 |
| Wells | 34 | 54 | 55 | 46 | 47 | 28 | 39 |
| White | 73 | 15 | 50 | 72 | 77 | 85 | 84 |
| Whitley | 64 | 22 | 66 | 83 | 79 | 46 | 80 |

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 23, 2015

Low ▬▬▬▬▬ High

Notes:
1) See glossary for definition of *speed-related.*
2) See glossary for definition of *alcohol-impaired.*
3) *Motorcycle* collisions defined as collisions with at least one *motorcycle* or *moped* involved.
4) Young drivers are drivers ages 15 to 20.
5) Ties received the same rank.
6) County rank composite is the rank of the average county ranks across the six collision metrics presented in previous tables.
7) Color scale depicts rankings from high (1) to low (92) for each individual collision metric.

**Map 9.11.  County rank, composite (average, six metrics), 2014**

| County | Rank |
|--------|------|
| Lake | 59 |
| Porter | 22 |
| LaPorte | 46 |
| St. Joseph | 65 |
| Elkhart | 48 |
| LaGrange | 21 |
| Steuben | 26 |
| Noble | 14 |
| DeKalb | 30 |
| Newton | 32 |
| Jasper | 45 |
| Starke | 89 |
| Marshall | 36 |
| Kosciusko | 39 |
| Whitley | 80 |
| Allen | 34 |
| Pulaski | 81 |
| Fulton | 49 |
| Wabash | 3 |
| Huntington | — |
| Wells | 39 |
| Adams | 51 |
| White | 84 |
| Cass | 42 |
| Miami | 22 |
| Benton | 57 |
| Carroll | 16 |
| Howard | 11 |
| Grant | 18 |
| Blackford | 67 |
| Jay | 62 |
| Warren | 91 |
| Tippecanoe | 4 |
| Clinton | 9 |
| Tipton | 25 |
| Madison | 78 |
| Delaware | 19 |
| Randolph | 57 |
| Fountain | 87 |
| Montgomery | 77 |
| Boone | 90 |
| Hamilton | 88 |
| Henry | 72 |
| Wayne | 33 |
| Vermillion | 65 |
| Parke | 30 |
| Hendricks | 61 |
| Marion | 85 |
| Hancock | 55 |
| Rush | 86 |
| Fayette | 52 |
| Union | 6 |
| Putnam | 62 |
| Johnson | 83 |
| Shelby | 39 |
| Franklin | 6 |
| Vigo | 20 |
| Clay | 73 |
| Owen | 35 |
| Morgan | 69 |
| Decatur | 64 |
| Sullivan | 46 |
| Greene | 74 |
| Monroe | 27 |
| Brown | 1 |
| Bartholomew | 67 |
| Ripley | 12 |
| Dearborn | 54 |
| Jennings | 70 |
| Ohio | 38 |
| Knox | 8 |
| Daviess | 17 |
| Martin | 53 |
| Lawrence | 27 |
| Jackson | 60 |
| Jefferson | 56 |
| Switzerland | 44 |
| Scott | 92 |
| Pike | 2 |
| Dubois | 24 |
| Orange | 13 |
| Washington | 27 |
| Clark | 75 |
| Gibson | 71 |
| Crawford | 79 |
| Floyd | 42 |
| Posey | 5 |
| Vanderburgh | 37 |
| Warrick | 82 |
| Spencer | 76 |
| Perry | 10 |
| Harrison | 14 |

**Rank quartile**

- 1 - 23 (worst)
- 24 - 47
- 48 - 70
- 71 - 92 (best)

Source:  Indiana State Police Automated Reporting Information Exchange System (ARIES) as of March 23, 2015

Notes:
1) County rank composite is the rank of the average county ranks across the six collision metrics presente in Table 9.8..
2) Ties received the same rank.

**Map 9.12. Estimated costs ($ millions) of Indiana collisions, by county, 2014**
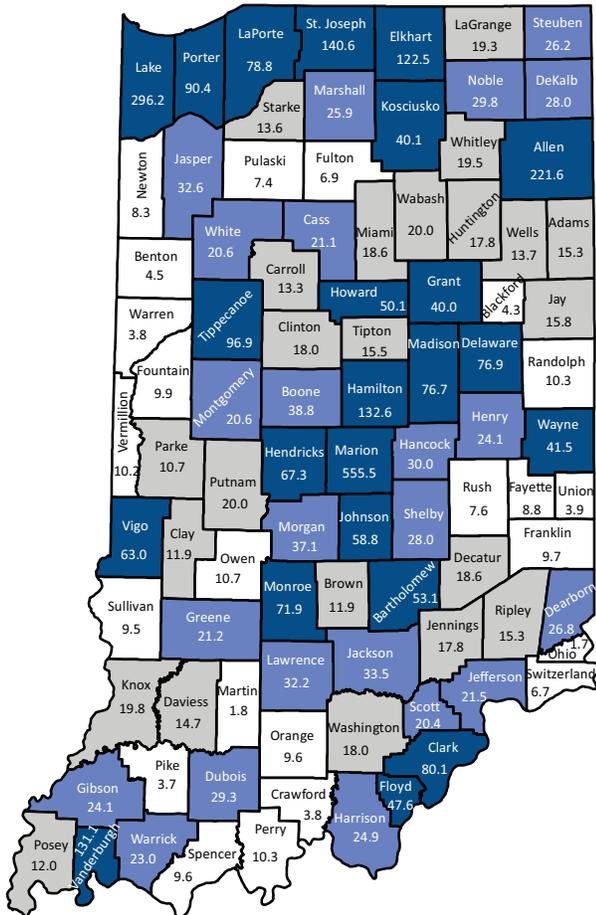
Median cost = $20.2 million
Mean cost = $41.2 million

Cost per capita of county collisions ($)

| | |
|---|---|
| ☐ | 1.7 - 10.7 |
| ☐ | 10.8 - 20.1 |
| ☐ | 20.2 - 38.8 |
| ☐ | 38.9 - 555.5 |

Lake 296.2
Porter 90.4
LaPorte 78.8
St. Joseph 140.6
Elkhart 122.5
LaGrange 19.3
Steuben 26.2
Starke 13.6
Marshall 25.9
Kosciusko 40.1
Noble 29.8
DeKalb 28.0
Newton 8.3
Jasper 32.6
Pulaski 7.4
Fulton 6.9
Whitley 19.5
Allen 221.6
Benton 4.5
White 20.6
Cass 21.1
Miami 18.6
Wabash 20.0
Huntington 17.8
Wells 13.7
Adams 15.3
Warren 3.8
Tippecanoe 96.9
Carroll 13.3
Howard 50.1
Grant 40.0
Blackford 4.3
Jay 15.8
Fountain 9.9
Clinton 18.0
Tipton 15.5
Madison 76.7
Delaware 76.9
Randolph 10.3
Vermillion
Montgomery 20.6
Boone 38.8
Hamilton 132.6
Henry 24.1
Wayne 41.5
Parke 10.7
Hendricks 67.3
Marion 555.5
Hancock 30.0
Rush 7.6
Fayette 8.8
Union 3.9
Putnam 20.0
Johnson 58.8
Shelby 28.0
Franklin 9.7
Vigo 63.0
Clay 11.9
Owen 10.7
Morgan 37.1
Bartholomew 53.1
Decatur 18.6
Sullivan 9.5
Greene 21.2
Monroe 71.9
Brown 11.9
Jennings 17.8
Ripley 15.3
Dearborn 26.8
Ohio 1.7
Knox 19.8
Daviess 14.7
Martin 1.8
Lawrence 32.2
Jackson 33.5
Jefferson 21.5
Switzerland 6.7
Pike 3.7
Orange 9.6
Washington 18.0
Scott 20.4
Clark 80.1
Gibson 24.1
Dubois 29.3
Crawford 3.8
Floyd 47.6
Posey 12.0
Vanderburgh 131.1
Warrick 23.0
Spencer 9.6
Perry 10.3
Harrison 24.9

**Map 9.13. Estimated costs per capita of Indiana collisions, by county, 2014**

Median cost = $558.8 per capita
Mean cost = $566.3 per capita

Cost per capita of county collisions ($)

| | |
|---|---|
| ☐ | 176.6 - 483.7 |
| ☐ | 483.8 - 558.7 |
| ☐ | 558.8 - 638.9 |
| ☐ | 639.0 - 1,006.4 |

Lake 604.3
Porter 541.0
LaPorte 706.7
St. Joseph 525.2
Elkhart 606.6
LaGrange 502.9
Steuben 763.6
Starke 588.9
Marshall 550.7
Kosciusko 509.8
Noble 625.3
DeKalb 659.9
Newton 585.3
Jasper 972.6
Pulaski 566.9
Fulton 336.2
Whitley 583.1
Allen 605.6
Benton 513.2
White 842.8
Cass 550.2
Miami 516.8
Wabash 618.9
Huntington 483.7
Wells 492.1
Adams 438.5
Warren 452.2
Tippecanoe 529.3
Carroll 666.9
Howard 603.8
Grant 583.2
Blackford 344.6
Jay 746.1
Fountain 593.4
Clinton 547.7
Tipton 1,006.4
Madison 589.6
Delaware 656.7
Randolph 405.2
Vermillion 647.4
Montgomery 540.8
Boone 627.4
Hamilton 438.2
Henry 491.6
Wayne 613.2
Parke 619.4
Hendricks 431.1
Marion 594.6
Hancock 416.9
Rush 452.5
Fayette 373.2
Union 542.8
Putnam 532.5
Johnson 398.2
Shelby 627.6
Franklin 422.4
Vigo 582.3
Clay 448.8
Owen 507.9
Morgan 531.7
Brown 797.3
Bartholomew 662.5
Decatur 701.1
Sullivan 453.2
Greene 646.5
Monroe 501.5
Jennings 634.3
Ripley 536.6
Dearborn 540.8
Ohio 282.2
Knox 523.1
Daviess 448.0
Martin 176.6
Lawrence 705.6
Jackson 766.5
Jefferson 661.6
Switzerland 638.9
Pike 296.9
Orange 489.3
Washington 646.7
Scott 859.4
Clark 701.4
Gibson 713.9
Dubois 690.9
Crawford 359.9
Floyd 625.5
Posey 470.0
Vanderburgh 720.4
Warrick 376.4
Spencer 459.2
Perry 528.2
Harrison 633.2

Sources:
Collisions: Indiana State Police Automated Reporting Information Exchange System (ARIES) as of March 23, 2015
Population 2014 estimates: U.S. Census Bureau accessed from http://www.stats.indiana.edu/, August 8, 2015

# DATA SOURCES

# DATA SOURCES

Data in this publication come from the following sources:

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- Indiana Bureau of Motor Vehicles, current as of March 24, 2015

- Indiana Department of Transportation, county level VMT (2013), current as of August 1, 2015

- Bureau of Transportation Statistics, State Transportation Statistics, state level VMT, accessed August 15, 2015 at www.bts.gov/publications/state_transportation_statistics/

- Fatality Analysis Reporting System, National Highway Traffic Safety Administration, accessed at www-fars.nhtsa.dot.gov/Main/index.aspx

- U.S. Census Bureau, Population Division, Table 2. Intercensal Estimates of the Resident Population by Sex and Age: April 1, 2000 to July 1, 2010 (ST-EST00INT-02-18), accessed at www.census.gov/popest/data/intercensal/state/state2010.html

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# INDIANA STANDARD CRASH REPORT, GLOSSARY, APPENDIX

# INDIANA OFFICER'S STANDARD CRASH REPORT

## INDIANA OFFICER'S STANDARD CRASH REPORT
### Electronic Version

Page | of

Local ID

| Date of Crash | Day of Week | Actual Local Time | County | Township | # Motor Vehicles | # Injured | # Dead | # Commercial Vehicles | # Deer |
|---|---|---|---|---|---|---|---|---|---|

| Road Crash Occurred On | Nearest/Intersecting Road/MileMarker/Interchange | If not an intersection, number of feet from | Direction | Road Classification |
|---|---|---|---|---|

| Inside Corporate Limits? | City/Town or Nearest City/Town | Property? | Crash Latitude | Crash Longitude |
|---|---|---|---|---|

| Driver #1 | Driver #2 | Driver #3 | Driver #4 |
|---|---|---|---|

**Primary Cause / Vehicle 1 / Vehicle 2 / Vehicle 3 / Vehicle 4**

### Driver Contributing Circumstances
- Alcoholic Beverages
- Illegal Drugs
- Prescription Drugs
- Driver Asleep or Fatigued
- Driver Illness
- Unsafe Speed
- Failure to Yield
- Disregard Signal
- Left of Center
- Improper Passing
- Improper Turning
- Improper Lane Usage
- Following Too Closely
- Unsafe Backing
- Overcorrecting
- Ran off Road
- Wrong Way on One Way
- Pedestrian's Action
- Passenger Distraction
- Restriction Violation
- Jackknifing
- Cell Phone Usage
- Other Telematics
- Driver Distracted
- Speed/Weather Conditions
- Other
- None

### Vehicle Contributing Circumstances
- Engine Failure or Defective
- Accelerator Failure or Defective
- Brake Failure or Defective
- Tire Failure or Defective
- Headlight(s) Defective or Not On
- Other Lights Defective
- Steering Failure
- Window/Windshield Defective
- Oversize/Overweight Load
- Insecure/Leaky Load
- Tow Hitch Failure
- Other
- None

### Environment Contributing Circumstances
- Glare
- Roadway Surface
- Holes/Ruts in Surface
- Shoulder Defective
- Road Under Construction
- Severe Crosswinds
- Obstruction Not Marked
- Lane Marking Obscured
- View Obstructed
- Animal/Object in Roadway
- Traffic Ctl Inop/Missing/Obscure
- Utility Work
- Other
- None

### Area Information
- Hit and Run
- School Zone
- Rumble Strips
- Locality
- Light Condition
- Weather Conditions
- Surface Condition
- Type of Median
- Type of Roadway Junction
- Road Character
- Roadway Surface
- Construction | If Yes, Construction Type
- Traffic Control Devices
- Traffic Control Device Operational?
- Was this crash the result of aggressive driving?

Total Estimate of all damage in the Crash:

| Other Property Damage (1) | State Property | Owner's Name and Address |
|---|---|---|
| Other Property Damage (2) | State Property | Owner's Name and Address |

### Witness/Other Participant
- Witness | # | Name
- Other Participant
- Address etc.
- Phone # | Location at Time of Crash
- Witness | # | Name
- Other Participant
- Address etc.
- Phone # | Location at Time of Crash

### Non-Motorist
| (Last Name, First Name, MI) | |
|---|---|
| Non-Motorist Type | Non-Motorist Action |
| Apparent Physical Condition | |
| Cited? | Direction |
| Street/Highway | |
| Traffic Control? | If yes, was traffic control operational? |

| Local ID | | | | Page | of |
|---|---|---|---|---|---|

| Type of Crash | | | | | |
|---|---|---|---|---|---|
| Time Notified | Time Arrived | Other Location of Investigation | | | |
| Assisting Officer | | ID No. | Agency | Investigation Complete? | Photos Taken? |
| Assisting Officer | | ID No. | Agency | Date of Report | |
| Investigating Officer | | ID No. | Agency | Reviewing Officer | |

## Narrative

## UNIT INFORMATION

Local ID

Page ____ of ____

| Driver's Name (Last, First, MI) | Safety Equipment Used |
|---|---|
| Address (Street, City, State, Zip) | Safety Equipment Effective? |
| | Ejection/Trapped |

| Date of Birth | Age | Gender | EMS No. | Immed Attn | Driver Injury Status |
|---|---|---|---|---|---|
| Driver's License # | Lic Type | CDL Class | Lic State | Nature of Most Severe Injury | |

**Apparent Physical Status**
- Normal
- Had Been Drinking
- Handicapped
- Ill
- Asleep/Fatigued
- Drugs/Medication
- Unknown

**Restrictions**
- Glasses/Contact Lenses
- Outside Rearview Mirror
- Daylight Driving
- Automatic Transmission
- Special Controls
- Employment Only
- Motorcycle Only
- To/From Employment
- Employer's Vehicle Only
- State-Owned Vehicles
- PP Chauffeurs Taxi Only
- Power Steering
- Special Restrictions
- Probation DWI
- Probation HTO
- None

Location of Most Severe Injury

**If Cited?** | **IC Codes**
- Infraction
- Misdemeanor
- Felony

**Test Given** NONE
**Type Given**
- Blood
- Urine
- Breath
- SFST
- PBT

Alcohol Results

Certified Test — Pending

PBT

Drug Results

| Veh# | Color | Vehicle Year | Make | Model | Style |
|---|---|---|---|---|---|
| # Occupants | | Lic Year | License # | | License State |
| # Axles | Speed Limit | Insured By | | | Phone Number |

**Initial Impact Area**
- Undercarriage
- Trailer
- None
- Unknown

Front / Rear

Vehicle Identification#

Registered Owner's Name (Last, First, MI) — Same as Driver

Address (Street, City, State, Zip)

**Areas Damaged (Multiples)**
- Undercarriage
- Trailer
- None
- Unknown

Front / Rear

| Towed? | To | | Reason |
|---|---|---|---|
| | By | | |
| | Lic State | Lic Year | Registered Owner's Name (Last, First, MI) — Same as Driver |
| License# | | Address (Street, City, State, Zip) | |
| Veh Year | Make | | |
| | Lic State | Lic Year | Registered Owner's Name (Last, First, MI) — Same as Driver |
| License# | | Address (Street, City, State, Zip) | |
| Veh Year | Make | | |

Vehicle Use

Emergency Run? | Fire? NO

Vehicle Type

Pre-Crash Vehicle Action

Direction of Travel

**Type of Primary/Secondary Roadway**

One Way Traffic
- One Lane
- Two Lanes
- Multi-Lanes (3 or more)

Two Way Traffic
- Two Lanes
- Multi-Lane Divided (3 or more)
- Multi-Lane Undivided 2 way left turn
- Multi-Lane Undivided (3 or more)

- Private Drive
- Alley

Commercial Vehicle: Carrier's Name and Address

Event Collision With

| HAZMAT Proper Shipping Name: | | State DOT# | |
|---|---|---|---|
| US DOT# | ICC# | CMV Inspection | If Yes |
| Gross Vehicle Weight Rating | | Cargo Body Type | |
| HAZMAT Placard | HAZMAT Release of Cargo | HAZMAT 4-Digit ID# | Hazzard Class # |

# GLOSSARY

### Aggressive Driving
A collision is defined as involving aggressive driving when the driver of a motor vehicle was engaged in at least two of the following actions: (1) driving at an unsafe speed; (2) failing to yield right of way; (3) disregarding a regulatory signal/sign; (4) improper passing; (5) improper turning; (6) improper lane usage; or (7) following too closely.

### Alcohol Involvement/Alcohol-related
The terms "alcohol-related" or "alcohol-involved" do not indicate that a crash or fatality was caused by the presence of alcohol.

National Highway Traffic Safety Administration (NHTSA) defines a fatal crash as alcohol-related or alcohol-involved if at least one driver or nonoccupant (such as a pedestrian or pedalcyclist) involved in the crash is determined to have had a Blood Alcohol Concentration (BAC) of 0.01 gram per deciliter (g/dL) or higher. NHTSA defines a nonfatal crash as alcohol-related or alcohol-involved if police indicate on the police accident report that there is evidence of alcohol present. The code does not necessarily mean that a driver or nonoccupant was tested for alcohol.

Indiana defines a crash as alcohol-related or alcohol-involved if any of the following are true: (1) *alcoholic beverages* is listed as the primary factor of the collision; (2) *alcoholic beverages* is listed as a contributing circumstance in the collision; (3) any vehicle driver or non-motorist (pedestrian, pedalcyclist) involved in the collision had a BAC test result greater than zero; (4) the collision report lists the apparent physical condition of any vehicle driver or non-motorist involved as had been drinking; or (5) a vehicle driver is issued an Operating While Intoxicated (OWI) citation.

### Alcohol-impaired
A collision in which any vehicle driver involved has a BAC test result at or above 0.08 g/dL.

### Attributable/Attributablity
A vehicle and/or driver is considered attributable in a collision when linked by the reporting officer to the primary factor or cause of the collisions.

### Blood Alcohol Concentration
The BAC is measured as a percentage by weight of alcohol in the blood (grams/deciliter). A positive BAC level (0.01 g/dL and higher) indicates that alcohol was consumed by the person tested; a BAC level of 0.08 g/dL or more indicates that the person was legally impaired.

### Bus
Large motor vehicles used to carry nine or more passengers, including school buses, inter-city buses, and transit buses.

### Census-based Locale
*Urban* is defined as Census 2010 Urban Areas, *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).

### Cited/Citation
When a person involved in a collision is charged with a violation (traffic or criminal) relating to the motor vehicle crash. The document produced is a citation.

### Combination Vehicle
A truck consisting primarily of a transport device which is a single-unit truck or truck tractor together with one or more attached trailers.

### Commercial Vehicle
1. *A Truck.* A vehicle equipped for carrying property and having a Gross Vehicle Weight Rating (GVWR) or Gross Combination Weight Rating (GCWR) over 10,000 pounds.

2. *A Bus.* A motor vehicle designed to transport nine or more occupants.

3. *Any Vehicle.* Displaying a hazardous materials placard.

### Contributing Circumstance
Actions of the driver, apparent environmental conditions, or apparent vehicle conditions that contributed to the collision.

### Collision/Crash
An event that produces injury and/or property damage, involves a motor vehicle in transport, and occurs on a trafficway or while the vehicle is still in motion after running off the trafficway.

### Collision/Crash Severity
1. *Fatal Crash.* A police-reported crash involving a motor vehicle in transport on a trafficway in which at least one person dies within 30 days of the crash.

2. *Injury Crash.* A police-reported crash involving a motor vehicle in transport on a trafficway in which no one died but a least one person was reported to have: (1) an incapacitating injury; (2) a non-incapacitating injury; or (3) a possible, not visible injury.

3. *Property Damage Only Crash.* A police-reported crash involving a motor vehicle in transport on a trafficway in which no one involved in the crash suffered any injuries. Indiana statute states the estimated property damage must be $1000 or more.

### Dark (Lighted)
The time between dusk and dawn, and where there are lights designed and installed to illuminate the roadway. This does not include lighting from storefronts, houses, etc.

### Dark (Not lighted)
The time between dusk and dawn, and where there are no lights designed or installed to illuminate the roadway.

*Glossary, continued*

**Day**
From 6:00a to 5:59p.

**Disregarding Traffic Signal**
A collision where one or more drivers disregarded a traffic signal or flashing signal at a road intersection (excludes interstates).

**Driver**
An occupant of a vehicle who is in physical control of a motor vehicle in transport, or for an out-of-control vehicle, an occupant who was in control until control was lost.

**Ejection**
Refers to occupants being totally or partially thrown from the vehicle as a result of an impact or rollover.

**Fatal Injury**
Any injury that results in death within a 30-day period after the crash occurred.

**Fixed Object**
Stationary structures or substantial vegetation attached to the terrain. Examples include guardrail, bridge railing or abutments, trees, utility poles, ditches, culverts, and buildings.

**Gross Combination Weight Rating (GCWR)**
The value specified by the manufacturer as the loaded weight of a combination (articulated) motor vehicle. In absence of a value specified by the manufacturer, GCWR will be determined by adding the GVWR of the power unit and the total weight of the towed unit and any load thereon.

**Gross Vehicle Weight Rating (GVWR)**
The maximum rated capacity of a vehicle, including the weight of the base vehicle, all added equipment, driver and passengers, and all cargo loaded into or on the vehicle. Actual weight may be less than or greater than GVWR.

**Hazardous Materials**
Any substance or material which has been determined by the U.S. Department of Transportation, or other authorizing entity, to be capable of posing an unreasonable risk to health, safety, and property when transported in commerce. Any motor vehicle transporting quantities of hazardous materials in quantities above the thresholds established by the USDOT, or other authorized entity, is required to display a hazardous materials placard.

**Hazardous Materials Placard**
A sign that must be affixed to any motor vehicle transporting hazardous materials in quantities above the thresholds established by the USDOT, or other authorized entity. This placard identifies the hazard class division number, four-digit hazardous material identification number or name of the hazardous material being transported.

**ICJI**
Indiana Criminal Justice Institute.

**Incapacitating Injury**
A non-fatal injury that prevents the injured person from walking, driving, or normally continuing the activities the person was capable of performing before the injury occurred. Hospitalization is usually required. Examples are severe lacerations, broken limbs, skull fracture, crushed chest, internal injuries, etc. The most recent ARIES upgrade added a clarification to reporting officers on the definition of incapacitating injuries criteria to include *transported from scene for treatment.*

**Inspection Level 1 - North American Standard Inspection**
An inspection that includes examination of driver's license, medical examiner's certificate and waiver, if applicable, alcohol and drugs, driver's record of duty status as required, hours of service, seat belt, vehicle inspection report, brake system, coupling devices, exhaust system, frame, fuel system, turn signals, brake lamps, tail lamps, head lamps, lamps on projecting loads, safe loading, steering mechanism, suspension, tires, van and open-top trailer bodies, wheels and rims, windshield wipers, emergency exits on buses and hazardous materials (HM) requirements, as applicable.
www.fmcsa.dot.gov/safety-security/safety-initiatives/mcsap/insplevels.htm

**Inspection Level 3 - Driver-only inspection**
A roadside examination of the driver's license, medical certification and waiver, if applicable, driver's record of duty status as required, hours of service, seat belt, vehicle inspection report, and HM requirements, as applicable.
http://www.fmcsa.dot.gov/safety-security/safety-initiatives/mcsap/insplevels.htm

**Intersection**
An area of roadway which is: (1) at a crossing or connection of two or more roadways not classified as a driveway; and (2) the area of the roadway measured less than 33 feet from the apex of two roadways at the curb or boundary line. Types of intersections noted on the Indiana Crash Report are: 1) T-intersections; 2) Y-intersections; 3) Four-way intersection; 4) Interchange; 5) Five points or more; 6) Ramp; and 7) Traffic circle/roundabout.

**ISP**
Indiana State Police.

**Jackknife**
Jackknife can occur at any time during the crash sequence. Jackknifing is generally restricted to truck tractors pulling a trailing unit in which the trailing unit and the pulling vehicle rotate with respect to each other.

**Junction**
Area formed by the connection of two roadways, including intersections, interchange areas, and entrance/exit ramps.

*Glossary, continued*

### Lane Control
Visible lane markings such as hash marks or lines that separate lanes of travel.

### Large Trucks
Trucks over 10,000 pounds gross vehicle weight rating, including single unit trucks and truck tractors.

### Licensed Drivers
The annual count of licensed drivers in a given location (e.g., county, state, nation).

### Light Trucks
Trucks of 10,000 pounds gross vehicle weight rating or less, including pickups, vans, truck-based station wagons, and sport utility vehicles.

### Motorcycle
A two- or three-wheeled motor vehicle designed to transport one or two people. This category can include motor scooters, minibikes, and mopeds, etc.; however, the Indiana reporting system separates the two categories.

### Motor Vehicle in Transport
A motor vehicle in motion on the trafficway or any other motor vehicle on the roadway, including stalled, disabled, or abandoned vehicles.

### Night
From 6:00p to 5:59a.

### Non-incapacitating Injury
An injury, other than a fatal or incapacitating injury, which is evident to the officer at the scene of the crash and may require medical treatment, although hospitalization is usually not required. Examples are abrasions, minor bleeding, and lacerations.

### Non-motorist
Any person who is not an occupant of a motor vehicle in transport and includes the following: (1) pedestrians; (2) pedalcyclists; and (3) persons riding in animal-drawn vehicles.

### Not Injured
*Not injured* status includes individuals involved in collisions reported as *null* values in the injury status code field. While reporting officers are instructed to enter all drivers in ARIES, passengers are only to be entered in the crash report if an injury occurs; therefore, not injured counts should be interpreted with caution.

### Occupant
Any person who is in or upon a motor vehicle in transport. Includes the driver, passengers, and persons riding on the exterior of a motor vehicle.

### Odds
Odds are calculated as the ratio of the count of an incident occurring to the count of the incident not occurring. For example, in 100 crashes, if there are 24 involving serious bodily injury, the odds of a serious bodily injury (SBI) collision = 24/76 = .32).

### Odds ratio
The ratio of the odds of an event occurring in one group to the odds of it occurring in another group. For example, if the odds of SBI for motorcycle riders and passenger car occupants is .21 and .01, respectively, the OR of motorcyclists compared to car occupants = .21/.01 = 19.2 (i.e., motorcyclists are 19.2 times more likely to experience an SBI than are car occupants).

### Passenger
Any occupant of a motor vehicle who is not a driver.

### Passenger Car
Motor vehicles used primarily for carrying passengers, including convertibles, sedans, and station wagons.

### Passenger Vehicles
Passenger vehicles are defined as *passenger cars, pickup trucks, SUVs,* and *vans.*

### Pedalcyclist
A person on a bicycle or vehicle that is powered solely by pedals.

### Pedestrian
Any person walking or not in or upon a motor vehicle or other vehicle.

### Pedestrian Collision
A collision in which a pedestrian was involved or *pedestrian action* was listed as a contributing factor to the collision.

### Pickup Truck
A motor vehicle designed to carry ten persons or less, with an exposed bed.

### Possible Injury
Any injury reported or claimed which is not visible. Example: the complaint of back or neck pain (normally included in non-incapacitating injury category).

### Primary Factor
The single factor which the investigating officer believes to be the main or primary factor which contributed to the collision's occurrence. Each collision may have only one primary factor.

> *Driver: Unsafe actions* include primary factors of *following too closely, failure to yield right of way, unsafe backing, disregard signal/reg sign, improper turning, speed too fast for weather conditions, unsafe lane movement, improper lane usage, unsafe speed, left of center, improper passing* and *wrong way on one way.*

## Glossary, continued

*Driver: Loss of control* include primary factors of *ran off road right, ran off road left* and *overcorrecting/oversteering.*

*Driver: Distraction* include primary factors of *driver distracted (explained in narrative), cell phone usage, other telematics in use* and *passenger distraction.*

*Driver: Cognitive impairment* include primary factors of *driver asleep or fatigued, driver illness, alchoholic beverages, prescription drugs* and *illegal drugs.*

*Environmental* include primary factors of *animal on roadway, roadway surface condition, view obstructed, other (explained in narrative)-environment, obstruction not marked, severe cross-winds, traffic control problem, holes/ruts in surface, glare, lane marking obscured, road under construction* and *shoulder defective.*

*Vehicle-related* include primary factors of *brake failure or defective, other (explained in narrative)-vehicle, tire failure or defective, insecure/leaky load, steering failure, accelerator failure or defective, engine failure or defective, oversize/overweight load, headlight defective or not on, tow hitch failure* and *other lights defective.*

*All other* include primary factors of *other (explained in narrative)-driver, pedestrian action, not a factor-driver, not a factor-vehicle, violation of license restriction* and *not a factor-environment.*

*Unknown* include primary factors of *unknown* and invalid.

### Property Damage Collision
A police-reported crash involving a motor vehicle in transport on a trafficway in which no one involved in the crash suffered any injuries but at least one vehicle or property was damaged.

### Registered Vehicles
The annual count of registered vehicles in a given location (e.g., county, state, nation).

### Relative Risk
A measure of the risk of injury determined by comparing the likelihood of an injury in collisions involving certain circumstances with the likelihood of an injury in collisions not involving those circumstances (e.g., the likelihood of a fatal injury when a collision involves speeding versus when it does not). If two percent of collisions involving speeding result in a fatality and one percent of collisions not involving speeding result in a fatality, the relative risk of a fatality when speed is involved equals two (2% / 1%); that is, collisions that involve speeding are two times more likely to result in a fatality than those that do not. Relative risk is often used to measure the risk of a fatal injury but can be used to measure the risk of any type of injury.

### Restraint Use
The occupant's use of available vehicle restraints including lap belt, shoulder belt, or automatic belt.

### Roadway
That part of a trafficway designed, improved, and ordinarily used for motor vehicle travel.

### Rollover
Rollover is defined as any vehicle rotation of 90 degrees or more about any true longitudinal or lateral axis. Includes rollovers occurring as a first harmful event or subsequent event.

### Seating Position
The location of the occupants in the vehicle. More than one can be assigned the same seat position; however, this is allowed only when a person is sitting on someone's lap.

### Semi-trailer
A trailer, other than a pole trailer, designed for carrying property and so constructed that part of its weight rest upon or is carried by the power unit.

### Single-unit Truck
A medium or heavy truck in which the engine, cab, drive train, and cargo area are all on one chassis. (Can have two axles and six tires on the ground, or three or more axles).

### Speed-related
A collision is identified as speed-related if any one of the following conditions is met: (1) *unsafe speed* or *speed too fast for weather conditions* is listed as the primary or contributing factor of the collision; (2) a vehicle driver is issued a speeding citation.

### Sport Utility Vehicle (SUV)
A multi-purpose motor vehicle designed for carrying less than ten persons, which is constructed on a truck chassis or with special features for occasional off-road operation, other than a pickup truck. These vehicles are generally four-wheel-drive (4x4) and have increased ground clearance, and a gross vehicle weight rating (GVWR) of 10,000 pounds or less.

### Tractor (Semi)
A motor vehicle consisting of a single power unit device designed primarily for pulling semi-trailers.

### Traffic Circle/Roundabout
An intersection of roads where vehicles must travel around a circle to continue on the same road or to connect to an intersecting road.

### Traffic Control Signal
Includes the red/green/yellow signal and/or a flashing signal.

### Trapped
Persons who are restrained in the vehicle by damaged vehicle components as a result of a crash, and who have to be freed from the vehicle.

### Unit
Denotes a motor vehicle, pedestrian, pedalcyclist, or other entity involved in the collision.

### Unknown Injury
Injuries reported on the *Indiana Crash Report* as: 1) *refused* (treatment); 2) *unknown*; 3) *not reported*; and 4) invalid codes.

## Unsafe Backing

Backing increases the risk for crash because it is much more difficult to see obstacles behind you and requires more space to maneuver. Common unsafe backing actions include: *Improper body position, speed too fast, failure to yield and determine the path of travel is clear, failure to look back during the whole maneuver until the vehicle is completely stopped,* and *incorrect steering.*

## Van

A motor vehicle consisting primarily of a transport device that has a gross vehicle weight rating of 10,000 pounds or less and is basically a "box on wheels" that is identifiable by its enclosed passenger and/or cargo area, step-up floor, and relatively short (or nonexistent) hood. Examples are passenger vans, cargo or delivery vans, and van-based mini-motor homes.

## Vehicle Miles Traveled

The annual vehicle distance traveled in miles (VMT).

## Weekday

From 6:00a Monday to 5:59p Friday.

## Weekend

From 6:00p Friday to 5:59a Monday.

## Work Zone

An area of a trafficway where construction, maintenance, or utility work activities are identified by warning signs/signals/indicators, including those on transport devices (e.g., signs, flashing lights, channelizing devices, barriers, pavement markings, flagmen, warning signs, and arrow boards mounted on the vehicles in a mobile maintenance activity) that mark the beginning and end of a construction, maintenance, or utility work activity.

It extends from the first warning sign, signal, or flashing lights to the END ROAD WORK sign or the last traffic control device pertinent for that work activity.

Work zones also include roadway sections where there is ongoing, moving (mobile) work activity such as lane line painting or roadside mowing only if the beginning of the ongoing, moving (mobile) work activity is designated by warning signs or signals.

## Young Driver

A driver of a motor vehicle whose age is between the ages of 15 and 20 years old.

# APPENDIX A: Methods for producing economic costs of traffic collisions in Indiana

For the purposes of *Indiana Crash Facts, economic costs* represent the monetary and non-monetary impacts produced by injuries and property damage in traffic collisions. These costs are calculated by taking existing estimates of costs, broken down into various impact categories, by the incidence of traffic injuries and property damage to vehicles in collisions. The general methodology used here follows that in economic cost reports produced by the National Highway Traffic Safety Administration (NHTSA).[1] Several intermediate procedures were performed on the data to arrive at final cost estimates.

## 1. Injury classifications

Cost estimates are based on the *Maximum Abbreviated Injury Scale* (MAIS), a medical assessment of the most severe injury incurred.[2] The MAIS scale ranges from MAIS 0 (no injury), to MAIS 6 (fatality), with incremental levels representing increasing levels of bodily damage (i.e., decreasing probabilities of survival). Indiana crash reports, however, use the KABCO (K=fatal; A=incapacitating; B=non-incapacitating; C=possible; O=not injured) system of injury classification, in which an officer with no medical training can make a general assessment of the injury severity to individuals involved in the collision. As such, Indiana injury data classifications must be converted to the MAIS system to obtain the cost estimates.

Data taken from the National Automotive Sampling System (NASS) from 1982 to 1986 were used to create this injury "translator".[3,4] These data encompass a representative survey of crashes in the United States and provide individual-level information on individuals involved; from it, KABCO injuries can be proportionally distributed into MAIS categories. Data were taken from this time period because it represents the most recent data that contain both KABCO and MAIS designations of injury at the individual level. Note that the injury translator can apportion fatalities (K) to MAIS designations, but the data in *Indiana Crash Facts* does not do this for ease of interpretation.

## 2. Cost estimates and price deflation

Economic cost estimates were obtained from NHTSA economic cost reports.[5] The data are in year 2000 US dollars and accordingly must be adjusted for the effects of the time value of money and for regional price differences. These adjustments were made using annual average price indexes for the United States and Midwest published by the Bureau of Labor Statistics and are current through 2014.[6]

Once costs were adjusted to current economic conditions, the values were multiplied by the incidence of injuries and vehicles that sustained property damage only (i.e., no injured occupants) to arrive at total cost estimates.

[1]Blincoe, L., Seay. A., Zaloshnja, E., Miller, T., Romano, E., Luchter, S., & R. Spicer. (May 2002). The economic impact of motor vehicle crashes, 2000. (DOT HS809 446) National Highway Traffic Safety Administration, Washington D.C.

[2]Association for the Advancement of Automotive Medicine. www.carcrash.org

[3]www.nhtsa-tsis.net/projects/NHTSA/NHTSA_NASS.htm

[4]National Automotive Sampling System, 1982-1986; "*Ejection Mitigation Using Advanced Glazing: A Status Report, November 1995*", NHTSA

[5]Blincoe et al., 2002.

[6]Bureau of Labor Statistics. Average Price Data (Consumer Price Index – CPI). www.bls.gov/cpi/#tables.

# INDIANA CRASH FACTS

## 2014

An electronic copy of this document can be accessed via the PPI website (www.policyinstitute.iu.edu), the ICJI traffic safety website www.in.gov/cji/), or you may contact the Indiana University Public Policy Insitute at 317-261-3000.

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