

## INDIANA CRASH FACTS 2022

BICYCLISTS



INDIANA UNIVERSITY

**PUBLIC POLICY INSTITUTE** 



**SEAT BELT USE** 

CHILD PASSENGER SAFETY

**ALCOHOL-IMPAIRED** 

**SPEEDING** 

## INDIANA CRASH FACTS 2022

An Indiana Traffic Safety Facts publication

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## **INTRODUCTION**

Designing and implementing effective traffic safety policies requires data-driven analysis of traffic collisions and their causes. To help in the policy-making process, the Indiana University Public Policy Institute (PPI) collaborates with the Indiana Criminal Justice Institute (ICJI) to analyze annual crash data. These statistics are used to inform the public, practitioners, as well as state and national policy makers on matters of road safety. They also serve as the analytical foundation of traffic safety program planning and design in Indiana. A more complete explanation of the ICJI goal-setting process is provided in the Problem Identification chapter.

This report—Indiana Crash Facts 2022—is one of two annual traffic safety publications produced by PPI.¹ The analysis is organized in seven chapters—problem identification, county comparisons, collisions, motorcycles, impaired driving, speed, and children and young drivers. Several additional aspects of traffic collisions are addressed within these chapters including occupant protection, non-motorists, collisions with deer, and work zones. Many of the data and analytical elements under each topic are based on guidelines provided by the U.S. National Highway Traffic Safety Administration (NHTSA).

## **Data**

The principal data used to analyze Indiana traffic collisions comes from the Automated Reporting Information Exchange System (ARIES) database maintained by the Indiana State Police. The data used to create this report was downloaded on January 25, 2023. The ARIES database is populated from the Indiana Officer's Standard Crash Report, completed by local and state law enforcement officers who respond to collisions. The more than 200 data items for each collision reported cover 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; and the information on drivers, passengers, pedestrians, pedalcyclists, and animal-drawn vehicle occupants involved in the collision.

Several additional data sources were used to complete the analysis, including license and registration data from the Indiana Bureau of Motor Vehicles, vehicle miles travelled from the Indiana Department of Transportation, seat belt survey data from the Purdue University Center for Road Safety, and population estimates and geographic data defining urban areas from the U.S. Census Bureau.

Data discrepancies may exist between the 2022 Indiana traffic safety reports and similar previous traffic safety reports for two reasons. First, some records in the ARIES database were updated with new or corrected information after data was downloaded for the creation of the previous reports. Second, prior to the 2022 analyses, people coded as drivers, injured [occupants], pedestrians, pedalcyclists, and animal drawn vehicle operators were included in the analysis. People coded as "other" who did not suffer a fatality were excluded from the analysis. However, for records created in ARIES 6, the coding for injured

passengers was changed to "other." The research team has incorporated this change into the current analysis. This difference from previously reported data will be most obvious for 2021 and in categories with high proportions of passengers such as motorcycles and child safety.

Missing data also may affect the robustness of the analysis for some topics presented here. For example, the number of vehicle occupant with unknown restraint status has increased over time. The analysis of occupant restraints typically has treated occupants who were recorded as not restrained and with unknown or missing restraint status as unrestrained. The level of missing data makes it difficult to assess the true proportion of occupants in crashes who were properly restrained. Similarly, assessing impaired driving trends is affected by missing results due to the backlog in analyzing blood alcohol content (BAC) and drug toxicology tests, as well as a lag in recording these results in ARIES.

### **ACKNOWLEDGEMENTS**

Special thanks to the Indiana Criminal Justice Institute, the National Highway Traffic Safety Administration, the Federal Highway Administration, the Indiana State Police, LexisNexis Coplogic Solutions, the Indiana Bureau of Motor Vehicles, the Indiana Department of Transportation, the Purdue University Center for Traffic Safety, and the Indiana University Business Research Center for their continued support and guidance throughout the process of creating these reports.

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<sup>1</sup>Indiana County Profiles 2022 is published under separate cover.



# PROBLEM IDENTIFICATION

## **PROBLEM IDENTIFICATION, 2022**

The Traffic Safety Division of the Indiana Criminal Justice Institute develops a set of benchmarks to assess the state of traffic safety in Indiana as part of the Triennial Indiana Highway Safety Plan (HSP3). These benchmarks correspond to priority program areas established by the National Highway Traffic Safety Administration and target fatal and injury collisions as they relate to overall injuries, impaired driving, seat belt and other restraint use, young drivers, motorcycle safety, dangerous driving, child passenger safety, and non-motorist injuries in collisions. Within each area, ICJI establishes specific annual data-driven goals and performance measures that address Indiana's traffic safety problem areas with particular focus on underserved and overrepresented demographics. The most recent plan, covering 2024–26, sets an annual 2% reduction for each fatality measure. For more details on specific goals, please refer to the ICJI Triennial Indiana Highway Safety Plan—FY 2024–FY 2026.

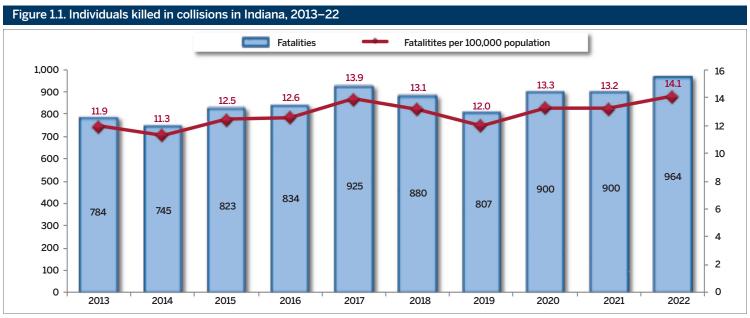
ICJI also works closely with the Indiana Department of Transportation (INDOT) to ensure there is consistency in goal setting between the HSP3—which approaches traffic safety from a policy and law enforcement perspective—and INDOT's Strategic Highway Safety Plan, which approaches traffic safety from an engineering and transportation planning perspective. Under current NHTSA requirements, the targets in the Triennial Highway Safety Plan and the Strategic Highway Safety Plan are not required to be identical, but ICJI has continued this practice to maintain consistency in goal setting.

This chapter includes general discussions of the goals identified in the Triennial Indiana Highway Safety Plan with corresponding baseline measures from the most recent complete year of Indiana crash data as well as historical data maintained by the Indiana State Police in the Automated Reporting and Information Exchange System (ARIES). The chapters that follow provide additional detail on these topics.

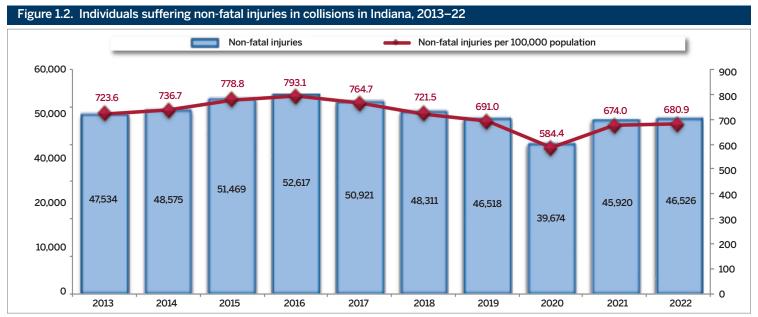
## **GOAL: Reduce fatalities and serious bodily injuries**

In Indiana, there were 964 traffic deaths in 2022, up from 900 in 2021. Traffic fatality rates have risen in recent years to 14.1 per 100,000 of the state's population—marking a 10-year high. Over the last few years, the fatality rates have increased steadily since reaching a five-year low of 12.0 per 100,000 population in 2019 (Figure 1.1).

The number of non-fatal injuries in collisions rose from 45,920 in 2021 to 46,526 in 2022 (Figure 1.2). The rate of non-fatal traffic injuries increased slightly to 681 per 100,000 population in 2022 from 674 per 100,000 population in 2021. While the 2021 and 2022 non-fatal injury rates were higher than in 2020, they were lower than the rates in 2013–19.



Sources: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated, Reporting Information Exchange System (ARIES), downloaded January 25, 2023; and U.S. Census Bureau, 2022 county population estimates.



Sources: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated. Reporting Information Exchange System (ARIES), downloaded January 25, 2023; and U.S. Census Bureau, 2022 county population estimates.

Note: Non-fatal injuries include those reported as incapacitating, non-incapacitating, refused [treatment], possible, not reported, and unknown.

Consistent with prior years, in 2022, the proportion of traffic fatalities that occurred in non-urban areas was greater than the proportion of all non-fatal traffic injuries that occurred in these areas. As shown in Figure 1.3, 65% of all traffic fatalities occurred outside urban areas, compared to 32% of non-fatal injuries. Urban areas made up 44% of fatalities and

68% of non-fatal injuries. Similarly, the fatality rates per 1,000 people involved in collisions were higher in non-urban areas than in urban areas. In 2022, the suburban, exurban, and rural rates of fatalities per 1,000 people involved in collisions were 5.4, 7.0, and 6.5, respectively, compared to 1.6 per 1,000 people involved in collisions in urban areas.

Figure 1.3. Fatality rates, fatalities, and non-fatal injuries in collisions in Indiana by locale type, 2022 Fatalities per 1,000 people involved in collisions by locale type 10 8 6 Exurban 4 Rural 7.0 6.5 2 Urban 1.6 0 Percentage of total fatalities Percentage of non-fatal injuries Exurban Exurban 14% Rural 8% Rural Urban 14% Suburban 44% 17% Urban 68% Suburban 27%

Sources: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023; and U.S. Census Bureau, 2010 TIGER/line shapefile—Urban areas.

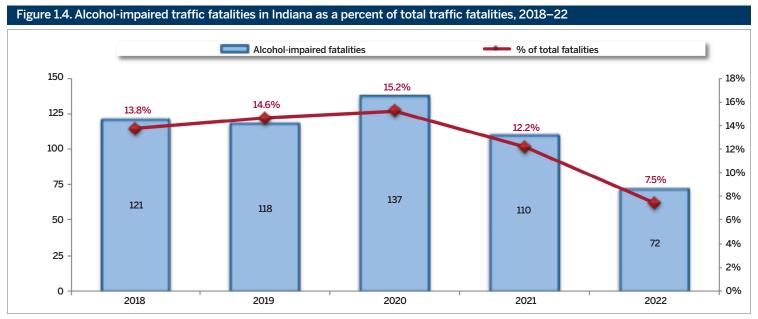
#### Notes

- 1) Census locales for traffic collisions are defined as urban, suburban, exurban, or rural. Urban areas are those defined in the 2010 census generally by density and size. Suburban, exurban, and rural areas were created by the research team based on the 2010 urban boundaries. See the Glossary for a complete explanation.
- 2) Non-fatal injuries include those reported as incapacitating, non-incapacitating, refused [treatment], possible, not reported, and unknown.
- 3) Excludes fatalities and injuries where locale could not be determined.
- 4) Percentages may add to more or less than 100% due to rounding.

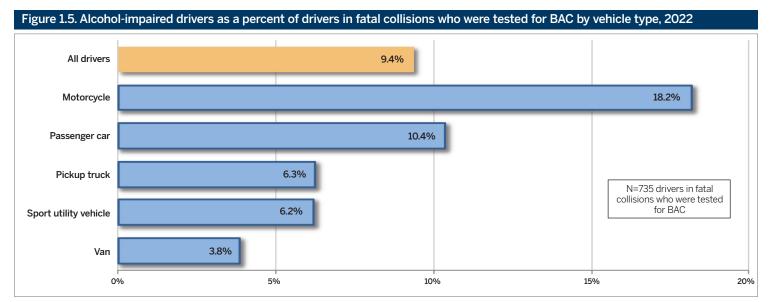
## **GOAL: Reduce impaired driving**

According to available blood alcohol content (BAC) test results reported in ARIES, 72 people died in alcohol-impaired driving crashes in 2022 (Figure 1.4). The percentage of Indiana traffic fatalities that involved an impaired driver dropped to 8% from 12% in 2021.<sup>2</sup>

Among drivers in 2022 fatal crashes who were tested for blood alcohol content, 9% were legally impaired. Rates of alcohol impairment for these drivers varied by vehicle type. The highest percentages of impaired driving were among motorcycle operators at 18% and passenger car drivers at 10% (Figure 1.5).



Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.



Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

### Notes:

- 1) Includes only passenger vehicles (passenger cars, pickup trucks, sport utility vehicles, and vans) and motorcycles (motorcycles, motor driven cycles—Class A and Class B, mopeds, and motorized bicycles). Non-motorists and other vehicle types are excluded.
- 2) Excludes drivers in fatal collisions who were not tested.
- 3) Alcohol-impaired drivers are those with BAC of 0.08 g/dl or greater. BAC results greater than 0.59 g/dL are excluded from the analysis.

<sup>&</sup>lt;sup>2</sup>According to the most recent publication available utilizing the NHTSA's Fatality Analysis Reporting System, 25% of all 2021 Indiana traffic fatalities involved an alcohol-impaired driver (NHTSA National Center for Statistics and Analysis, 2023a). This data may differ from the data taken from ARIES because NHTSA estimates BACs when alcohol tests are unknown.

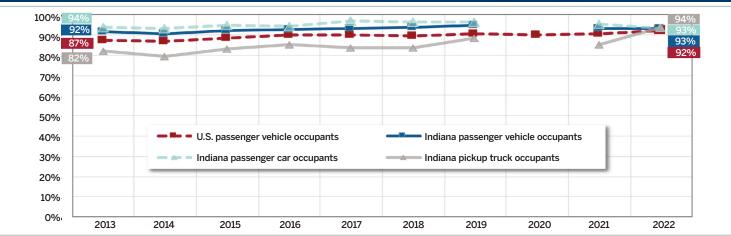
### **GOAL: Increase seat belt use**

Indiana observational studies of seat belt use—conducted annually by ICJI and the Purdue University Center for Road Safety—show that Indiana's overall seat belt use rates have exceeded national rates for at least 10 years. No study was conducted in 2020. Between 2013 and 2022, Indiana's observational rate of seat belt use among passenger vehicle occupants remained consistent at 93% on average, a rate that was one percentage point higher than the most recently reported national rate (Figure 1.6). Typically, observed seat belt rates in Indiana for passenger cars are higher than for pickup trucks. However, in 2022, the seat belt

use rate of occupants in pickup trucks exceeded the use rate for occupants in passenger cars.

Overall, in 2022, 76% of passenger vehicle occupants involved in collisions were known to be properly restrained. However, restraint use varied by injury severity and locale type. Occupants in collisions in suburban and exurban areas were known to be properly restrained more often than people in urban areas and rural areas (Figure 1.7). In suburban and exurban areas, about 80% of passenger vehicle occupants were restrained. In urban and rural areas, 75% were restrained. Restraint use also is consistently much lower among those killed in collisions than for occupants in collisions generally.

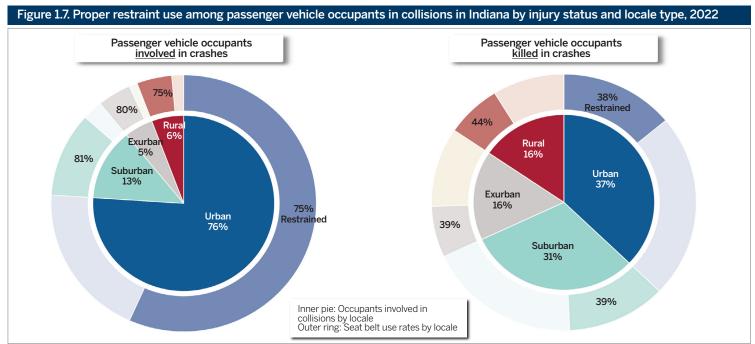
Figure 1.6. Comparison of observed seat belt usage rates in Indiana and the U.S. by vehicle type, 2013-22



Sources: Indiana—Purdue University Center for Road Safety, 2022; and U.S.—NHTSA National Center for Statistics and Analysis. 2023b.

1) Car and pickup truck restraint usage rates are specific to Indiana only.

2) The annual observational seat belt survey was not conducted for Indiana in 2020.



Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded, January 25, 2023.

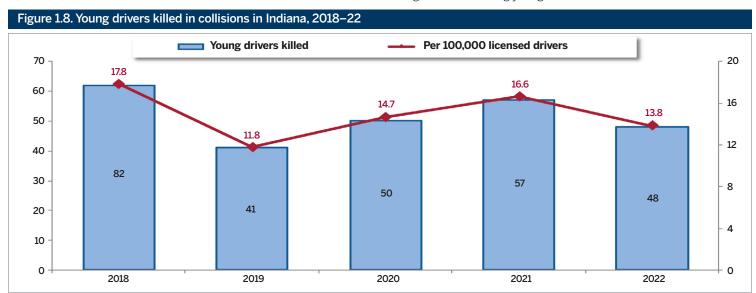
#### Notes:

- 1) Census locales for traffic collisions are defined as urban, suburban, exurban, or rural. Urban areas are those defined in the 2010 census generally by density and size. Suburban, exurban, and rural areas were created by the research team based on the 2010 urban boundaries. See the Glossary for a complete explanation.
- Occupant restraints include seat belts as well as child restraints.
- By Passenger vehicles include vehicles reported as a passenger cars, pickup trucks, sport utility vehicles, or vans.
- 1) Excludes cases for which locale could not be determined.
- 5) Null and unknown responses are included in the denominator for restraint calculations.

## **GOAL: Reduce young driver involvement in fatal crashes**

The overall number of young drivers involved in collisions decreased from 41,395 in 2021 to 39,030 in 2022 (see Table 7.4 in the Children and Young Drivers chapter). During this same period, the number of young drivers killed in collisions also decreased from 57 in to 48 (Figure 1.8).

In 2022 and consistent with previous years, collision involvement rates were higher among young drivers ages 15 to 20 at 1,123 per 10,000 licensed drivers than for any other age group (Figure 1.9). The rate for young drivers was more than three times higher than the lowest rate, which was for drivers ages 75 and older at 347 per 10,000 licensed drivers. Research shows this dramatic difference likely is due in part to the lack of experience as well as increased novelty-seeking and risk-taking behaviors among young drivers.<sup>3</sup>

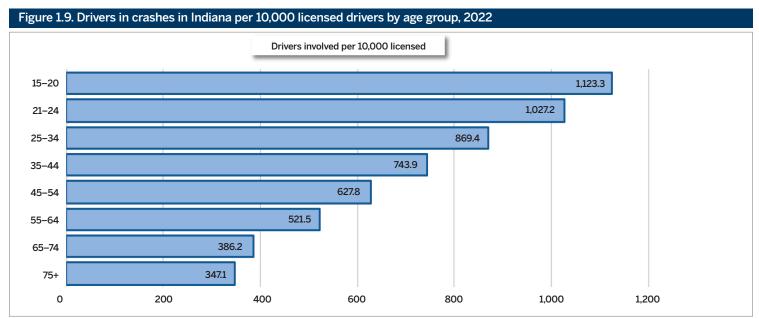


Sources: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023; and Indiana Bureau of Motor Vehicles, Licensed drivers, downloaded March 22, 2022.

Notes

1) Young drivers include drivers ages 15-20.

2) Non-motorist vehicle types—pedestrians, pedalcyclists, and animal-drawn vehicles—are excluded.



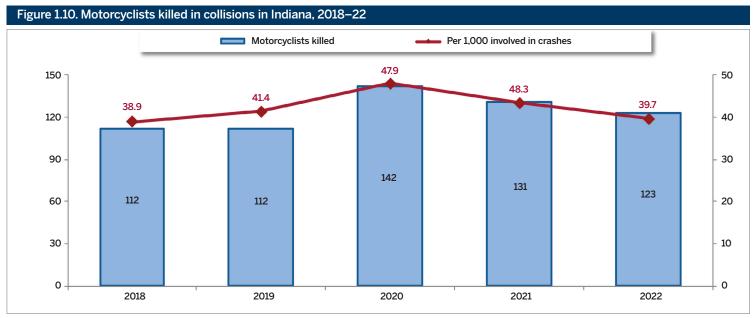
Sources: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023; and Indiana Bureau of Motor Vehicles, Licensed drivers, downloaded March 22, 2023.

Note: Excludes drivers with younger than 15 and older than 109 years and cases of unknown or invalid age.

## **GOAL: Reduce motorcyclist fatalities and** unhelmeted fatalities

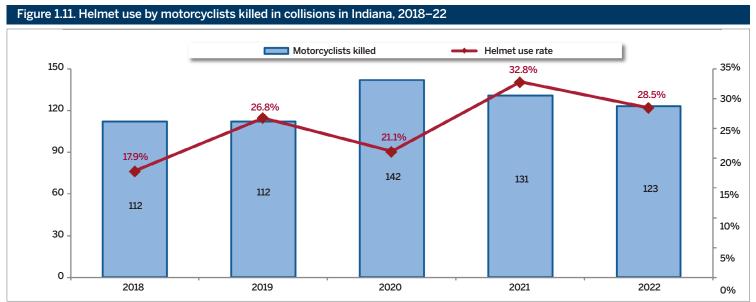
The number of motorcyclist fatalities in Indiana continued to decline from the five-year high of 142 in 2020 to 123 in 2022 (Figure 1.10). The fatality rate per 1,000 motorcyclists involved in collisions also declined steadily since 2020, from 47.9 in 2020 to 43.3 in 2021 to 39.7 in 2022.

In Indiana, only operators and passengers younger than 18 and operators with a motorcycle learner's permit are required to wear a helmet. In 2022, 32% of motorcyclists involved in collisions were wearing helmets (not shown). Among motorcyclists killed in crashes in 2022, 29% were wearing helmets (Figure 1.11).



Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

Note: Motorcyclists include operators and passengers of motorcycles, Class A and Class B motor-driven cycles, mopeds, and motorized bicycles.



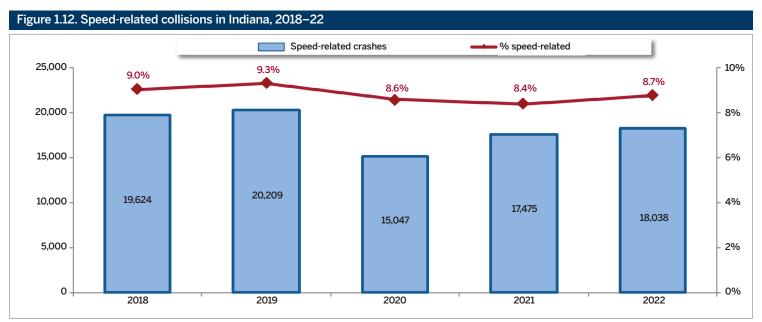
Source: Analysis provided by the Indiana University Public Policy Institute using data from the Indiana State Police, Automated Reporting Information Exchange System (ARIES), as of January 25, 2023.

- Motorcyclists include operators and passengers of motorcycles, Class A and Class B motor-driven cycles, mopeds, and motorized bicycles.
- Helmet, no helmet and null codes were included in the denominator used to calculate helmet use.

## **GOAL: Reduce drivers speeding in crashes**

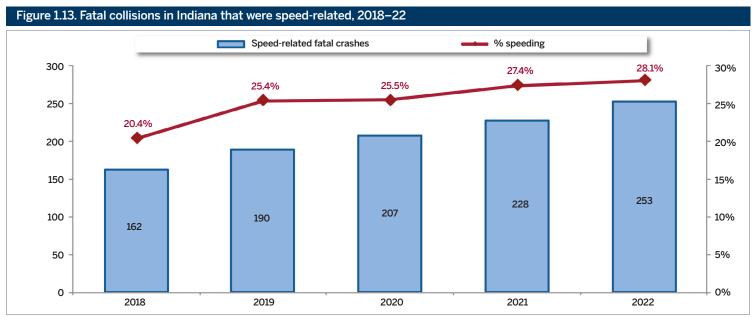
In 2022, the number of Indiana collisions that involved a speeding driver increased to 18,098 from 17,475 in 2021 (Figure 1.12). The number of fatal collisions that involved a speeding driver increased from 228 in

2021 to 253 in 2022—marking a five-year high. Among fatal collisions in 2022, 28% involved a speeding driver, while only 9% of all collisions involved speeding (Figures 1.12 and 1.13).



Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

Note: A collision is identified as speed-related if the crash report lists unsafe speed or speed too fast for weather conditions as the primary or contributing factor of the collision, or if a vehicle driver is issued a speeding citation.



Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

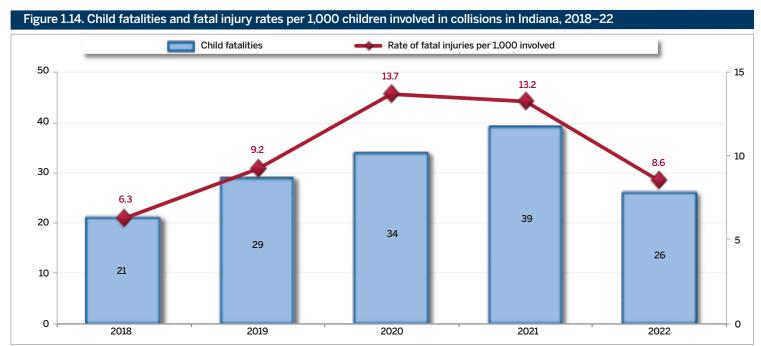
Note: A collision is identified as speed-related if the crash report lists unsafe speed or speed too fast for weather conditions as the primary or contributing factor of the collision, or if a vehicle driver is issued a speeding citation.

## GOAL: Reduce fatalities and serious injuries among children

The number of children killed in crashes decreased from 39 in 2021 to 26 in 2022 (Figure 1.14). The rate of fatal injuries per 1,000 children involved in collisions also declined between 2021 and 2022, from 13.2 to 8.6.

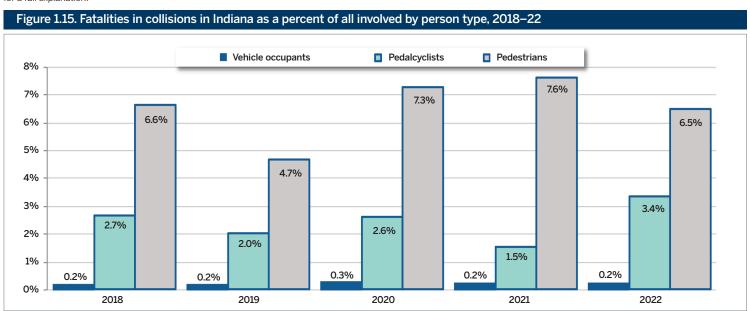
## **GOAL: Reduce fatalities among non-motorists**

In 2022, non-motorists—pedestrians and pedalcyclists—represented less than 1% of people involved in traffic collisions. However, they made up 14% of Indiana's traffic fatalities (not shown). The percentage of pedestrians killed in Indiana crashes decreased from 7.6% in 2021 to 6.5% in 2022 (Figure 1.15). The percentage of pedalcyclists who died in crashes more than doubled, however, from 1.5% in 2021 to 3.4% in 2022.



Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

Note: Includes all individuals ages 0–14 identified as injured occupants, pedestrians, and pedalcyclists as well as drivers and animal-drawn vehicle operators ages 8–14. See Glossary for a full explanation.



Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

#### Notes:

- Animal-drawn vehicle operators are excluded.
- Yehicle occupants include drivers and passengers.



# COUNTY COMPARISONS

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## **COUNTY COMPARISONS BY SUBJECT AREA, 2022**

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 any 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 areas throughout the state.

The following tables and color-scale maps show various collision and injury measures in Indiana counties in 2022. The color-scale maps are grouped by quartiles. Totals for collisions and injuries reported in this chapter include only those records for which a county location was identified.

## **Collision severity and injuries**

In 2022, 206,923 collisions occurred in Indiana counties, 900 of which were fatal (Table 2.1). The average number of collisions per county was 2,249 collisions that same year, with an average of 10 fatal crashes per county. Marion County ranked highest for the total number of collisions at 36,489, and Martin and Union counties ranked highest for the percentage of all collisions that were fatal at 2.4%. The mean county rate of collisions per 100 million vehicle miles traveled (VMT) was 221, and the median rate was 224 (Map 2.1). Ohio, Tippecanoe, and Brown counties had the highest rates of collisions per 100 million VMT.

There were 363,715 individuals involved in collisions in Indiana counties in 2022 (Table 2.2). Across all counties, an average of 3,953 people per county were involved in crashes. Marion County had the largest number of individuals involved at 65,616 and the largest number of traffic fatalities at 145. The mean county traffic fatality rate per 100,000 population was 18.0 and the median rate was 15.8 (Map 2.2). Carroll County had the highest rate at 43.8 per 100,000 population, and Ohio County had the lowest rate at 0.0 per 100,000 population.

## Speed-related collisions

Speed-related collisions accounted for 9% of all collisions and 28% of all fatal collisions across counties in 2022 (Table 2.3). The average number of speed-related collisions per county was 197. LaGrange, Huntington, and Tippecanoe counties had the highest percentages of speed-related collisions, at 16%, 15%, and 14%, respectively. Jay County had the lowest at 2%. The county mean and median percentage of speed-related collisions was 9% and 8%, respectively. Many counties with the highest percentages of speed-related collisions were located in the northern half of the state (Map 2.3).

## **Alcohol-impaired collisions**

Collisions involving an alcohol-impaired driver accounted for 2% of all collisions in counties in 2022, and 8% of fatal collisions (Table 2.4). The average number of alcohol-impaired collisions per county was 36, and the average number of fatal alcohol-impaired collisions per county was 1.

The mean rate of alcohol-impaired drivers in county collisions per 10,000 licensed drivers was 7.1. Wayne County at 15.2 per 10,000 licensed drivers and La Porte County at 14.8 per 10,000 had the highest rates of alcohol-impaired drivers in collisions. Martin County at 1.3 per 10,000 licensed drivers and Fountain County at 1.6 per 10,000 counties had the lowest rates of alcohol-impaired drivers in collisions (Map 2.4).

## **Deer collisions**

Nearly 17,000 collisions in 2022 in counties involved deer. Counties with the highest percentage of deer-involved collisions were in predominantly rural counties outside of central Indiana (Map 2.5). The mean percentage of deer-related collisions was 18%. Pulaski County and Warren County had the highest percentages of deer-involved collisions at 55% and 45%, respectively. Two urban counties—Marion County and Lake County—had the lowest percentages at 0% and 2%, respectively.

## **Restraint use**

In 2022, more than half of occupants killed in counties in passenger vehicles—passenger cars, pickup trucks, sport utility vehicles, and vans—were unrestrained. Only one quarter of individuals suffering incapacitating injuries were unrestrained (Table 2.5). The median county rate of unrestrained passenger vehicle occupants injured in collisions was 25% (Map 2.6). The mean county rate was 27%. Fountain, Ohio, and Clay counties had the highest rates of unrestrained occupants injured in collisions, each with more than 50%.

## Children

In 2022, 2,902 children ages 0–14 were injured in crashes in Indiana counties (Map 2.7). The mean and median county rates of child injuries were both 2.1 per 1,000 involved. Cass, Rush, and Pulaski counties had the highest child injury rates per 1,000 involved in collisions.

## Young drivers involved in collisions

In 2022, 39,028 young drivers ages 15 to 20 were involved in collisions in counties, accounting for 11% of all drivers involved. Of those, 48 suffered fatal injuries (Table 2.6). Pike County had the highest percentage of young drivers involved in collisions at 17%. The mean county rate of young driver involvement in collisions was 95.9 per 1,000 licensed young drivers (Map 2.8). The median county rate was 92.2. Counties with large universities—Monroe, Tippecanoe, Delaware, Marion, Vanderburgh, and Vigo counties—had some of the highest rates of young driver involvement in collisions, continuing a pattern observed year to year during the past decade.

### Motorcyclists involved in collisions

In 2022, there were 3,102 motorcyclists involved in collisions in counties, 123 of whom were killed (Table 2.7). The mean and median rates of motorcyclists involved in collisions per 1,000 individuals involved in all collisions were 13.3 and 11.9, respectively. The highest county rates of motorcyclist involvement per 1,000 individuals in collisions occurred in southern Indiana in Ohio County with 50.5 and Brown County with 42.2 (Map 2.9).

## Hit-and-run collisions

Drivers in collisions resulting in injury or death are expected to remain or immediately return to the scene of the collision to provide proper identification (IC 9-26-1-1), otherwise the crash is considered a hit-and-run. In 2022, hit-and-run collisions accounted for 14% of all collisions in Indiana counties—totaling 28,722 of the 206,923 collisions statewide. The mean county percentage of hit-and-run collisions was 8%, and the median county percentage was 6% (Map 2.10). The highest county rates for hit-and-run collisions were in Marion, St. Joseph, Lake, and Allen counties with hit-and-run collisions being at least 20% in each county. The lowest county rate was in Warren County at 1%.

## Work zone collisions

There were 6,347 work zone collisions in Indiana counties in 2022 (Map 2.11). The mean county rate of work zone collisions per 1,000 total collisions was 19.3, and the median rate was 13.5. Given that work zone locations are constantly changing throughout the state, counties with the highest work zone collision rates tend to vary from year to year. In 2022, Boone, Tipton, Hancock, Morgan, Lake, and Bartholomew counties had the highest rates of work zone collisions per 1,000 collisions, with each rate being 56 or greater.

## **County ranks**

Table 2.8 shows Indiana counties ranked by six collision metrics:

- Fatalities per 100,000 population
- Speed-related collisions as a percent of total collisions
- Alcohol-impaired collisions as a percent of total collisions
- Motorcyclists per 1,000 individuals involved in collisions
- Unrestrained passenger vehicle injuries as a percent of total injuries
- Young drivers in collisions per 1,000 licensed drivers

An average score for these six metrics also was calculated to provide a summary of a county's overall traffic safety environment. However, several factors that may influence collision rankings—such as different population compositions, road types, driving conditions, crash reporting practices, etc.—are not accounted for here. Readers should be mindful of these differences when viewing county ranks.

Table 2.1 Collisions in Indiana by severity and county, 2022

	Total	collisions		Fatal		No	n-fatal	Property	damage only
	Count	County rank	Count	As % county total	County rank (on %)	Count	As % county total	Count	As % county total
All counties	206,923	N/A	900	0.4%	N/A	29,218	14.1%	176,805	85.4%
Mean	2,249	N/A	10	0.7%	N/A	318	13.9%	1,922	85.5%
Median	952	N/A	7	0.5%	N/A	128	13.6%	798	86.0%
Minimum	84	N/A	0	0.0%	N/A	14	8.6%	67	72.6%
Maximum	36,489	N/A	140	2.4%	N/A	5,298	25.8%	31,051	91.2%
Adams	787	53	3	0.4%	65	100	12.7%	684	86.9%
Allen	13,053	3	44	0.3%	72	2,066	15.8%	10,943	83.8%
Bartholomew	1,719	26	8	0.5%	53	411	23.9%	1,300	75.6%
Benton	124	91	2	1.6%	5	20	16.1%	102	82.3%
Blackford	291	84	2	0.7%	34	38	13.1%	251	86.3%
Boone	2,292	20	8	0.3%	69	304	13.3%	1,980	86.4%
Brown	495	71	1	0.2%	89	76	15.4%	418	84.4%
Carroll	510	68	8	1.6%	7	54	10.6%	448	87.8%
Cass	1,104	41	9	0.8%	26	170	15.4%	925	83.8%
Clark	3,981	11	13	0.3%	77	578	14.5%	3,390	85.2%
Clay	660	59	3	0.5%	55	86	13.0%	571	86.5%
Clinton	1,033	44	5	0.5%	50	126	12.2%	902	87.3%
Crawford	312	83	3	1.0%	16	46	14.7%	263	84.3%
Daviess	368	80	6	1.6%	4	95	25.8%	267	72.6%
Dearborn	1,482	31	5	0.3%	71	171	11.5%	1,306	88.1%
Decatur	749	54	5	0.7%	35	108	14.4%	636	84.9%
DeKalb	1,287	33	4	0.3%	78	152	11.8%	1,131	87.9%
Delaware	3,594	15	12	0.3%	73	542	15.1%	3,040	84.6%
Dubois	1,261	35	6	0.5%	52	139	11.0%	1,116	88.5%
Elkhart	7,204	6	42	0.6%	41	889	12.3%	6,273	87.1%
Fayette	435	74	3	0.7%	33	60	13.8%	372	85.5%
Floyd	2,445	19	11	0.4%	57	332	13.6%	2,102	86.0%
Fountain	363	81	4	1.1%	13	46	12.7%	313	86.2%
Franklin	569	63	3	0.5%	47	63	11.1%	503	88.4%
Fulton	605	62	3	0.5%	48	66	10.9%	536	88.6%
Gibson	957	46	6	0.6%	39	169	17.7%	782	81.7%
Grant	2,185	22	10	0.5%	54	258	11.8%	1,917	87.7%
Greene	938	48	8	0.9%	22	123	13.1%	807	86.0%
Hamilton	7,683	5	16	0.2%	88	897	11.7%	6,770	88.1%
Hancock	1,896	24	12	0.6%	38	277	14.6%	1,607	84.8%
Harrison	1,199	40	17	1.4%	9	175	14.6%	1,007	84.0%
Hendricks	4,867	10	17	0.3%	68	596	12.2%	4,254	87.4%
Henry	946	47	8	0.8%	23	173	18.3%	765	80.9%
Howard	2,098	23	7	0.3%	75	287	13.7%	1,804	86.0%
Huntington	1,213	38	9	0.7%	30	173	14.3%	1,031	85.0%
Jackson	1,861	25	10	0.5%	45	206	11.1%	1,645	88.4%
			7	0.5%				1,043	85.4%
Jasper	1,278 550	34 65	5	0.5%	44 19	179 75	14.0% 13.6%	470	85.5%
Jay	740	55							
Jefferson	685		2 8	0.3%	82 12	100	13.5%	638 593	86.2% 86.6%
Jennings		58		1.2%	12	84	12.3%		86.6%
Johnson	3,805 1,216	13 37	15 4	0.4%	61 76	533 143	14.0%	3,257	85.6%
Knox				0.3%			11.8%	1,069	87.9%
Kosciusko	2,612	18	10	0.4%	64	375	14.4%	2,227	85.3%
LaGrange	1,060	43	10	0.9%	18	107	10.1%	943	89.0%
Lake	17,803	2	53	0.3%	79	2,459	13.8%	15,291	85.9%
La Porte	3,342	16	20	0.6%	40	493	14.8%	2,829	84.6%
Lawrence	1,396	32	3	0.2%	87	161	11.5%	1,232	88.3%
Madison	3,894	12	13	0.3%	74	478	12.3%	3,403	87.4%

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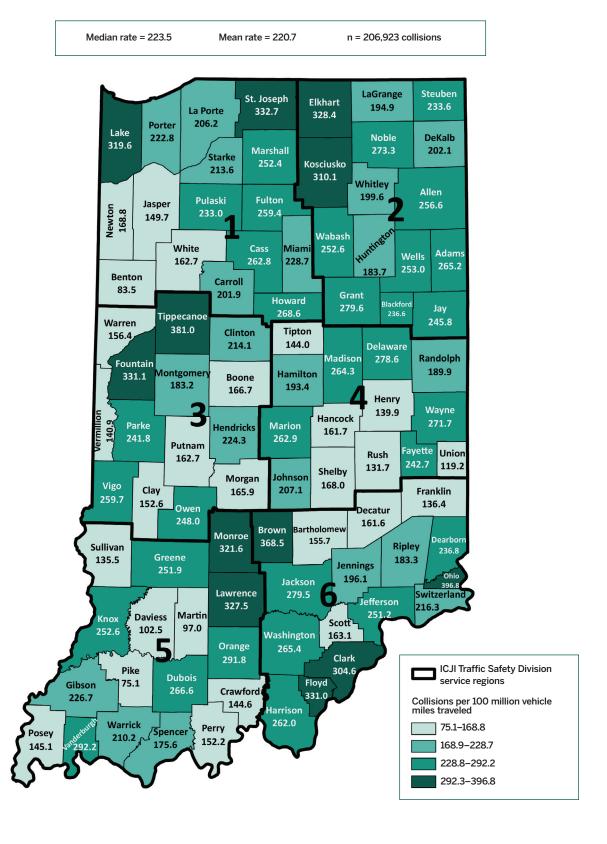
 Table 2.1 Collisions in Indiana by severity and county, 2022 (continued)

	Total	collisions		Fatal		No	n-fatal	Property	damage only
	Count	County rank	Count	As % county total	County rank (on %)	Count	As % county total	Count	As % county total
Marion	36,489	1	140	0.4%	63	5,298	14.5%	31,051	85.1%
Marshall	1,558	30	10	0.6%	36	166	10.7%	1,382	88.7%
Martin	125	90	3	2.4%	1	14	11.2%	108	86.4%
Miami	1,067	42	3	0.3%	80	133	12.5%	931	87.3%
Monroe	3,642	14	13	0.4%	67	598	16.4%	3,031	83.2%
Montgomery	918	49	7	0.8%	29	124	13.5%	787	85.7%
Morgan	1,632	28	8	0.5%	49	250	15.3%	1,374	84.2%
Newton	403	77	4	1.0%	15	42	10.4%	357	88.6%
Noble	1,208	39	7	0.6%	42	162	13.4%	1,039	86.0%
Ohio	168	88	0	0.0%	92	18	10.7%	150	89.3%
Orange	508	69	2	0.4%	62	55	10.8%	451	88.8%
Owen	506	70	2	0.4%	60	83	16.4%	421	83.2%
Parke	443	73	1	0.2%	86	46	10.4%	396	89.4%
Perry	375	78	2	0.5%	46	61	16.3%	312	83.2%
Pike	137	89	2	1.5%	8	22	16.1%	113	82.5%
Porter	4,889	9	22	0.4%	56	665	13.6%	4,202	85.9%
Posey	538	66	1	0.2%	90	83	15.4%	454	84.4%
Pulaski	427	75	3	0.7%	31	37	8.7%	387	90.6%
Putnam	977	45	8	0.8%	25	157	16.1%	812	83.1%
Randolph	495	71	4	0.8%	27	65	13.1%	426	86.1%
Ripley	655	60	8	1.2%	11	88	13.4%	559	85.3%
Rush	289	85	6	2.1%	3	54	18.7%	229	79.2%
St. Joseph	8,709	4	23	0.3%	83	1,200	13.8%	7,486	86.0%
Scott	568	64	9	1.6%	6	123	21.7%	436	76.8%
Shelby	1,257	36	11	0.9%	21	233	18.5%	1,013	80.6%
Spencer	630	61	4	0.6%	37	58	9.2%	568	90.2%
Starke	534	67	3	0.6%	43	63	11.8%	468	87.6%
Steuben	1,668	27	4	0.2%	85	149	8.9%	1,515	90.8%
Sullivan	370	79	4	1.1%	14	48	13.0%	318	85.9%
Switzerland	210	87	1	0.5%	51	33	15.7%	176	83.8%
Tippecanoe	6,644	7	12	0.2%	91	900	13.5%	5,732	86.3%
Tipton	419	76	4	1.0%	17	78	18.6%	337	80.4%
Union	84	92	2	2.4%	2	15	17.9%	67	79.8%
Vanderburgh	5,784	8	14	0.2%	84	1,189	20.6%	4,581	79.2%
Vermillion	360	82	3	0.8%	24	42	11.7%	315	87.5%
Vigo	3,157	17	22	0.7%	32	558	17.7%	2,577	81.6%
Wabash	863	52	3	0.3%	70	100	11.6%	760	88.1%
Warren	238	86	1	0.4%	58	33	13.9%	204	85.7%
Warrick	1,588	29	6	0.4%	66	212	13.4%	1,370	86.3%
Washington	714	57	9	1.3%	10	97	13.6%	608	85.2%
Wayne	2,198	21	9	0.4%	59	305	13.9%	1,884	85.7%
Wells	725	56	2	0.3%	81	62	8.6%	661	91.2%
White	905	50	7	0.8%	28	110	12.2%	788	87.1%
Whitley	902	51	8	0.8%	20	130	14.4%	764	84.7%
Unknown	13	N/A	0	0.9% N/A	N/A	0	14.4% N/A	13	04.7% N/A
UTIKTIOWIT	15	IN/A		IN/A	IN/A		IN/A	15	IN/A

Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

Note: Non-fatal injury collisions include collisions reported with incapacitating, non-incapacitating, possible, refused [treatment], not reported, and unknown injuries.

Map 2.1 Collisions in Indiana per 100 million vehicle miles traveled by county and ICJI Traffic Safety Division service region, 2022



Sources: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023; and Indiana Department of Transportation, 2021 county-level VMT.

Table 2.2 Individuals in collisions in Indiana by injury status and county, 2022

	Total individ	duals involved		Fatal		Incapa	acitating	Non-inc	apacitating	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	363,715	N/A	964	0.3%	N/A	11,449	3.1%	35,077	9.6%	316,225	86.9%
Mean	3,953	N/A	10	0.5%	N/A	124	3.3%	381	11.2%	3,437	85.0%
Median	1,531	N/A	7	0.4%	N/A	46	3.0%	178	10.8%	1,265	85.7%
Minimum	129	N/A	0	0.0%	N/A	5	0.6%	13	4.9%	101	75.2%
Maximum	65,616	N/A	145	1.8%	N/A	3,152	10.1%	4,747	20.8%	57,572	90.5%
Adams	1,290	52	3	0.2%	66	46	3.6%	136	10.5%	1,105	85.7%
Allen	24,810	3	45	0.2%	81	550	2.2%	2,680	10.8%	21,535	86.8%
Bartholomew	3,065 202	26 89	8	0.3% 1.5%	58 4	200	6.5% 2.5%	420 42	13.7% 20.8%	2,437 152	79.5% 75.2%
Benton Blackford	440	84	3	0.7%	19	10	2.3%	70	15.9%	357	81.1%
Boone	3,965	19	8	0.7%	74	98	2.5%	379	9.6%	3,480	87.8%
Brown	687	74	1	0.2%	87	21	3.1%	100	14.6%	565	82.2%
Carroll	689	74	9	1.3%	5	16	2.3%	74	10.7%	590	85.6%
Cass	1,808	41	10	0.6%	30	63	3.5%	239	13.2%	1,496	82.7%
Clark	7,291	11	15	0.2%	71	169	2.3%	707	9.7%	6,400	87.8%
Clay	1,071	58	5	0.5%	36	47	4.4%	88	8.2%	931	86.9%
Clinton	1,659	42	6	0.4%	46	28	1.7%	188	11.3%	1,437	86.6%
Crawford	435	85	3	0.7%	18	19	4.4%	59	13.6%	354	81.4%
Daviess	645	75	6	0.9%	8	48	7.4%	104	16.1%	487	75.5%
Dearborn	2,467	29	5	0.2%	73	75	3.0%	212	8.6%	2,175	88.2%
Decatur	1,253	54	5	0.4%	40	37	3.0%	137	10.9%	1,074	85.7%
DeKalb	1,943	37	4	0.2%	70	64	3.3%	189	9.7%	1,686	86.8%
Delaware	6,245	15	12	0.2%	77	197	3.2%	673	10.8%	5,363	85.9%
Dubois	2,104	33	7	0.3%	52	30	1.4%	215	10.2%	1,852	88.0%
Elkhart	13,441	6	48	0.4%	47	335	2.5%	1,117	8.3%	11,941	88.8%
Fayette	740	70	3	0.4%	39	18	2.4%	86	11.6%	633	85.5%
Floyd	4,471	18	11	0.2%	61	108	2.4%	380	8.5%	3,972	88.8%
Fountain	523	82	4	0.8%	14	19	3.6%	52	9.9%	448	85.7%
Franklin	824	65	3	0.4%	45	31	3.8%	75	9.1%	715	86.8%
Fulton	900	62	3	0.3%	51	23	2.6%	95	10.6%	779	86.6%
Gibson	1,547	46	6	0.4%	41	82	5.3%	199	12.9%	1,260	81.4%
Grant	3,760	23	11	0.3%	54	65	1.7%	371	9.9%	3,313	88.1%
Greene	1,344	51	8	0.6%	23	56	4.2%	146	10.9%	1,134	84.4%
Hamilton	13,699	5	17	0.1%	90	396	2.9%	1,196	8.7%	12,090	88.3%
Hancock	3,530	24	13	0.4%	44	106	3.0%	370	10.5%	3,041	86.1%
Harrison	1,928	38	17	0.9%	10	73	3.8%	224	11.6%	1,614	83.7%
Hendricks	9,067	9	19	0.2%	69	232	2.6%	677	7.5%	8,139	89.8%
Henry	1,590	45	9	0.6%	29	55	3.5%	253	15.9%	1,273	80.1%
Howard	3,821	22	7	0.2%	79	102	2.7%	373	9.8%	3,339	87.4%
Huntington	1,897	39	11	0.6%	26	54	2.8%	216	11.4%	1,616	85.2%
Jackson	3,152	25	10	0.3%	53	66	2.1%	311	9.9%	2,765	87.7%
Jasper	2,010	36	7	0.3%	48	54	2.7%	234	11.6%	1,715	85.3%
Jay	812	66	7	0.9%	11	42	5.2%	102	12.6%	661	81.4%
Jefferson	1,259	53	2	0.2%	86	23	1.8%	143	11.4%	1,091	86.7%
Jennings	1,109	57	9	0.8%	12	27	2.4%	120	10.8%	953	85.9%
Johnson	7,113	12	15	0.2%	68	280	3.9%	541	7.6%	6,277	88.2%
Knox	2,017	35	4	0.2%	76	54	2.7%	177	8.8%	1,782	88.3%
Kosciusko	3,829	21	10	0.3%	57	39	1.0%	507	13.2%	3,273	85.5%
LaGrange	1,605	44	10	0.6%	22	105	6.5%	78	4.9%	1,412	88.0%
Lake	34,169	2	61	0.2%	82	800	2.3%	3,037	8.9%	30,271	88.6%
La Porte	5,831	16	22	0.4%	43	134	2.3%	704	12.1%	4,971	85.3%
Lawrence	2,250	31	3	0.1%	89	37	1.6%	247	11.0%	1,963	87.2%
Madison	7,005	13	14	0.2%	75	196	2.8%	656	9.4%	6,139	87.6% ued on next page

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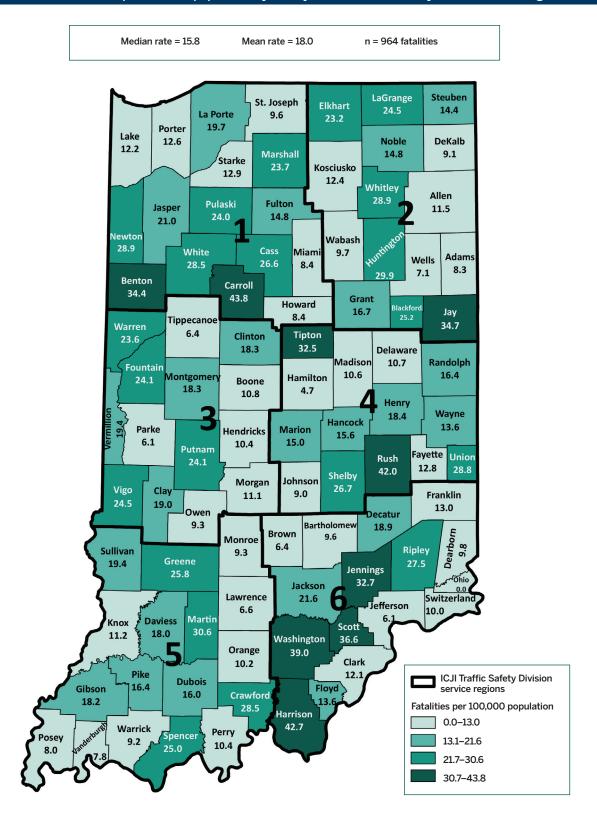
Table 2.2 Individuals in collisions in Indiana by injury status and county, 2022 (continued)

	Total indivi	duals involved		Fatal		Incap	acitating	Non-ind	capacitating	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	65,616	1	145	0.2%	67	3,152	4.8%	4,747	7.2%	57,572	87.7%
Marshall	2,240	32	11	0.5%	34	89	4.0%	184	8.2%	1,956	87.3%
Martin	171	91	3	1.8%	1	5	2.9%	16	9.4%	147	86.0%
Miami	1,649	43	3	0.2%	80	50	3.0%	178	10.8%	1,418	86.0%
Monroe	6,820	14	13	0.2%	78	116	1.7%	841	12.3%	5,850	85.8%
Montgomery	1,477	48	7	0.5%	35	26	1.8%	179	12.1%	1,265	85.6%
Morgan	2,795	27	8	0.3%	55	98	3.5%	339	12.1%	2,350	84.1%
Newton	553	80	4	0.7%	15	18	3.3%	65	11.8%	466	84.3%
Noble	1,845	40	7	0.4%	42	67	3.6%	214	11.6%	1,557	84.4%
Ohio	218	88	0	0.0%	92	10	4.6%	33	15.1%	175	80.3%
Orange	748	69	2	0.3%	56	30	4.0%	73	9.8%	643	86.0%
Owen	772	67	2	0.3%	59	42	5.4%	101	13.1%	627	81.2%
Parke	590	76	1	0.2%	84	39	6.6%	33	5.6%	517	87.6%
Perry	578	78	2	0.3%	49	21	3.6%	69	11.9%	486	84.1%
Pike	202	89	2	1.0%	7	8	4.0%	34	16.8%	158	78.2%
Porter	8,601	10	22	0.3%	60	198	2.3%	883	10.3%	7,498	87.2%
Posey	832	64	2	0.2%	64	29	3.5%	107	12.9%	694	83.4%
Pulaski	579	77	3	0.5%	32	19	3.3%	59	10.2%	498	86.0%
Putnam	1,515	47	9	0.6%	24	51	3.4%	191	12.6%	1,264	83.4%
Randolph	770	68	4	0.5%	31	24	3.1%	97	12.6%	645	83.8%
Ripley	994	60	8	0.8%	13	28	2.8%	135	13.6%	823	82.8%
Rush	450	83	7	1.6%	2	26	5.8%	69	15.3%	348	77.3%
St. Joseph	16,222	4	26	0.2%	85	380	2.3%	1,553	9.6%	14,263	87.9%
Scott	971	61	9	0.9%	9	36	3.7%	173	17.8%	753	77.5%
Shelby	2,033	34	12	0.6%	25	100	4.9%	244	12.0%	1,677	82.5%
Spencer	876	63	5	0.6%	27	32	3.7%	89	10.2%	750	85.6%
Starke	730	71	3	0.4%	38	22	3.0%	77	10.5%	628	86.0%
Steuben	2,461	30	5	0.2%	72	40	1.6%	188	7.6%	2,228	90.5%
Sullivan	562	79	4	0.7%	16	13	2.3%	67	11.9%	478	85.1%
Switzerland	297	87	1	0.3%	50	12	4.0%	41	13.8%	243	81.8%
Tippecanoe	11,650	7	12	0.1%	91	90	0.8%	1,256	10.8%	10,292	88.3%
Tipton	710	72	5	0.7%	17	15	2.1%	106	14.9%	584	82.3%
Union	129	92	2	1.6%	3	13	10.1%	13	10.1%	101	78.3%
Vanderburgh	10,423	8	14	0.1%	88	759	7.3%	1,080	10.4%	8,570	82.2%
Vermillion	527	81	3	0.6%	28	31	5.9%	49	9.3%	444	84.3%
Vigo	5,826	17	26	0.4%	37	158	2.7%	695	11.9%	4,947	84.9%
Wabash	1,234	55 86	3	0.2%	62	47	3.8%	98	7.9%	1,086	88.0%
Warren	316	86	2	0.6%	21	8	2.5%	49	15.5%	257	81.3%
Warrick	2,484	28	6	0.2%	63	15	0.6%	290	11.7%	2,173	87.5%
Washington	1,052	59	11	1.0%	6	33	3.1%	135	12.8%	873	83.0%
Wayne	3,859	20	9	0.2%	65	61	1.6%	411	10.7%	3,378	87.5%
Wells	1,173	56 50	2	0.2%	83	13	1.1%	108	9.2%	1,050	89.5%
White	1,384	50	7	0.5%	33	46	3.3%	136	9.8%	1,195	86.3%
Whitley	1,469	49	10	0.7%	20	44	3.0%	173	11.8%	1,242	84.5%
Unknown	19	N/A	0	N/A	N/A	0	N/A	0	N/A	19	N/A

Source: Analysis provided by the Indiana University Public Policy Institute using data from the Indiana State Police, Automated Reporting Information Exchange System (ARIES), as of January 25. 2023.

Note: Non-incapacitating injuries include those reported as non-incapacitating, possible, refused [treatment], not reported, and unknown injuries.

Map 2.2. Traffic fatalities in Indiana per 100,000 population by county and ICJI Traffic Safety Division service region, 2022



Sources: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023; and U.S. Census Bureau, 2022 county population estimates.

Table 2.3 Speed-related collisions in Indiana by severity and county, 2022

		All collisions			Fatal	No	n-fatal	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	18,097	8.7%	N/A	253	28.1%	3,690	12.6%	14,154	8.0%
Mean	197	8.5%	N/A	3	26.7%	40	14.0%	154	7.5%
Median	91	7.9%	N/A	1	25.0%	20	14.1%	70	6.9%
Minimum	5	2.2%	N/A	0	0.0%	2	3.8%	1	1.3%
Maximum	2,705	15.7%	N/A	43	100.0%	607	25.0%	2,055	15.2%
Adams	61	7.8%	48	0	0.0%	11	11.0%	50	7.3%
Allen	1,365	10.5%	24	16	36.4%	289	14.0%	1,060	9.7%
Bartholomew	145 7	8.4%	45 75	1 1	12.5%	40	9.7%	104	8.0%
Benton Blackford	16	5.6% 5.5%	75 77	1	50.0% 50.0%	3 6	15.0% 15.8%	3 9	2.9% 3.6%
Boone	143	6.2%	69	1	12.5%	37	12.2%	105	5.3%
Brown	50	10.1%	28	0	0.0%	19	25.0%	31	7.4%
Carroll	35	6.9%	62	2	25.0%	9	16.7%	24	5.4%
Cass	114	10.3%	26	1	11.1%	24	14.1%	89	9.6%
Clark	261	6.6%	65	7	53.8%	62	10.7%	192	5.7%
Clay	27	4.1%	88	1	33.3%	9	10.5%	17	3.0%
Clinton	92	8.9%	40	2	40.0%	12	9.5%	78	8.6%
Crawford	29	9.3%	34	1	33.3%	9	19.6%	19	7.2%
Daviess	26	7.1%	58	1	16.7%	9	9.5%	16	6.0%
Dearborn	108	7.3%	55	1	20.0%	21	12.3%	86	6.6%
Decatur	95	12.7%	9	0	0.0%	17	15.7%	78	12.3%
DeKalb	150	11.7%	17	1	25.0%	31	20.4%	118	10.4%
Delaware	234	6.5%	66	2	16.7%	49	9.0%	183	6.0%
Dubois	98	7.8%	47	0	0.0%	25	18.0%	73	6.5%
Elkhart	816	11.3%	19	15	35.7%	109	12.3%	692	11.0%
Fayette	21	4.8%	85	0	0.0%	3	5.0%	18	4.8%
Floyd	117 31	4.8% 8.5%	86 43	2 0	18.2% 0.0%	16 9	4.8%	99 22	4.7% 7.0%
Fountain Franklin	59	10.4%	45 25	1	33.3%	10	19.6% 15.9%	48	9.5%
Fulton	67	11.1%	22	0	0.0%	10	15.2%	57	10.6%
Gibson	90	9.4%	33	1	16.7%	27	16.0%	62	7.9%
Grant	242	11.1%	21	5	50.0%	41	15.9%	196	10.2%
Greene	75	8.0%	46	0	0.0%	20	16.3%	55	6.8%
Hamilton	408	5.3%	81	4	25.0%	69	7.7%	335	4.9%
Hancock	117	6.2%	72	2	16.7%	22	7.9%	93	5.8%
Harrison	89	7.4%	53	2	11.8%	21	12.0%	66	6.6%
Hendricks	272	5.6%	76	3	17.6%	47	7.9%	222	5.2%
Henry	80	8.5%	44	2	25.0%	24	13.9%	54	7.1%
Howard	114	5.4%	79	2	28.6%	24	8.4%	88	4.9%
Huntington	178	14.7%	2	3	33.3%	31	17.9%	144	14.0%
Jackson	128	6.9%	61	5	50.0%	27	13.1%	96	5.8%
Jasper	164	12.8%	7	2	28.6%	31	17.3%	131	12.0%
Jay	12	2.2%	92	0	0.0%	6	8.0%	6	1.3%
Jefferson	56	7.6%	51	0	0.0%	16	16.0%	40	6.3%
Jennings	62	9.1%	38	3	37.5%	16	19.0%	43	7.3%
Johnson	196	5.2%	82	3	20.0%	33	6.2%	160	4.9%
Knox Kosciusko	70 164	5.8% 6.3%	74 68	2 2	50.0% 20.0%	22 29	15.4% 7.7%	46 133	4.3% 6.0%
LaGrange	164	15.7%	1	2	20.0%	29	19.6%	143	15.2%
Lake	2,168	12.2%	15	22	41.5%	427	17.4%	1,719	11.2%
La Porte	415	12.4%	10	6	30.0%	83	16.8%	326	11.5%
Lawrence	64	4.6%	87	2	66.7%	13	8.1%	49	4.0%
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Table 2.3 Speed-related collisions in Indiana by severity and county, 2022 (continued)

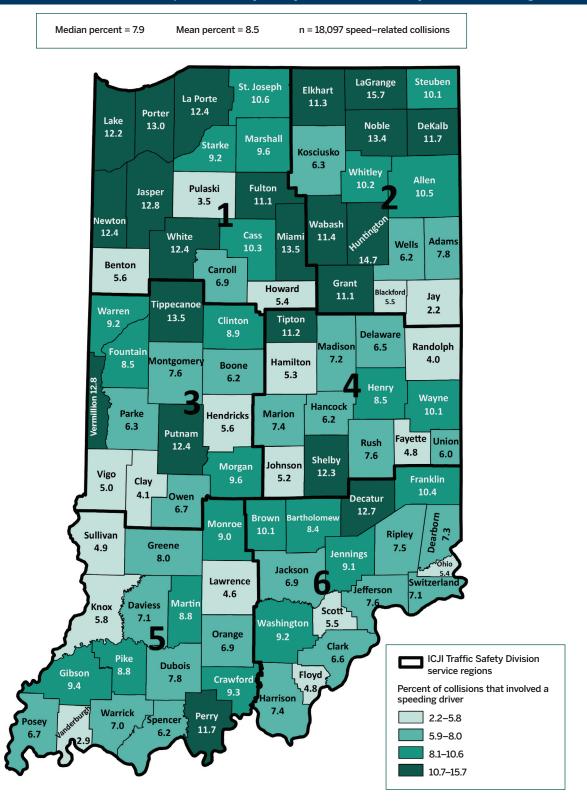
		All collisions			Fatal	No	on-fatal	Property	damage only
	Speed-related collisions	Speed-related as % of total collisions	County rank (on %)	Count	Speed-related as % of total fatal collisions	Count	Speed-related as % of total non-fatal injury collisions	Count	Speed-related as % of total property damage collisions
Marion	2,705	7.4%	54	43	30.7%	607	11.5%	2,055	6.6%
Marshall	150	9.6%	31	3	30.0%	32	19.3%	115	8.3%
Martin	11	8.8%	41	0	0.0%	2	14.3%	9	8.3%
Miami	144	13.5%	4	2	66.7%	30	22.6%	112	12.0%
Monroe	328	9.0%	39	6	46.2%	83	13.9%	239	7.9%
Montgomery	70	7.6%	49	0	0.0%	18	14.5%	52	6.6%
Morgan	157	9.6%	32	2	25.0%	39	15.6%	116	8.4%
Newton	50	12.4%	11	0	0.0%	8	19.0%	42	11.8%
Noble	162	13.4%	5	1	14.3%	29	17.9%	132	12.7%
Ohio	9	5.4%	80	0	N/A	4	22.2%	5	3.3%
Orange	35	6.9%	60	0	0.0%	13	23.6%	22	4.9%
Owen	34	6.7%	63	0	0.0%	11	13.3%	23	5.5%
Parke	28	6.3%	67	1	100.0%	4	8.7%	23	5.8%
Perry	44	11.7%	16	1	50.0%	11	18.0%	32	10.3%
Pike	12	8.8%	42	0	0.0%	3	13.6%	9	8.0%
Porter	636	13.0%	6	10	45.5%	110	16.5%	516	12.3%
Posey	36	6.7%	64	1	100.0%	12	14.5%	23	5.1%
Pulaski	15	3.5%	90	1	33.3%	5	13.5%	9	2.3%
Putnam	121	12.4%	12	3	37.5%	34	21.7%	84	10.3%
Randolph	20	4.0%	89	1	25.0%	3	4.6%	16	3.8%
Ripley	49	7.5%	52	4	50.0%	14	15.9%	31	5.5%
Rush	22	7.5%	50	1	16.7%	3	5.6%	18	7.9%
St. Joseph	922	10.6%	23	10	43.5%	168	14.0%	744	9.9%
Scott	31	5.5%	78	3	33.3%	100	8.1%	18	4.1%
	154	12.3%	14	3	27.3%	38	16.3%	113	11.2%
Shelby	39	6.2%	71	0	0.0%	5	8.6%	34	6.0%
Spencer Starke									
	49	9.2%	37 30	2	66.7% 25.0%	14	22.2%	33	7.1%
Steuben	168	10.1%		1		33 5	22.1%	134	8.8%
Sullivan	18	4.9%	84	0	0.0%		10.4%	13	4.1%
Switzerland	15	7.1%	57	1	100.0%	4	12.1%	10	5.7%
Tippecanoe	897	13.5%	3	2	16.7%	160	17.8%	735	12.8%
Tipton	47	11.2%	20	1	25.0%	6	7.7%	40	11.9%
Union	5	6.0%	73	2	100.0%	2	13.3%	1	1.5%
Vanderburgh	165	2.9%	91	0	0.0%	45	3.8%	120	2.6%
Vermillion	46	12.8%	8	0	0.0%	10	23.8%	36	11.4%
Vigo	159	5.0%	83	6	27.3%	24	4.3%	129	5.0%
Wabash	98	11.4%	18	0	0.0%	14	14.0%	84	11.1%
Warren	22	9.2%	35	0	0.0%	8	24.2%	14	6.9%
Warrick	111	7.0%	59	0	0.0%	29	13.7%	82	6.0%
Washington	66	9.2%	35	1	11.1%	21	21.6%	44	7.2%
Wayne	222	10.1%	29	3	33.3%	45	14.8%	174	9.2%
Wells	45	6.2%	70	1	50.0%	3	4.8%	41	6.2%
White	112	12.4%	13	4	57.1%	20	18.2%	88	11.2%
Whitley	92	10.2%	27	1	12.5%	11	8.5%	80	10.5%
Unknown	1	N/A	N/A	0	N/A	0	N/A	1	N/A

Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25. 2023.

### Notes:

A collision is identified as speed-related if the crash report lists unsafe speed or speed too fast for weather conditions as the primary or contributing factor of the collision, or if a vehicle driver is issued a speeding citation.
 Percent calculations represent the percent of total county collisions in each injury category (presented in Table 2.1) that are speed-related.
 Non-fatal injury collisions include collisions reported with incapacitating, non-incapacitating, possible, refused [treatment], not reported, and unknown injuries.

Map 2.3. Percent of collisions in Indiana that were speed-related by county and ICJI Traffic Safety Division service region, 2022



Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

Table 2.4. Collisions in Indiana involving an alcohol-impaired driver by severity and county, 2022

	All o	collisions		Fatal	N	on-fatal	Propert	y damage only
County	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	3,351	1.6%	70	7.8%	843	2.9%	2,438	1.4%
Mean	36	2.0%	1	5.6%	9	3.8%	27	1.6%
Median	19	1.8%	0	0.0%	5	3.1%	13	1.5%
Minimum	1	0.6%	0	0.0%	0	0.0%	1	0.4%
Maximum	315	8.3%	22	50.0%	110	33.3%	208	5.2%
Adams	17	2.2%	0	0.0%	7	7.0%	10	1.5%
Allen	315	2.4%	13	29.5%	110	5.3%	192	1.8%
Bartholomew	33	1.9%	0	0.0%	12	2.9%	21	1.6%
Benton	5	4.0%	1	50.0%	1	5.0%	3	2.9%
Blackford	4	1.4%	0	0.0%	2	5.3%	2	0.8%
Boone	25	1.1%	0	0.0%	10	3.3%	15	0.8%
Brown	11	2.2%	0	0.0%	3	3.9%	8	1.9%
Carroll	10	2.0%	0	0.0%	5	9.3%	5	1.1%
Cass	22	2.0%	1	11.1%	5	2.9%	16	1.7%
Clark	66	1.7%	0	0.0%	11	1.9%	55	1.6%
Clay	7	1.1%	0	0.0%	0	0.0%	7	1.2%
Clinton	27	2.6%	1	20.0%	4	3.2%	22	2.4%
Crawford	2	0.6%	0	0.0%	1	2.2%	1	0.4%
Daviess	16	4.3%	0	0.0%	7	7.4%	9	3.4%
Dearborn	32	2.2%	0	0.0%	6	3.5%	26	2.0%
Decatur	15	2.0%	0	0.0%	5	4.6%	10	1.6%
DeKalb	33	2.6%	1	25.0%	9	5.9%	23	2.0%
Delaware	49	1.4%	1	8.3%	15	2.8%	33	1.1%
Dubois	18	1.4%	0	0.0%	4	2.9%	14	1.3%
Elkhart	160	2.2%	5	11.9%	24	2.7%	131	2.1%
Fayette	13	3.0%	0	0.0%	1	1.7%	12	3.2%
Floyd	37	1.5%	0	0.0%	9	2.7%	28	1.3%
•	2	0.6%	0	0.0%	0	0.0%	20	0.6%
Fountain Franklin	9	1.6%	0	0.0%	1	1.6%	8	1.6%
	9		0		3			
Fulton	15	1.5% 1.6%	0	0.0% 0.0%	8	4.5% 4.7%	6 7	1.1% 0.9%
Gibson Grant	29	1.3%	0	0.0%	6	2.3%	23	1.2%
							23 8	
Greene	12	1.3%	0	0.0%	4	3.3%		1.0%
Hamilton	164	2.1%	0	0.0%	28	3.1%	136	2.0%
Hancock	32	1.7%	0	0.0%	7	2.5%	25	1.6%
Harrison	25	2.1%	0	0.0%	5	2.9%	20	2.0%
Hendricks	60	1.2%	0	0.0%	6	1.0%	54	1.3%
Henry	29	3.1%	0	0.0%	10	5.8%	19	2.5%
Howard	38	1.8%	1	14.3%	5	1.7%	32	1.8%
Huntington	26	2.1%	1	11.1%	6	3.5%	19	1.8%
Jackson	39	2.1%	0	0.0%	7	3.4%	32	1.9%
Jasper	30	2.3%	0	0.0%	8	4.5%	22	2.0%
Jay	9	1.6%	0	0.0%	2	2.7%	7	1.5%
Jefferson	19	2.6%	0	0.0%	3	3.0%	16	2.5%
Jennings	21	3.1%	1	12.5%	8	9.5%	12	2.0%
Johnson	47	1.2%	1	6.7%	9	1.7%	37	1.1%
Knox	14	1.2%	0	0.0%	1	0.7%	13	1.2%
Kosciusko	40	1.5%	1	10.0%	10	2.7%	29	1.3%
LaGrange	19	1.8%	1	10.0%	3	2.8%	15	1.6%
Lake	271	1.5%	3	5.7%	60	2.4%	208	1.4%
La Porte	116	3.5%	2	10.0%	41	8.3%	73	2.6%
Lawrence	20	1.4%	1	33.3%	4	2.5%	15	1.2%
Madison	49	1.3%	1	7.7%	8	1.7%	40	1.2%

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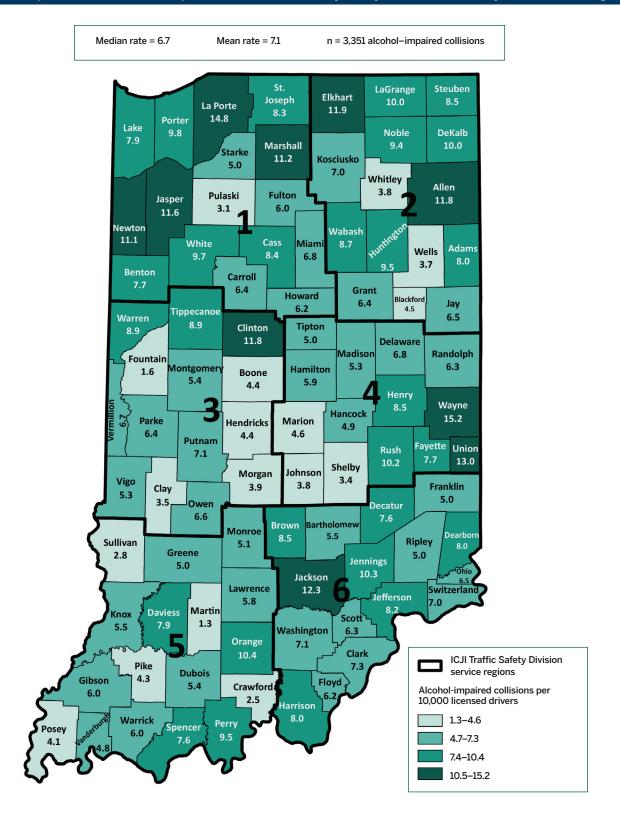
Table 2.4. Collisions in Indiana involving an alcohol-impaired driver by severity and county, 2022 (continued)

	All	All collisions		Fatal	No	on-fatal	Property damage only		
County	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	
Marion	275	0.8%	22	15.7%	76	1.4%	177	0.6%	
Marshall	37	2.4%	0	0.0%	7	4.2%	30	2.2%	
Martin	1	0.8%	0	0.0%	0	0.0%	1	0.9%	
Miami	16	1.5%	0	0.0%	5	3.8%	11	1.2%	
Monroe	43	1.2%	0	0.0%	11	1.8%	32	1.1%	
Montgomery	15	1.6%	0	0.0%	4	3.2%	11	1.4%	
Morgan	22	1.3%	1	12.5%	7	2.8%	14	1.0%	
Newton	12	3.0%	1	25.0%	1	2.4%	10	2.8%	
Noble	32	2.6%	0	0.0%	9	5.6%	23	2.2%	
Ohio	3	1.8%	0	N/A	0	0.0%	3	2.0%	
Orange	15	3.0%	0	0.0%	5	9.1%	10	2.2%	
Owen	11	2.2%	0	0.0%	3	3.6%	8	1.9%	
Parke	7	1.6%	0	0.0%	2	4.3%	5	1.3%	
Perry	13	3.5%	0	0.0%	7	11.5%	6	1.9%	
Pike	4	2.9%	0	0.0%	2	9.1%	2	1.8%	
Porter	130	2.7%	1	4.5%	30	4.5%	99	2.4%	
Posey	8	1.5%	0	0.0%	3	3.6%	5	1.1%	
Pulaski	3	0.7%	0	0.0%	0	0.0%	3	0.8%	
Putnam	19	1.9%	0	0.0%	10	6.4%	9	1.1%	
Randolph	11	2.2%	1	25.0%	0	0.0%	10	2.3%	
Ripley	11	1.7%	1	12.5%	4	4.5%	6	1.1%	
Rush	13	4.5%	0	0.0%	1	1.9%	12	5.2%	
St. Joseph	113	1.3%	1	4.3%	21	1.8%	91	1.2%	
Scott	6	1.1%	1	11.1%	0	0.0%	5	1.1%	
	26	2.1%	0	0.0%	11	4.7%	15	1.5%	
Shelby	13	2.1%	0	0.0%	2	3.4%	11	1.9%	
Spencer	9				2				
Starke		1.7%	1	33.3%		3.2%	6	1.3%	
Steuben	22	1.3%	1	25.0%	9	6.0%	12	0.8%	
Sullivan	4	1.1%	0	0.0%	0	0.0%	4	1.3%	
Switzerland	5	2.4%	0	0.0%	1	3.0%	4	2.3%	
Tippecanoe	100	1.5%	1	8.3%	25	2.8%	74	1.3%	
Tipton	6	1.4%	0	0.0%	2	2.6%	4	1.2%	
Union	7	8.3%	1	50.0%	5	33.3%	1	1.5%	
Vanderburgh	59	1.0%	1	7.1%	15	1.3%	43	0.9%	
Vermillion	8	2.2%	0	0.0%	1	2.4%	7	2.2%	
Vigo	36	1.1%	0	0.0%	9	1.6%	27	1.0%	
Wabash	20	2.3%	0	0.0%	5	5.0%	15	2.0%	
Warren	6	2.5%	0	0.0%	1	3.0%	5	2.5%	
Warrick	30	1.9%	0	0.0%	9	4.2%	21	1.5%	
Washington	15	2.1%	0	0.0%	4	4.1%	11	1.8%	
Wayne	68	3.1%	0	0.0%	21	6.9%	47	2.5%	
Wells	8	1.1%	0	0.0%	4	6.5%	4	0.6%	
White	18	2.0%	0	0.0%	1	0.9%	17	2.2%	
Whitley	10	1.1%	0	0.0%	4	3.1%	6	0.8%	
Unknown	0	N/A	0	N/A	0	N/A	0	N/A	

Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

- A collision is considered alcohol-impaired when at least one vehicle driver involved has a BAC test result at or above 0.08 g/dL.
   Percent calculations represent the percent of total county collisions in each injury category (presented in Table 2.1) that are alcohol-impaired.
   Non-fatal injury collisions include collisions reported with incapacitating, non-incapacitating, possible, refused [treatment], not reported, and unknown injuries.

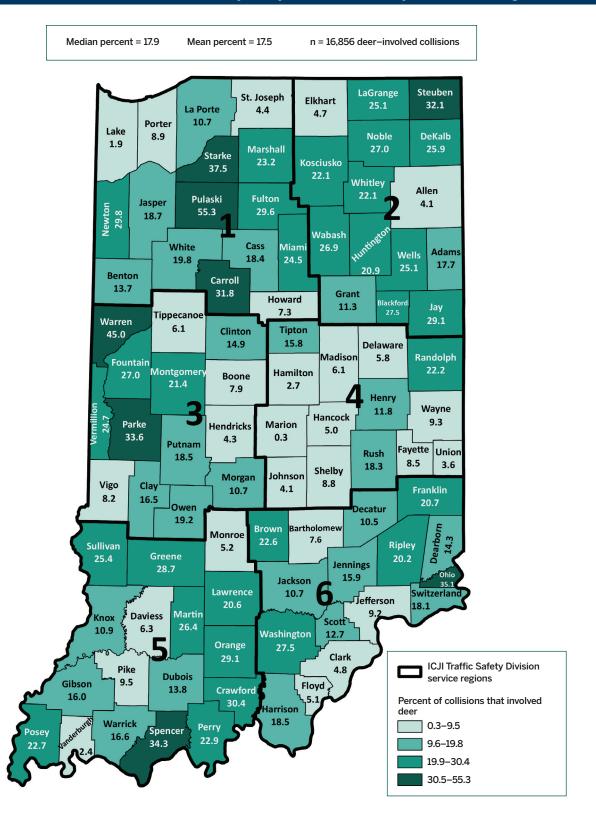
Map 2.4. Alcohol-impaired collisions in Indiana per 10,000 licensed drivers by county and ICJI Traffic Safety Division service region, 2022



Sources: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023; and Indiana Bureau of Motor Vehicles, Licensed drivers, downloaded March 22, 2023.

Note: A collision is considered alcohol-impaired when at least one vehicle driver involved has a BAC test result at or above 0.08 g/dL. Results greater than 0.59 g/dL are excluded from the analysis.

Map 2.5. Percent of collisions in Indiana that involved deer by county and ICJI Traffic Safety Division service region, 2022



Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

Table 2.5. Passenger vehicle drivers and passengers injured in collisions in Indiana by injury status, restraint use, and county, 2022

	All occupants			Fatal			Incapacitating			Non-incapacitating		
	Total	Unrestrained	% unrestrained	Total	Unrestrained	% unrestrained	Total	Unrestrained	% unrestrained	Total	Unrestrained	% unrestrained
All counties	332,165	79,788	24.0%	665	404	60.8%	9,544	2,362	24.7%	31,513	5,957	18.9%
Mean	3,610	867	29.4%	7	4	60.4%	104	26	33.2%	343	65	24.4%
Median	1,353	383	27.6%	5	3	61.8%	36	13	32.1%	155	34	22.7%
Minimum	118	29	3.2%	0	0	0.0%	3	1	6.4%	13	1	4.1%
Maximum	60,293	14,498	59.5%	80	51	100.0%	2,780	690	81.3%	4,394	917	62.1%
Adams	1,184	385	32.5%	2	0	0.0%	40	13	32.5%	118	30	25.4%
Allen	22,647	6,517	28.8%	32	16	50.0%	434	103	23.7%	2,391	491	20.5%
Bartholomew	2,803	520	18.6%	6	6	100.0%	165	24	14.5%	394	61	15.5%
Benton	178 399	46 82	25.8%	3	3 2	100.0%	4 9	2	50.0%	38 58	3	7.9% 22.4%
Blackford Boone	3,243	1,297	20.6% 40.0%	2	3	100.0% 75.0%	89	33	44.4% 37.1%	325	13 108	33.2%
Brown	613	1,297	30.7%	1	1	100.0%	13	6	46.2%	81	31	38.3%
Carroll	614	192	31.3%	7	6	85.7%	11	3	27.3%	66	21	31.8%
Cass	1,706	535	31.4%	9	4	44.4%	52	14	26.9%	224	62	27.7%
Clark	6,679	1,586	23.7%	11	11	100.0%	130	43	33.1%	662	127	19.2%
Clay	925	550	59.5%	3	0	0.0%	36	19	52.8%	68	38	55.9%
Clinton	1,485	481	32.4%	5	0	0.0%	23	12	52.2%	164	56	34.1%
Crawford	383	173	45.2%	2	1	50.0%	17	10	58.8%	51	23	45.1%
Daviess	573	313	54.6%	5	2	40.0%	35	19	54.3%	89	28	31.5%
Dearborn	2,271	712	31.4%	3	3	100.0%	65	14	21.5%	195	55	28.2%
Decatur	1,133	386	34.1%	3	1	33.3%	33	11	33.3%	126	29	23.0%
DeKalb	1,815	488	26.9%	4	2	50.0%	49	15	30.6%	176	39	22.2%
Delaware	5,826	1,010	17.3%	7	6	85.7%	158	26	16.5%	610	91	14.9%
Dubois	1,941	442	22.8%	5	1	20.0%	26	8	30.8%	193	28	14.5%
Elkhart	12,257	2,488	20.3%	33	14	42.4%	277	58	20.9%	984	130	13.2%
Fayette	695	371	53.4%	2	2	100.0%	14	2	14.3%	77	39	50.6%
Floyd	4,215	824	19.5%	7	6	85.7%	93	21	22.6%	351	51	14.5%
Fountain	466	240	51.5%	3	3	100.0%	16	13	81.3%	45	23	51.1%
Franklin	734	204	27.8%	3	1	33.3%	23	7	30.4%	64	16	25.0%
Fulton	839	381	45.4%	2	2	100.0%	18	6	33.3%	80	26	32.5%
Gibson	1,380	465	33.7%	3	1	33.3%	71	27	38.0%	179	53	29.6%
Grant	3,349	1,364	40.7%	6	2	33.3%	48	19	39.6%	316	80	25.3%
Greene	1,262	475	37.6%	5	2	40.0%	50	18	36.0%	135	37	27.4%
Hamilton	12,917	1,209	9.4%	11	7	63.6%	343	43	12.5%	1,113	81	7.3%
Hancock	3,128	720	23.0%	5	2	40.0%	87	23	26.4%	338	84	24.9%
Harrison	1,808 8,236	557 3,218	30.8%	14 15	7 8	50.0%	66 205	19 67	28.8% 32.7%	205 598	63 175	30.7% 29.3%
Hendricks Henry	1,385	359	39.1% 25.9%	6	3	53.3% 50.0%	205 45	13	28.9%	225	43	29.5% 19.1%
Howard	3,628	1,397	38.5%	6	2	33.3%	86	23	26.7%	349	105	30.1%
Huntington	1,693	352	20.8%	9	4	44.4%	38	13	34.2%	191	28	14.7%
Jackson	2,781	1,241	44.6%	9	7	77.8%	48	23	47.9%	278	104	37.4%
Jasper	1,621	297	18.3%	6	5	83.3%	42	17	40.5%	207	34	16.4%
Jay	722	248	34.3%	7	7	100.0%	35	11	31.4%	88	27	30.7%
Jefferson	1,176	384	32.7%	2	2	100.0%	20	6	30.0%	131	33	25.2%
Jennings	1,019	348	34.2%	7	5	71.4%	22	10	45.5%	111	29	26.1%
Johnson	6,672	1,571	23.5%	8	3	37.5%	233	45	19.3%	499	107	21.4%
Knox	1,849	689	37.3%	4	3	75.0%	42	21	50.0%	156	48	30.8%
Kosciusko	3,552	231	6.5%	8	5	62.5%	21	4	19.0%	451	25	5.5%
LaGrange	1,361	180	13.2%	5	4	80.0%	90	15	16.7%	55	8	14.5%
Lake	30,721	6,379	20.8%	48	39	81.3%	687	144	21.0%	2,704	369	13.6%
La Porte	5,216	1,013	19.4%	11	7	63.6%	104	24	23.1%	626	62	9.9%
Lawrence	2,121	526	24.8%	3	1	33.3%	26	6	23.1%	217	45	20.7%
Madison	6,482	1,824	28.1%	10	7	70.0%	158	40	25.3%	588	108	18.4%

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Table 2.5. Passenger vehicle drivers and passengers injured in Indiana collisions, by injury status, restraint use, and county, 2022 (continued)

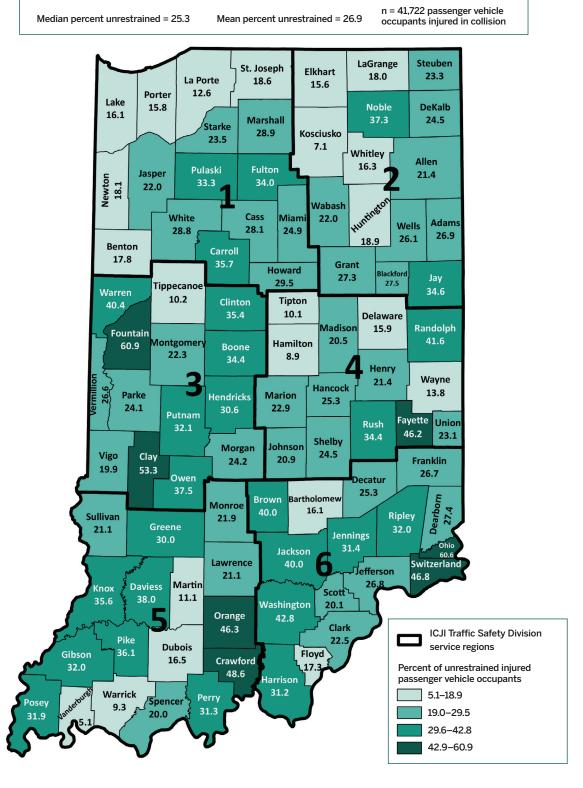
	All occupants			Fatal			Incapacitating			Non-incapacitating		
	Total	Unrestrained	% unrestrained	Total	Unrestrained	% unrestrained	Total	Unrestrained	% unrestrained	Total	Unrestrained	% unrestrained
Marion	60,293	14,498	24.0%	80	51	63.8%	2,780	690	24.8%	4,394	917	20.9%
Marshall	2,000	532	26.6%	9	8	88.9%	69	16	23.2%	154	43	27.9%
Martin	151	40	26.5%	1	0	0.0%	3	1	33.3%	14	1	7.1%
Miami	1,488	548	36.8%	3	2	66.7%	33	13	39.4%	149	31	20.8%
Monroe	6,268	1,774	28.3%	10	7	70.0%	79	28	35.4%	728	144	19.8%
Montgomery	1,338	309	23.1%	5	4	80.0%	23	6	26.1%	160	32	20.0%
Morgan	2,561	772	30.1%	7	5	71.4%	78	25	32.1%	308	65	21.1%
Newton	468	73	15.6%	3	2	66.7%	12	3	25.0%	57	8	14.0%
Noble	1,687	606	35.9%	6	4	66.7%	51	17	33.3%	192	72	37.5%
Ohio	200	115	57.5%	0	0	N/A	4	2	50.0%	29	18	62.1%
Orange	690	408	59.1%	0	0	N/A	18	12	66.7%	64	26	40.6%
Owen	729 543	357 64	49.0% 11.8%	1 1	0	0.0%	38 28	14 9	36.8% 32.1%	89 25	34 4	38.2% 16.0%
Parke												
Perry Pike	519 172	134 44	25.8% 25.6%	1 1	1	100.0% 0.0%	9	3 2	33.3% 33.3%	57 29	17 11	29.8% 37.9%
Porter	7,739	1,295	16.7%	18	11	61.1%	156	47	30.1%	797	95	11.9%
Posey	7,739	280	37.7%	2	2	100.0%	22	7	31.8%	89	27	30.3%
Pulaski	536	129	24.1%	2	1	50.0%	14	7	50.0%	56	16	28.6%
Putnam	1,311	485	37.0%	6	2	33.3%	40	11	27.5%	169	56	33.1%
Randolph	704	302	42.9%	3	2	66.7%	20	10	50.0%	90	35	38.9%
Ripley	890	253	28.4%	5	3	60.0%	21	10	47.6%	121	34	28.1%
Rush	410	118	28.8%	6	3	50.0%	21	8	38.1%	63	20	31.7%
St. Joseph	15,122	3,618	23.9%	14	5	35.7%	307	77	25.1%	1,412	240	17.0%
Scott	880	234	26.6%	5	2	40.0%	26	9	34.6%	158	27	17.1%
Shelby	1,766	469	26.6%	8	5	62.5%	86	23	26.7%	200	44	22.0%
Spencer	816	240	29.4%	4	4	100.0%	29	10	34.5%	82	9	11.0%
Starke	666	110	16.5%	1	1	100.0%	18	7	38.9%	66	12	18.2%
Steuben	2,061	526	25.5%	2	1	50.0%	24	10	41.7%	150	30	20.0%
Sullivan	514	152	29.6%	4	1	25.0%	12	3	25.0%	60	12	20.0%
Switzerland	267	124	46.4%	1	1	100.0%	12	8	66.7%	34	13	38.2%
Tippecanoe	10,760	1,336	12.4%	8	3	37.5%	63	13	20.6%	1,111	105	9.5%
Tipton	613	99	16.2%	5	2	40.0%	14	4	28.6%	90	5	5.6%
Union	118	29	24.6%	2	2	100.0%	11	1	9.1%	13	3	23.1%
Vanderburgh	9,896	319	3.2%	10	3	30.0%	661	42	6.4%	1,004	41	4.1%
Vermillion	458	155	33.8%	3	2	66.7%	24	9	37.5%	37	6	16.2%
Vigo	5,344	1,390	26.0%	19	14	73.7%	124	25	20.2%	621	113	18.2%
Wabash	1,134	244	21.5%	2	1	50.0%	35	8	22.9%	90	19	21.1%
Warren	281	143	50.9%	2	2	100.0%	6	2	33.3%	44	17	38.6%
Warrick	2,376	168	7.1%	3	3	100.0%	12	3	25.0%	264	20	7.6%
Washington	983	334	34.0%	7	4	57.1%	29	13	44.8%	123	51	41.5%
Wayne	3,363	625	18.6%	4	2	50.0%	40	8	20.0%	355	45	12.7%
Wells	1,081	289	26.7%	2	1	50.0%	10	4	40.0%	99	24	24.2%
White	1,179	323	27.4%	7	4	57.1%	40	12	30.0%	116	31	26.7%
Whitley	1,345	267	19.9%	10	4	40.0%	39	13	33.3%	160	17	10.6%

Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

### Notes:

- 1) Includes only drivers and passengers in passenger vehicles—passenger cars, pickup trucks, sport utility vehicles, and vans. Pedestrians, pedalcyclists, and animal-drawn vehicle operators are excluded.
- 2) The "all occupants" column including occupants in collisions for which incapacitating injuries, non-incapacitating injuries, or property damage were reported. Data for individuals in property damage only collisions is not shown separately.
- 3) Restraint use includes seat belts as well as child restraints.
- 4) Unrestrained occupants (drivers and passengers) included records coded as unrestrained and null for restraint usage. Total counts include vehicle occupants identified as restrained, unrestrained, and unknown restraint usage.
- 5) Non-incapacitating injuries include those reported as non-incapacitating, possible, refused [treatment], not reported, and unknown injuries.

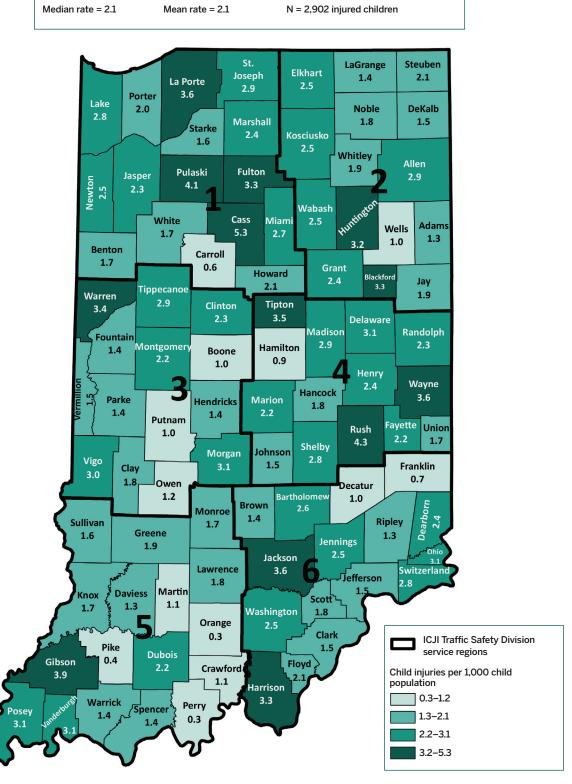
Map 2.6. Percent of unrestrained injured passenger vehicle occupants in collisions in Indiana by county and ICJI Traffic Safety Division service region, 2022



### Notes:

- 1) Includes only drivers and passengers in passenger vehicles—passenger cars, pickup trucks, sport utility vehicles, and vans. Pedestrians, pedalcyclists, and animal-drawn vehicle operators are excluded.
- 2) Restraint use includes seat belts and child restraints.
- Unrestrained occupants (drivers and passengers) included records coded as unrestrained and null for restraint usage.
   Total counts include vehicle occupants identified as restrained, unrestrained, and unknown restraint usage.

Map 2.7. Child injuries in collisions in Indiana per 1,000 child population by county and ICJI Traffic Safety Division service region, 2022



Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023; and U.S. Census Bureau, 2020 age-specific population estimates.

### Notes

- 1) Includes all individuals ages 0-14 identified as injured occupants, pedestrians, and pedalcyclists as well as drivers and animal-drawn vehicle operators ages 8-14
- 2) Injured includes those injuries reported as fatal, incapacitating, non-incapacitating, possible, refused [treatment], not reported, and unknown.

Table 2.6. Young drivers (ages 15–20) in collisions in Indiana by injury status and county, 2022

						Young driv	ers in collisions				
			Total		Fatal	Incap	pacitating	Non-ind	capacitating	No	injury
County	All drivers in collisions	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
All counties	350,670	39,028	11.1%	48	0.1%	788	2.0%	3,207	8.2%	34,985	89.6%
Mean	3,812	424	12.3%	1	0.2%	9	2.2%	35	10.0%	380	87.6%
Median	1,471	179	12.2%	0	0.0%	3	1.8%	18	9.6%	151	88.5%
Minimum	121	18	8.3%	0	0.0%	0	0.0%	1	2.1%	13	72.2%
Maximum	63,401	5,841	16.5%	5	2.4%	215	10.5%	365	27.8%	5,256	95.9%
Adams	1,235	147	11.9%	0	0.0%	2	1.4%	19	12.9%	126	85.7%
Allen	23,832	2,716	11.4%	1	0.0%	32	1.2%	228	8.4%	2,455	90.4%
Bartholomew	2,883	360	12.5%	0	0.0%	16	4.4%	49	13.6%	295	81.9%
Benton	187	29	15.5%	0	0.0%	0	0.0%	2	6.9%	27	93.1%
Blackford	420	48	11.4%	0	0.0%	0	0.0%	13	27.1%	35	72.9%
Boone	3,860	395	10.2%	0	0.0%	13	3.3%	43	10.9%	339	85.8%
Brown	667	99	14.8%	0	0.0%	2	2.0%	12	12.1%	85	85.9%
Carroll	661	85	12.9%	2	2.4%	2	2.4%	9	10.6%	72	84.7%
Cass	1,695	203	12.0%	0	0.0%	2	1.0%	26	12.8%	175	86.2%
Clark	7,074	690	9.8%	0	0.0%	11	1.6%	52	7.5%	627	90.9%
Clay	1,030	120	11.7%	0	0.0%	6	5.0%	10	8.3%	104	86.7%
Clinton	1,611	184	11.4%	0	0.0%	2	1.1%	20	10.9%	162	88.0%
Crawford	413	38	9.2%	0	0.0%	1	2.6%	7	18.4%	30	78.9%
Daviess	599	77	12.9%	1	1.3%	6	7.8%	9	11.7%	61	79.2%
Dearborn	2,394	281	11.7%	0	0.0%	5	1.8%	32	11.4%	244	86.8%
Decatur	1,200	146	12.2%	0	0.0%	1	0.7%	15	10.3%	130	89.0%
DeKalb	1,881	223	11.9%	0	0.0%	6	2.7%	18	8.1%	199	89.2%
Delaware	5,953	807	13.6%	1	0.1%	13	1.6%	68	8.4%	725	89.8%
Dubois	2,034	305	15.0%	0	0.0%		0.0%	26	8.5%	279	91.5%
Elkhart	12,971	1,424	11.0%	1	0.1%	16	1.1%	91	6.4%	1,316	92.4%
Fayette	713	77	10.8%	0	0.0%	1	1.3%	10	13.0%	66	85.7%
Floyd	4,358	506	11.6%	2	0.4%	12	2.4%	33	6.5%	459	90.7%
Fountain	507	71	14.0%	0	0.0%	1	1.4%	7	9.9%	63	88.7%
Franklin	806	116	14.4%	0	0.0%	2	1.7%	14	12.1%	100	86.2%
Fulton	851	100	11.8%	0	0.0%	2	2.0%	3	3.0%	95	95.0%
Gibson	1,486	175	11.8%	0	0.0%	6	3.4%	20	11.4%	149	85.1%
Grant	3,639	380	10.4%	0	0.0%	7	1.8%	29	7.6%	344	90.5%
Greene	1,292	179	13.9%	1	0.6%	4	2.2%	24	13.4%	150	83.8%
Hamilton	13,380	1,985	14.8%	1	0.1%	29	1.5%	151	7.6%	1,804	90.9%
Hancock	3,413	400	11.7%	0	0.0%	5	1.3%	37	9.3%	358	89.5%
Harrison	1,852	240	13.0%	3	1.3%	2	0.8%	24	10.0%	211	87.9%
Hendricks	8,836	1,090	12.3%	3	0.3%	18	1.7%	73	6.7%	996	91.4%
Henry	1,502	178	11.9%	0	0.0%	2	1.1%	28	15.7%	148	83.1%
Howard	3,696	420	11.4%	0	0.0%	7	1.7%	36	8.6%	377	89.8%
Huntington	1,825	192	10.5%	1	0.5%	5	2.6%	21	10.9%	165	85.9%
Jackson	3,029	314	10.4%	1	0.3%	3	1.0%	25	8.0%	285	90.8%
Jasper	1,937	224	11.6%	1	0.4%	6	2.7%	17	7.6%	200	89.3%
Jay	772	102	13.2%	0	0.0%	3	2.9%	19	18.6%	80	78.4%
Jefferson	1,223	152	12.4%	0	0.0%	1	0.7%	14	9.2%	137	90.1%
Jennings	1,066	148	13.9%	1	0.7%	2	1.4%	12	8.1%	133	89.9%
Johnson	6,906	934	13.5%	0	0.0%	15	1.6%	57	6.1%	862	92.3%
Knox	1,953	242	12.4%	1	0.4%	3	1.2%	15	6.2%	223	92.1%
Kosciusko	3,666	491	13.4%	0	0.0%	2	0.4%	48	9.8%	441	89.8%
LaGrange	1,478	195	13.2%	1	0.5%	3	1.5%	4	2.1%	187	95.9%
Lake	32,997	2,732	8.3%	0	0.0%	43	1.6%	185	6.8%	2,504	91.7%
La Porte	5,598	530	9.5%	2	0.4%	13	2.5%	63	11.9%	452	85.3%
Lawrence	2,175	261	12.0%	0	0.0%	1	0.4%	20	7.7%	240	92.0%
Madison	6,759	681	10.1%	0	0.0%	8	1.2%	69	10.1%	604	88.7%

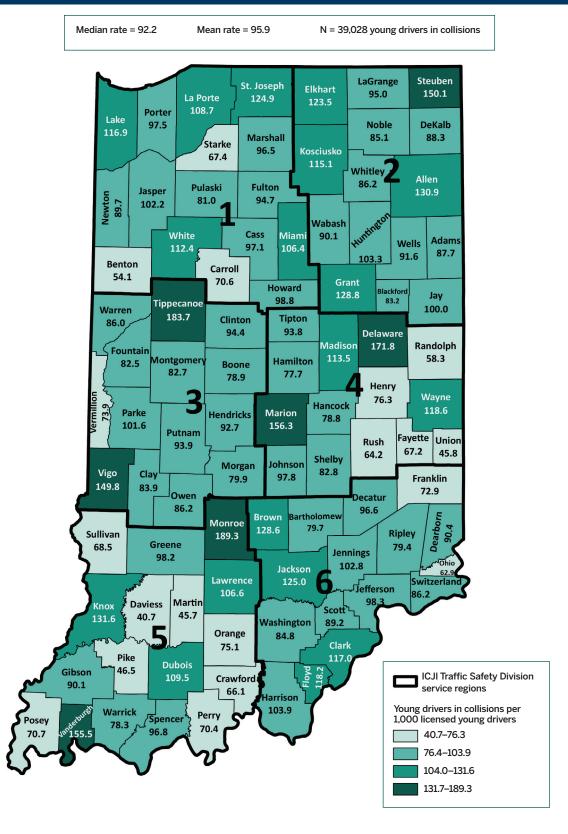
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Table 2.6. Young drivers (ages 15–20) in collisions in Indiana by injury status and county, 2022 (continued)

County col  Marion 6  Marshall  Martin  Miami  Monroe 6  Montgomery  Morgan  Newton  Noble  Ohio  Orange  Owen  Parke  Perry  Pike	All rivers in oblisions 63,401 2,155 166 1,591 6,542 1,420 2,681 526 1,774 208 727 741 568 559	Count  5,841 269 26 183 994 167 339 63 227 18 77 98	As % of total drivers in collisions  9.2% 12.5% 15.7% 11.5% 15.2% 11.8% 12.6% 12.0% 12.8% 8.7% 10.6%	Count 5 1 0 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0	As % of all young drivers in collisions  0.1% 0.4% 0.0% 0.0% 0.1% 0.6% 0.3% 0.0%	Count 215 6 1 5 8 2 11	As % of all young drivers in collisions  3.7% 2.2% 3.8% 2.7% 0.8% 1.2%	Count  365 18 3 18 98 19	As % of all young drivers in collisions 6.2% 6.7% 11.5% 9.8% 9.9% 11.4%	Count 5,256 244 22 160 887 145	As % of all young drivers in collisions 90.0% 90.7% 84.6% 87.4% 89.2% 86.8%
County col  Marion 6  Marshall  Martin  Miami  Monroe 6  Montgomery  Morgan  Newton  Noble  Ohio  Orange  Owen  Parke  Perry  Pike  Porter 8  Posey	rivers in billisions 63,401 2,155 166 1,591 6,542 1,420 2,681 526 1,774 208 727 741 568	5,841 269 26 183 994 167 339 63 227 18 77	drivers in collisions  9.2%  12.5%  15.7%  11.5%  15.2%  11.8%  12.6%  12.0%  12.8%  8.7%	5 1 0 0 1 1 1 0	young drivers in collisions  0.1% 0.4% 0.0% 0.0% 0.1% 0.6% 0.3% 0.0%	215 6 1 5 8 2	young drivers in collisions  3.7% 2.2% 3.8% 2.7% 0.8%	365 18 3 18 98	young drivers in collisions 6.2% 6.7% 11.5% 9.8% 9.9%	5,256 244 22 160 887	young drivers in collisions 90.0% 90.7% 84.6% 87.4% 89.2%
Marshall Martin Miami Monroe Montgomery Morgan Newton Noble Ohio Orange Owen Parke Perry Pike Porter Posey	2,155 166 1,591 6,542 1,420 2,681 526 1,774 208 727 741 568	269 26 183 994 167 339 63 227 18 77	12.5% 15.7% 11.5% 15.2% 11.8% 12.6% 12.0% 12.8% 8.7%	1 0 0 1 1 1 1 0	0.4% 0.0% 0.0% 0.1% 0.6% 0.3% 0.0%	6 1 5 8 2	2.2% 3.8% 2.7% 0.8%	18 3 18 98	6.7% 11.5% 9.8% 9.9%	244 22 160 887	90.7% 84.6% 87.4% 89.2%
Martin Miami Monroe Montgomery Morgan Newton Noble Ohio Orange Owen Parke Perry Pike Porter Posey	166 1,591 6,542 1,420 2,681 526 1,774 208 727 741 568	26 183 994 167 339 63 227 18 77	15.7% 11.5% 15.2% 11.8% 12.6% 12.0% 12.8% 8.7%	0 0 1 1 1 0	0.0% 0.0% 0.1% 0.6% 0.3% 0.0%	1 5 8 2	3.8% 2.7% 0.8%	3 18 98	11.5% 9.8% 9.9%	22 160 887	84.6% 87.4% 89.2%
Miami Monroe Montgomery Morgan Newton Noble Ohio Orange Owen Parke Perry Pike Porter Posey	1,591 6,542 1,420 2,681 526 1,774 208 727 741 568	183 994 167 339 63 227 18 77	11.5% 15.2% 11.8% 12.6% 12.0% 12.8% 8.7%	0 1 1 1 0 0	0.0% 0.1% 0.6% 0.3% 0.0%	5 8 2	2.7% 0.8%	18 98	9.8% 9.9%	160 887	87.4% 89.2%
Monroe Montgomery Morgan Newton Noble Ohio Orange Owen Parke Perry Pike Porter Posey	6,542 1,420 2,681 526 1,774 208 727 741 568	994 167 339 63 227 18 77 98	15.2% 11.8% 12.6% 12.0% 12.8% 8.7%	1 1 1 0	0.1% 0.6% 0.3% 0.0%	8 2	0.8%	98	9.9%	887	89.2%
Montgomery Morgan Newton Noble Ohio Orange Owen Parke Perry Pike Porter 8	1,420 2,681 526 1,774 208 727 741 568	167 339 63 227 18 77 98	11.8% 12.6% 12.0% 12.8% 8.7%	1 1 0 0	0.6% 0.3% 0.0%	2					
Morgan Newton Noble Ohio Orange Owen Parke Perry Pike Porter Posey	2.681 526 1,774 208 727 741 568	339 63 227 18 77 98	12.6% 12.0% 12.8% 8.7%	1 0 0	0.3% 0.0%		1.2%	19	11.4%	145	06 00/
Newton Noble Ohio Orange Owen Parke Perry Pike Porter Posey	526 1,774 208 727 741 568	63 227 18 77 98	12.0% 12.8% 8.7%	0	0.0%	11					00.0%
Noble Ohio Orange Owen Parke Perry Pike Porter Posey	1,774 208 727 741 568	227 18 77 98	12.8% 8.7%	0			3.2%	32	9.4%	295	87.0%
Ohio Orange Owen Parke Perry Pike Porter Posey	208 727 741 568	18 77 98	8.7%		0.00/	1	1.6%	8	12.7%	54	85.7%
Orange Owen Parke Perry Pike Porter Posey	727 741 568	77 98		0	0.0%	6	2.6%	27	11.9%	194	85.5%
Owen Parke Perry Pike Porter Posey	741 568	98	10.6%	9	0.0%	0	0.0%	5	27.8%	13	72.2%
Parke Perry Pike Porter & 8 Posey	568		10.070	0	0.0%	3	3.9%	5	6.5%	69	89.6%
Perry Pike Porter 8 Posey			13.2%	0	0.0%	4	4.1%	10	10.2%	84	85.7%
Pike Porter 8 Posey	559	75	13.2%	0	0.0%	4	5.3%	4	5.3%	67	89.3%
Porter 8 Posey		77	13.8%	0	0.0%	4	5.2%	10	13.0%	63	81.8%
Posey	194	32	16.5%	0	0.0%	1	3.1%	4	12.5%	27	84.4%
-	8,330	943	11.3%	0	0.0%	19	2.0%	89	9.4%	835	88.5%
Pulaski	799	104	13.0%	0	0.0%	3	2.9%	12	11.5%	89	85.6%
	553	56	10.1%	0	0.0%	1	1.8%	7	12.5%	48	85.7%
Putnam	1,464	179	12.2%	1	0.6%	6	3.4%	20	11.2%	152	84.9%
Randolph	735	74	10.1%	1	1.4%	2	2.7%	15	20.3%	56	75.7%
Ripley	960	145	15.1%	2	1.4%	4	2.8%	12	8.3%	127	87.6%
Rush	419	60	14.3%	1	1.7%	3	5.0%	4	6.7%	52	86.7%
St. Joseph 15	15,603	1,536	9.8%	1	0.1%	25	1.6%	91	5.9%	1,419	92.4%
Scott	914	111	12.1%	0	0.0%	2	1.8%	15	13.5%	94	84.7%
Shelby	1,944	201	10.3%	1	0.5%	10	5.0%	23	11.4%	167	83.1%
Spencer	839	120	14.3%	0	0.0%	4	3.3%	10	8.3%	106	88.3%
Starke	704	81	11.5%	0	0.0%	1	1.2%	8	9.9%	72	88.9%
Steuben 2	2,392	256	10.7%	0	0.0%	4	1.6%	16	6.3%	236	92.2%
Sullivan	542	74	13.7%	0	0.0%	0	0.0%	8	10.8%	66	89.2%
Switzerland	281	40	14.2%	0	0.0%	2	5.0%	1	2.5%	37	92.5%
Tippecanoe 1	11,259	1,491	13.2%	1	0.1%	7	0.5%	105	7.0%	1,378	92.4%
Tipton	681	78	11.5%	1	1.3%	1	1.3%	14	17.9%	62	79.5%
Union	121	19	15.7%	0	0.0%	2	10.5%	1	5.3%	16	84.2%
Vanderburgh	9,951	1,253	12.6%	2	0.2%	46	3.7%	126	10.1%	1,079	86.1%
Vermillion	503	64	12.7%	1	1.6%	2	3.1%	2	3.1%	59	92.2%
Vigo !	5,585	673	12.1%	2	0.3%	11	1.6%	58	8.6%	602	89.5%
Wabash	1,193	151	12.7%	0	0.0%	5	3.3%	12	7.9%	134	88.7%
Warren	291	43	14.8%	0	0.0%	1	2.3%	4	9.3%	38	88.4%
Warrick 2	2,408	329	13.7%	0	0.0%	0	0.0%	29	8.8%	300	91.2%
Washington	1,013	127	12.5%	0	0.0%	3	2.4%	16	12.6%	108	85.0%
	3,715	349	9.4%	0	0.0%	5	1.4%	42	12.0%	302	86.5%
-	1,146	163	14.2%	0	0.0%	2	1.2%	11	6.7%	150	92.0%
	1,341	154	11.5%	1	0.6%	1	0.6%	11	7.1%	141	91.6%
	1,416	176	12.4%	0	0.0%	3	1.7%	12	6.8%	161	91.5%
Unknown	19	2	N/A	0	N/A	0	N/A	0			

Notes:
1) Young drivers are drivers ages 15–20.
2) Count of total drivers includes records with unknown or invalid ages.

Map 2.8. Young drivers (ages 15–20) in collisions in Indiana per 1,000 licensed young drivers by county and ICJI Traffic Safety Division service region, 2022



Sources: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023; and Indiana Bureau of Motor Vehicles, Licensed drivers, downloaded March 22, 2023.

Note: Young drivers are drivers ages 15-20.

Table 2.7. Motorcyclists involved in collisions in Indiana by injury status and county, 2022

	Total motor	cyclists involved	ı	Fatal	Incap	acitating	Non-inc	apacitating	No	injury
Count           All counties         3,102           Mean         34           Median         18           Minimum         2           Maximum         359           Adams         7           Allen         201           Bartholomew         48	Count	County rank	Count	As % county total	Count	As % county total	Count	As % county total	Count	As % county total
All counties	3.102	N/A	123	4.0%	960	30.9%	1,146	36.9%	873	28.1%
	34	N/A	1	4.0%	10	29.4%	12	40.7%	9	26.0%
		N/A	1	1.7%	6	28.9%	7	39.0%	5	26.7%
	2	N/A	0	0.0%	0	0.0%	0	0.0%	0	0.0%
		N/A	18	20.0%	144	62.5%	80	100.0%	124	66.7%
	7	80	0	0.0%	2	28.6%	2	28.6%	3	42.9%
Allen	201	2	8	4.0%	57	28.4%	80	39.8%	56	27.9%
Bartholomew	48	19	1	2.1%	21	43.8%	16	33.3%	10	20.8%
Benton	3	90	0	0.0%	1	33.3%	2	66.7%	0	0.0%
Blackford	8	74	1	12.5%	0	0.0%	5	62.5%	2	25.0%
Boone	16	49	1	6.3%	2	12.5%	8	50.0%	5	31.3%
Brown	29	32	0	0.0%	7	24.1%	15	51.7%	7	24.1%
Carroll	16	49	2	12.5%	3	18.8%	5	31.3%	6	37.5%
Cass	18	46	1	5.6%	7	38.9%	7	38.9%	3	16.7%
Clark	50	17	0	0.0%	19	38.0%	18	36.0%	13	26.0%
Clay	19	41	1	5.3%	6	31.6%	9	47.4%	3	15.8%
Clinton	23	36	1	4.3%	4	17.4%	13	56.5%	5	21.7%
Crawford	5	85	1	20.0%	1	20.0%	3	60.0%	0	0.0%
Daviess	8	74	0	0.0%	4	50.0%	4	50.0%	0	0.0%
Dearborn	23	36	0	0.0%	8	34.8%	6	26.1%	9	39.1%
Decatur	9	72	1	11.1%	3	33.3%	3	33.3%	2	22.2%
DeKalb	21	40	0	0.0%	9	42.9%	9	42.9%	3	14.3%
Delaware	50	17	1	2.0%	19	38.0%	16	32.0%	14	28.0%
Dubois	13	57	0	0.0%	3	23.1%	6	46.2%	4	30.8%
Elkhart	106	6	9	8.5%	29	27.4%	37	34.9%	31	29.2%
Fayette	9	72	0	0.0%	4	44.4%	4	44.4%	1	11.1%
Floyd	37	24	1	2.7%	12	32.4%	15	40.5%	9	24.3%
Fountain	3	90	0	0.0%	1	33.3%	2	66.7%	0	0.0%
Franklin	19	41	0	0.0%	8	42.1%	6	31.6%	5	26.3%
Fulton	13	57	0	0.0%	4	30.8%	6	46.2%	3	23.1%
Gibson	13	57	1	7.7%	4	30.8%	5	38.5%	3	23.1%
Grant	62	13	3	4.8%	14	22.6%	26	41.9%	19	30.6%
Greene	12	63	2	16.7%	4	33.3%	5	41.7%	1	8.3%
Hamilton	68	10	3	4.4%	17	25.0%	26	38.2%	22	32.4%
Hancock	31	29	5	16.1%	9	29.0%	7	22.6%	10	32.3%
Harrison	22	39	2	9.1%	6	27.3%	12	54.5%	2	9.1%
Hendricks	66	11	2	3.0%	20	30.3%	28	42.4%	16	24.2%
Henry	26	34	2	7.7%	6	23.1%	8	30.8%	10	38.5%
Howard	31	29	0	0.0%	8	25.8%	11	35.5%	12	38.7%
Huntington	33	26	2	6.1%	9	27.3%	9	27.3%	13	39.4%
Jackson	32	27	1	3.1%	11	34.4%	10	31.3%	10	31.3%
Jasper	16	49	0	0.0%	8	50.0%	4	25.0%	4	25.0%
Jay	11	66	0	0.0%	4	36.4%	4	36.4%	3	27.3%
Jefferson	13	57	0	0.0%	3	23.1%	6	46.2%	4	30.8%
Jennings	10	69	1	10.0%	2	20.0%	4	40.0%	3	30.0%
Johnson	57	15	3	5.3%	20	35.1%	18	31.6%	16	28.1%
Knox	14	56	0	0.0%	6	42.9%	3	21.4%	5	35.7%
Kosciusko	37	24	0	0.0%	8	21.6%	19	51.4%	10	27.0%
LaGrange	18	46	1	5.6%	5	27.8%	4	22.2%	8	44.4%
Lake	160	3	2	1.3%	36	22.5%	59	36.9%	63	39.4%
La Porte	82	7	7	8.5%	18	22.0%	35	42.7%	22	26.8%
Lawrence	38	23	0	0.0%	10	26.3%	19	50.0%	9	23.7%
Madison	56	16	1	1.8%	14	25.0%	21	37.5%	20	35.7%

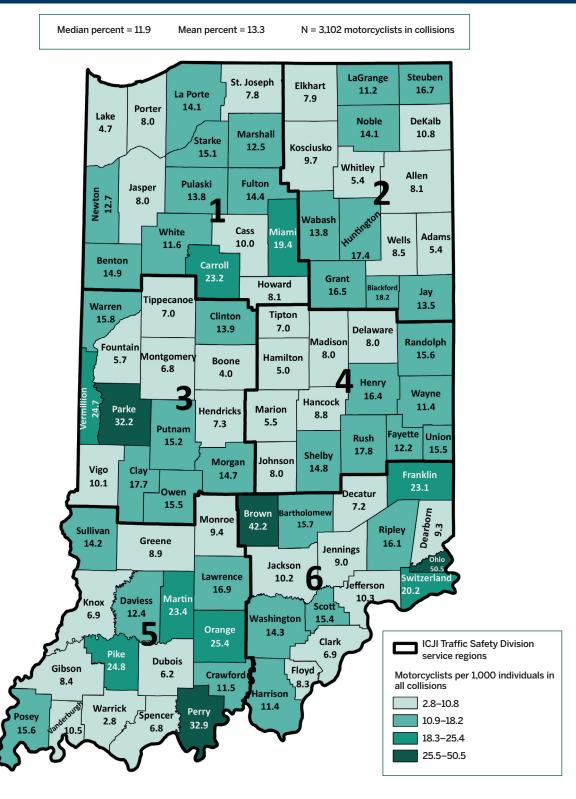
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 Table 2.7. Motorcyclists involved in collisions in Indiana by injury status and county, 2022 (continued)

	Total motoro	cyclists involved		Fatal	Incap	acitating	Non-ind	capacitating	No	injury
	Count	County rank	Count	As % county total	Count	As % county total	Count	As % county total	Count	As % county total
Marion	359	1	18	5.0%	144	40.1%	73	20.3%	124	34.5%
Marshall	28	33	1	3.6%	11	39.3%	8	28.6%	8	28.6%
Martin	4	89	0	0.0%	1	25.0%	2	50.0%	1	25.0%
Miami	32	27	0	0.0%	10	31.3%	15	46.9%	7	21.9%
Monroe	64	12	1	1.6%	21	32.8%	31	48.4%	11	17.2%
Montgomery	10	69	0	0.0%	2	20.0%	4	40.0%	4	40.0%
Morgan	41	21	0	0.0%	12	29.3%	14	34.1%	15	36.6%
Newton	7	80	0	0.0%	2	28.6%	3	42.9%	2	28.6%
Noble	26	34	1	3.8%	8	30.8%	14	53.8%	3	11.5%
Ohio	11	66	0	0.0%	6	54.5%	3	27.3%	2	18.2%
Orange	19	41	1	5.3%	10	52.6%	5	26.3%	3	15.8%
Owen	12	63	1	8.3%	4	33.3%	7	58.3%	0	0.0%
Parke	19	41	0	0.0%	9	47.4%	2	10.5%	8	42.1%
Perry	19	41	1	5.3%	11	57.9%	6	31.6%	1	5.3%
Pike	5	85	1	20.0%	0	0.0%	3	60.0%	1	20.0%
Porter	69	9	1	1.4%	21	30.4%	28	40.6%	19	27.5%
Posey	13	57	0	0.0%	3	23.1%	5	38.5%	5	38.5%
Pulaski	8	74	0	0.0%	5	62.5%	3	37.5%	0	0.0%
Putnam	23	36	2	8.7%	8	34.8%	9	39.1%	4	17.4%
Randolph	12	63	0	0.0%	3	25.0%	4	33.3%	5	41.7%
Ripley	16	49	3	18.8%	4	25.0%	7	43.8%	2	12.5%
Rush	8	74	0	0.0%	3	37.5%	3	37.5%	2	25.0%
St. Joseph	127	4	4	3.1%	45	35.4%	40	31.5%	38	29.9%
Scott	15	54	3	20.0%	3	20.0%	8	53.3%	1	6.7%
Shelby	30	31	3	10.0%	10	33.3%	9	30.0%	8	26.7%
Spencer	6	83	0	0.0%	1	16.7%	3	50.0%	2	33.3%
Starke	11	66	0	0.0%	2	18.2%	3	27.3%	6	54.5%
Steuben	41	21	2	4.9%	10	24.4%	23	56.1%	6	14.6%
Sullivan	8	74	0	0.0%	1	12.5%	6	75.0%	1	12.5%
Switzerland	6	83	0	0.0%	0	0.0%	2	33.3%	4	66.7%
Tippecanoe	81	8	1	1.2%	14	17.3%	48	59.3%	18	22.2%
Tipton	5	85	0	0.0%	0	0.0%	5	100.0%	0	0.0%
Union	2	92	0	0.0%	1	50.0%	0	0.0%	1	50.0%
Vanderburgh	109	5	2	1.8%	54	49.5%	32	29.4%	21	19.3%
Vermillion	13	57	0	0.0%	5	38.5%	5	38.5%	3	23.1%
Vigo	59	14	3	5.1%	17	28.8%	19	32.2%	20	33.9%
Wabash	17	48	1	5.9%	6	35.3%	5	29.4%	5	29.4%
Warren	5	85	0	0.0%	2	40.0%	1	20.0%	2	40.0%
Warrick	7	80	0	0.0%	0	0.0%	4	57.1%	3	42.9%
Washington	15	54	3	20.0%	1	6.7%	8	53.3%	3	20.0%
Wayne	44	20	3	6.8%	6	13.6%	21	47.7%	14	31.8%
Wells	10	69	0	0.0%	2	20.0%	4	40.0%	4	40.0%
White	16	49	0	0.0%	4	25.0%	8	50.0%	4	25.0%
Whitley	8	74	0	0.0%	2	25.0%	3	37.5%	3	37.5%
,										

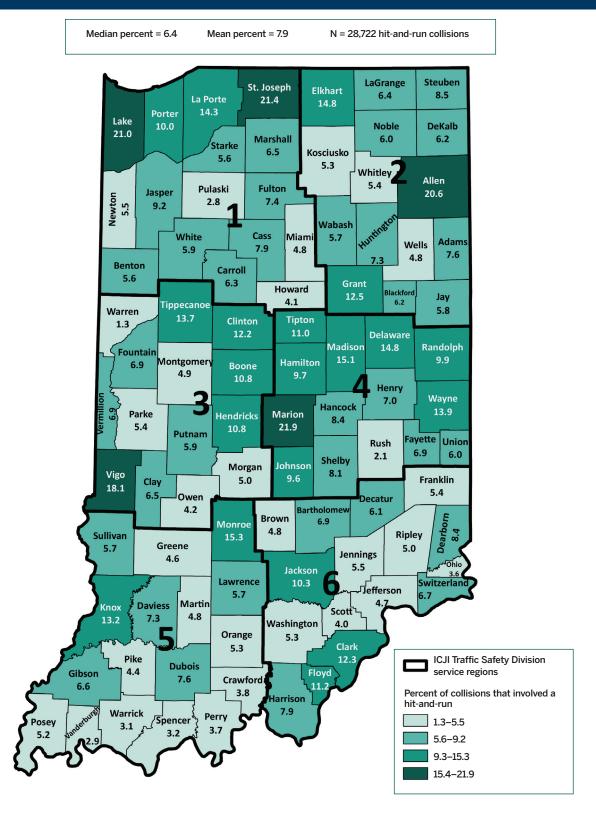
Notes:
1) Motorcyclists include operators and passengers on motorcycles, motor-driven cycles—Class A and Class B, mopeds, and motorized bicycles.
2) Non-incapacitating injuries include those reported as non-incapacitating, possible, refused [treatment], not reported, and unknown.

Map 2.9. Motorcyclists in collisions in Indiana per 1,000 individuals involved in collisions by county and ICJI Traffic Safety Division service region, 2022

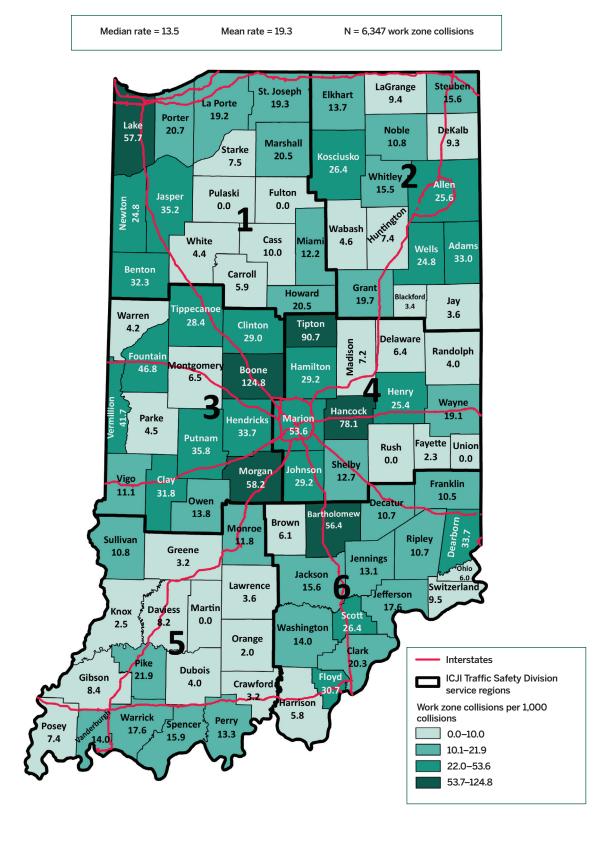


Note: Motorcyclists include operators and passengers of motorcycles, Class A and Class B motor-driven cycles, motorized bicycles, and mopeds. See glossary for unit type definitions.

Map 2.10. Percent of collisions in Indiana that involved a hit-and-run driver by county and ICJI Traffic Safety Division service region, 2022



Map 2.11. Work zone collisions In Indiana per 1,000 collisions by county and ICJI Traffic Safety Division service region, 2022



Note: The data presented here includes work zone collisions on roads of all classes. The location of interstate highways is shown only as context for readers.

Table 2.8. County ranks by collision metric, 2022

		Low	<		> High		
			Collision	n metric			
County	Fatalities per 100K population	Speed-related collisions as % of total collisions	Alcohol-impaired collisions as % of total collisions	Motorcyclists per 1,000 individuals in all collisions	Unrestrained passenger vehicle injuries as % of total injuries	Young drivers as % of total drivers in collisions	Average rank of 6 metrics
Adams	82	48	30	88	41	54	57
Allen	61	24	20	68	63	9	41
Bartholomew	73	45	44	23	79	68	55
Benton	7	75	4	31	75	88	47
Blackford	21	77	68	13	38	62	47
Boone	64	69	83	91	21	70	66
Brown	87	28	25	2	11	11	27
Carroll	1	62	42	9	17	79	35
Cass	19	26	40	57	37	37	36
Clark	60	65	52	81	57	17	55
Clay	36	88	85	15	3	61	48
Clinton	40	40	16	39	19	43	33
Crawford	15	34	91	48	4	84	46
Daviess	42	58	3	45	13	92	42
Dearborn	71	55	31	60	39	48	51
Decatur	37	9	39	77	47	39	41
DeKalb	78	17	18	52	50	53	45
Delaware	65	66	69	71	81	3	59
Dubois	46	47	67	84	77	22	57
Elkhart	30	19	28	74	83	14	41
Fayette	56	85	10	46	7	83	48
Floyd	52	86	60	66	76	16	59
Fountain	25	43	92	85	1	65	52
Franklin	54	25	55	10	43	77	44
Fulton	50	22	63	34	23	42	39
Gibson	41	33	57	65	26	50	45
Grant	43	21	71	19	40	10	34
Greene	20	46	74	62	33	34	45
Hamilton	91	81	33	89	90	73	76
Hancock	47	72	49	63	46	71	58
Harrison	2	53	36	49	31	26	33
Hendricks	68	76	77	76	32		63
Henry	38	44	9	20	62	74	41
Howard	81	79	46	67	34	32	57
Huntington	11	2	32	16	71	27	27
Jackson	31	61	35	55	11	12	34
Jasper	32	7	23	73	60	29	37
Jay	6	92	53	42	20	31	41
Jefferson	90		17	54	42	33	48
Jennings	8	38	8	61	29	28	29
Johnson	79	82	76	70	66	35	68
Knox	62	74	79	80	18	8	54
Kosciusko	58	68	58	58	91	19	59
LaGrange	24	1	47	51	74	41	40
Lake	59	15	59	90	80	18	54
La Porte	33	10	5	38	85	23	32
Lawrence	86	87	65	17	64	24	57
Madison	66	56	75	72	67	20	59

continued on next page

Table 2.8. County ranks by collision metric, 2022 (continued)

		Low	<		> High		
			Collisio	n metric			
County	Fatalities per 100K population	Speed-related collisions as % of total collisions	Alcohol-impaired collisions as % of total collisions	Motorcyclists per 1,000 individuals in all collisions	Unrestrained passenger vehicle injuries as % of total injuries	Young drivers as % of total drivers in collisions	Average rank of 6 metrics
Marion	48	54	89	86	56	4	56
Marshall	28	31	22	44	35	40	33
Martin	10	41	88	8	86	91	54
Miami	80	4	62	12	48	25	39
Monroe	76	39	78	59	61	1	52
Montgomery	39	49	54	83	58	64	58
Morgan	63	32	70	33	51	67	53
Newton	12	11	11	43	73		34
Noble	49	5	15	37	15	59	30
Ohio	92	80	48	1	2	86	52
Orange	69	60	12	5	6	75	38
Owen	75	63	29	26	14	57	44
Parke	89	67	56	4	52	30	50
Perry	67	16	6	3	30	80	34
Pike	44	42	13	6	16	89	35
Porter	57	6	14	69	82	36	44
Posey	83	64	64	24	28	78	57
Pulaski	27	90	90	40	24	66	56
Putnam	26	12	43	29	25	44	30
Randolph	45	89	25	25	9	87	47
Ripley	17	52	51	21	27	69	40
Rush	3	50	2	14	22	85	29
St. Joseph	74	23	73	75	72	13	55
Scott	5	78	86	28	68	52	53
Shelby	18	14	37	32	49	63	36
Spencer	22	71	38	82	69	38	53
Starke	55	37	50	30	53	82	51
Steuben	51	30	72	18	54	6	39
Sullivan	35	84	84	36	65	81	64
Switzerland	70	57	21	11	5	56	37
Tippecanoe	88	3	61	79	87	2	53
Tipton	9	20	66	78	88	45	51
Union	14	73	1	27	55	90	43
Vanderburgh	84	91	87	53	92	5	69
Vermillion	34	8	25	7	44	76	32
Vigo	23	83	80	56	70	70	53
Wabash	72	18	24	41	59	49	44
Warren	29	35	19	22	10	58	29
Warrick	77	59	45	92	89	72	72
			34		8		
Washington	4	35	7	35 50		60 <b>1</b> 5	29 40
Wayne	53	29			84		
Wells	85	70	82	64	45	47	66
White	16	13	41	47	36	21	29
Whitley	13	27	81	87	78	55	57

Sources: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023; Indiana Bureau of Motor Vehicles, Licensed drivers, downloaded March 22, 2023; and U.S. Census Bureau, 2022 county population estimates.

- Notes:
  1) A collision is identified as speed-related if the crash report lists unsafe speed or speed too fast for weather conditions as the primary or contributing factor of the collision, or if a vehicle driver is issued a speeding citation.
  2) A collision is considered alcohol-impaired when any vehicle driver involved has a BAC test result at or above 0.08 g/dL. BAC results greater than 0.59 g/dL are excluded from the
- analysis.
- anialysis.
  3) Motorcyclists include operators and passengers on motorcycles, motor-driven cycles—Class A and Class B, mopeds, and motorized bicycles.
  4) Young drivers are drivers ages 15 to 20.
  5) Ties received the same rank.
  6) Color scale depicts rankings from high (1) to low (92) for each individual collision metric.



# COLLISIONS

LONG PIPE VIEW PIPE

# COLLISIONS, 2022

In 2022, 206,936 traffic crashes occurred in Indiana, a 1% decrease from 2021 (Table 3.1). Fatal collisions increased 8%, from 833 in 2021 to 900 in 2022, a five-year high. Non-fatal collisions decreased 2%, from 29,831 in 2021 to 29,218 in 2022.

Collisions decreased 1% annually from 2018 to 2022. Fatal collisions increased by 3% annually, and non-fatal collisions decreased 3% during this time. The rate of fatal collisions per 1,000 collisions was 4.3 in 2022, a slight increase compared to 4.0 in 2021 but lower than the five-year high of 4.6 in 2020 (Figure 3.1). The five-year lows for fatal collisions and rate of fatal collisions per 1,000 collisions were set in 2019 at 747 and 3.4 per 1,000 collisions, respectively.

### Non-motorists

The number of crashes involving pedestrians increased to a five-year high of 1,967 in 2022 (Figure 3.2). The rate of pedestrian collisions per 1,000 collisions was 9.5, also a five-year high. The lowest number of crashes involving pedestrians was in 2020 and the lowest rate of pedestrian collisions was in 2019. In 2022, the number of pedalcyclist collisions declined considerably to a five-year low of 177, continuing the trend of since 2020. The rate of pedalcyclist collisions also reached a five-year low in 2022 at 0.9 per 1,000 collisions. The highest number of pedalcyclist collisions occurred in 2018 while the highest rate per 1,000 collisions was in 2020.

# Month, day, and time

The most collisions per month in 2022 occurred in the late fall and winter—October, November, and December (Table 3.2). However, the most fatal collisions per month occurred in summer—August, followed by July and June. There were considerable differences between 2021 and 2022 for particular months. Substantially fewer collisions occurred in October and July in 2022 than in 2021, and fewer fatal collisions occurred in November and September in 2022 than the previous year. There were considerably more collisions in January in 2022 compared to 2021. The increase in the number of fatal collisions in 2022 was primarily driven by substantial increases in fatal collisions in the months of March, July, January, and October.

Similar to 2021, collisions in 2022 were most common on Fridays. By day and hour, collisions were most common on weekdays from 3–5:59 p.m., with the highest number occurring on Thursdays and Fridays during this time period (Table 3.3). The highest proportions of fatal collisions occurred on Sundays between midnight–2:59 a.m. and 3–5:59 a.m., followed by Fridays, Saturdays, and Mondays from 3–5:59 a.m.

Counts of daytime collisions were consistently higher than nighttime collisions for each month in 2022. There were 11,712 daytime crashes on average each month compared to 5,533 nighttime crashes (Figure 3.3). The monthly average for fatal crashes also was higher during the day than at night at 40 and 35, respectively (Figure 3.4). However, the pattern for fatal collisions across months had more variability than for crashes generally. Fatal collisions during daytime hours peaked in June and August. The highest number of fatal collisions during nighttime hours occurred in August, followed by July. The lowest number of daytime fatal collisions occurred in February while nighttime fatal collisions dipped to their lowest levels in November and April. Fatal collisions during daytime hours considerably outpaced fatal collisions during nighttime hours in November, January, and April, while daytime and nighttime fatal collisions were most similar in August and September.

# **Collision type**

The most prevalent type of collision over the last five years was hit-and-run crashes, making up 14% of all crashes in 2022 (Figure 3.5). Speed-related collisions were the next most prevalent type, making up 9% of all crashes.

Hit-and-run collisions were most prevalent in February, March, July and August (Table 3.4). Speed-related collisions were especially prevalent among all crashes during the winter months—January, February, and December. Aggressive driving peaked on Fridays, Saturdays, and Sundays generally, but daily peaks varied by day of the week (Table3.5). Distracted driving collisions were highest from April to July and were less prevalent in the winter months.

Regarding time of day, speed-related collisions occurred most often between midnight—5:59 a.m. across all days of the week (Table 3.5). Hit-and-run and alcohol-impaired crashes peaked on Saturdays and Sundays during the midnight—5:59 a.m. period as well. Distracted collisions—any type were highest during the afternoon period from noon—5.59 p.m. across all days of the week except Saturdays.

# **Primary factor**

Driver-related factors were identified as the primary factor in 81% of all collisions and 87% of fatal collisions (calculated from Table 3.6). Among all driver-related factors, unsafe driver actions accounted for more than half of total collisions and fatal collisions. Within this category, failure to yield the right of way and following too closely were listed most often as the primary factor in collisions. However, unsafe speed was listed most often as the primary factor in fatal collisions.

The overall rate of fatal injury collisions per 1,000 collisions was considerably higher among primary factors attributed to driver actions than those attributed primarily to vehicle factors or environmental factors (Table 3.6 and Figure 3.6). The following driver factors had fatal collision rates per 1,000 collisions that were greater than the average rate for all collisions of 4.3 per 1,000 collisions:

- Influenced by pedestrian action: 132.2
- Wrong way on a one-way road: 51.8
- Left of center: 35.2
- Unsafe speed: 26.1
- Driver illness: 16.5
- Disregarding signal or sign: 7.5
- Ran off road: 6.6
- Overcorrecting/oversteering: 6.5
- Improper passing: 6.2
- Cell phone/other electronic device: 5.1

### Census locale and road class

In 2022, collisions in urban areas accounted for 71% of all collisions and 45% of fatal collisions. Collisions in suburban, exurban, and rural areas accounted for only 29% of all collisions but made up 55% of fatal collisions (Figure 3.7). Rates of fatal injury collisions increased in suburban areas from 6.0 per 1,000 crashes in 2021 to 7.9 in 2022. In rural areas, the rate increased from 7.5 in 2021 to 8.2 in 2022. The rate decreased in exurban areas from 10.6 in 2021 to 9.2 in 2022 and remained stable in urban locales at 2.8 in 2022 and 2.9 in 2021.

In 2022, more than half of collisions occurred on local/city roads, yet the rate of fatal collisions per 1,000 collisions was lowest on those roads at 3.0 per 1,000 collisions (Figure 3.8). In 2022, rates of fatal injury collisions were

highest on U.S. routes and county roads, at 7.8 and 7.6 per 1,000 collisions, respectively. Rates of fatal injury collisions were higher in 2022 than in 2021 across all road types except local/city roads.

# Road parameters and manner of collisions

In 2022, the majority of collisions and fatal collisions did not occur at an intersection (calculated from Table 3.7). The highest rate of fatal collisions per 1,000 collisions among all road parameters occurred at trail crossings followed by railroad crossings. Regarding road character, the rate of fatal collisions on curved roads was more than twice as high as the rate of fatal collisions on straight roads, with hillcrests accounting for the highest rates within both categories. Almost 90% of collisions in 2022 occurred on asphalt roads. The highest rates of fatal collisions per 1,000 collisions occurred on asphalt and concrete roads.

Among manners of collision, rear-end crashes accounted for almost onequarter and the largest proportion of all crashes in 2022. Running off the road accounted for almost one-third and the largest percentage of fatal collisions (Table 3.8). Manners of collision that resulted in a higher-thanaverage fatal collision rate of 4.3 per 1,000 crashes, included:

Head-on collisions: 27.8

Non-collisions: 13.7

Running off the road: 10.4

Collisions with objects in the road: 8.7

Right-angle collisions: 5.9

# Traffic control type and environmental conditions

In 2022, 14% of all collisions involved the presence of some type of traffic control measure, such as a stop sign or no passing zone (calculated from Table 3.9). The following traffic controls had fatal collision rates what were higher than the average rate of 4.3 fatal collisions per 1,000 collisions (Table 3.9):

Railroad crossing: 35.7

No passing zone: 24.8

Flashing overhead beacon: 15.9

Other regulatory sign/marking: 5.3

In 2022, 66% of collisions occurred during daylight conditions, while crashes in the dark on unlit roads had the highest rate of fatal collisions (calculated from Table 3.10). Regarding weather conditions, the greatest number of collisions and the highest rate of fatal collisions occurred during clear weather (Table 3.10). Regarding road surface conditions, 77% of collisions occurred on a dry surface. The highest rates of fatal collisions per 1,000 collisions were on roads with muddy conditions at 8.8 per 1,000 collisions and those that had standing or moving water at 6.0 per 1,000 collisions.

### Work zone collisions

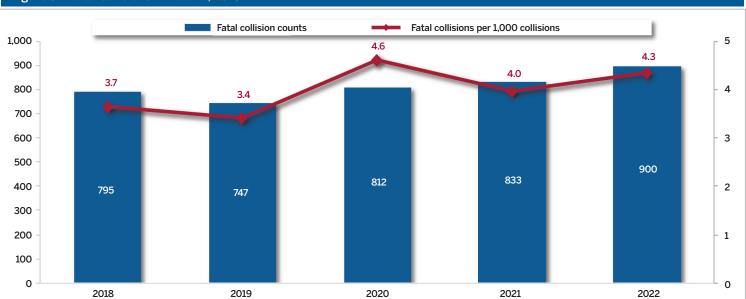
The number of work zone collisions increased from 5,154 in 2021 to a fiveyear high of 6,348 in 2022 (Figure 3.9). The fatal collision rate per 1,000 work zones collisions also increased to a five-year high of 30.7 in 2022. The fiveyear lows for collisions and fatal collision rate per 1,000 work zone collisions were in 2020 at 3,878 and 22.0 per 1,000 collisions, respectively.

	lable 3.1. Collisions in Indiana by Severity, 2018–22
- 1	

						Annual rate	e of change
	2018	2019	2020	2021	2022	2021–22	2018-22
All collisions	217,287	217,605	175,949	208,800	206,936	-0.9%	-1.2%
Fatal	795	747	812	833	900	8.0%	3.1%
Non-fatal	32,412	31,253	26,535	29,831	29,218	-2.1%	-2.6%
Property damage only	184,080	185,605	148,602	178,136	176,818	-0.7%	-1.0%

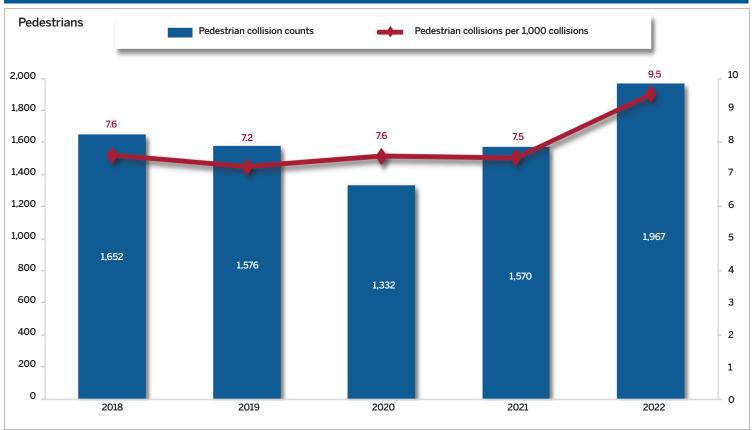
Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

Figure 3.1. Fatal collisions in Indiana, 2018-22



Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

Figure 3.2. Traffic collisions In Indiana involving pedestrians and pedalcyclists, 2018–22



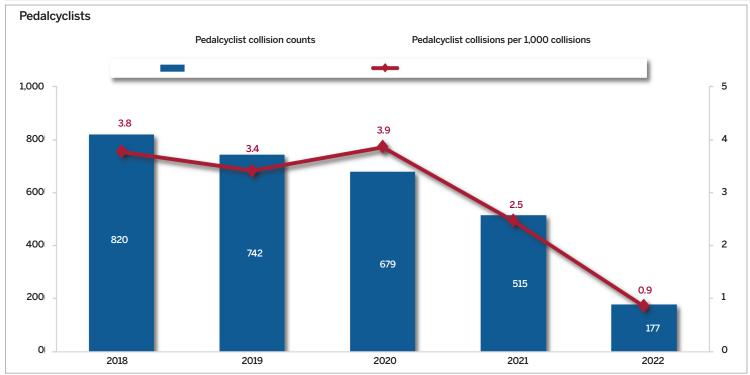


Table 3.2. Collisions in Indiana by month, 2021–22

		Total collisions			Fatal collisions		% change (20	
Month	2021	2022	Change	2021	2022	Change	Fatal	Total
Jan	15,691	17,922	2,231	63	74	11	14.2%	17.5%
Feb	15,930	16,728	798	42	50	8	5.0%	19.0%
Mar	14,561	15,300	739	50	82	32	5.1%	64.0%
Apr	16,038	15,487	-551	60	56	-4	-3.4%	-6.7%
May	17,423	18,009	586	77	81	4	3.4%	5.2%
Jun	17,729	16,681	-1,048	79	88	9	-5.9%	11.4%
Jul	17,538	16,051	-1,487		92	14	-8.5%	17.9%
Aug	17,818	17,283	-535	93	101	8	-3.0%	8.6%
Sep	17,716	16,914	-802	81	72	-9	-4.5%	-11.1%
Oct	20,484	18,920	-1,564		83	10	-7.6%	13.7%
Nov	19,726	19,116	-610	72	59	-13	-3.1%	-18.1%
Dec	18,146	18,525	379	65	62	-3	2.1%	-4.6%
Total	208,800	206,936	-1,864	833	900	67	-0.9%	8.0%

Note: Color scale is applied across 2021 and 2022 for total and fatal collisions.

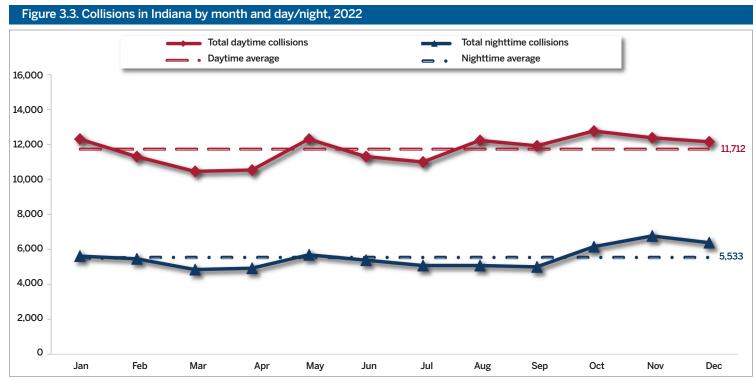
				Time o	of day				A II In a
Day of the week	Midnight-2:59 a.m.	3-5:59 a.m.	6-8:59 a.m.	9–11:59 a.m.	Noon-2:59 p.m.	3-5:59 p.m.	6-8:59 p.m.	9–11:59 p.m.	All hours
Total collisions	9,884	12,324	27,584	28,257	37,038	47,665	28,480	15,704	206,936
Sunday	2,186	1,738	1,497	2,696	3,973	3,977	3,445	1,889	21,401
Monday	1,067	1,680	4,595	4,179	5,175	6,938	3,635	1,788	29,057
Tuesday	1,032	1,723	4,834	4,105	5,176	7,743	3,929	1,791	30,333
Wednesday	925	1,699	4,679	4,194	5,545	7,532	4,043	1,915	30,532
Thursday	1,219	1,796	4,751	3,980	5,444	8,158	4,331	2,201	31,880
Friday	1,405	1,981	5,002	4,720	6,504	8,252	4,774	3,072	35,710
Saturday	2,050	1,707	2,226	4,383	5,221	5,065	4,323	3,048	28,023
Fatal collisions	80	114	115	111	113	142	122	103	900
Sunday	28	21	13	9	13	17	17	12	130
Monday	9	17	12	23	17	21	20	15	134
Tuesday	1	11	16	17	11	18	14	13	101
Wednesday	4	11	20	16	21	12	16	11	111
Thursday	9	16	19	11	15	24	19	10	123
Friday	9	21	22	14	19	28	22	20	155
Saturday	20	17	13	21	17	22	14	22	146
% fatal	0.8%	0.9%	0.4%	0.4%	0.3%	0.3%	0.4%	0.7%	0.4%
Sunday	1.28%	1.21%	0.87%	0.33%	0.33%	0.43%	0.49%	0.64%	0.61%
Monday	0.84%	1.01%	0.26%	0.55%	0.33%	0.30%	0.55%	0.84%	
Tuesday	0.10%	0.64%	0.33%	0.41%	0.21%	0.23%	0.36%	0.73%	0.33%
Wednesday	0.43%	0.65%	0.43%	0.38%	0.38%	0.16%	0.40%	0.57%	0.36%
Thursday	0.74%	0.89%	0.40%	0.28%	0.28%	0.29%	0.44%	0.45%	0.39%
Friday	0.64%	1.06%	0.44%	0.30%	0.29%	0.34%	0.46%	0.65%	0.43%
Saturday	0.98%	1.00%	0.58%	0.48%	0.33%	0.43%	0.32%	0.72%	0.52%

Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

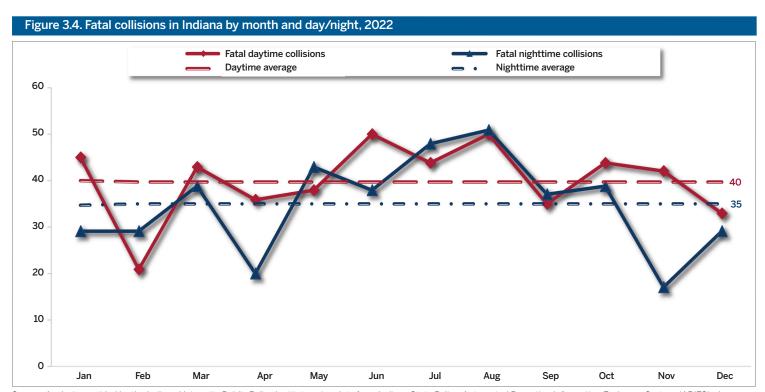
- Data limited to collisions for which day and time were reported.
   Color scale is applied across days and times for total collisions and percent fatal.

Low

High



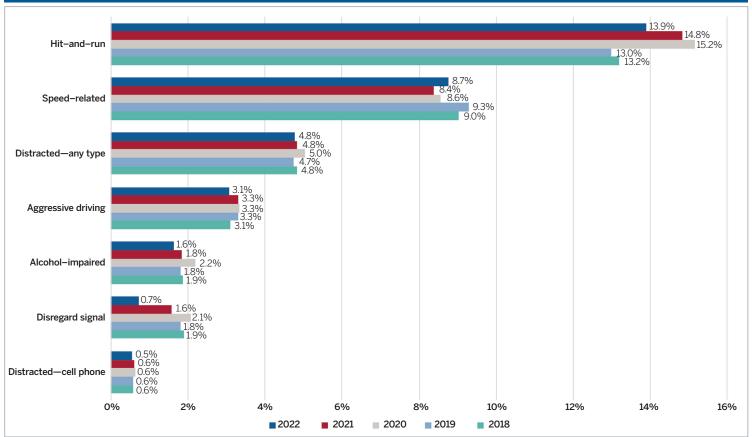
Note: Day is defined as 6 a.m.-5:59 p.m. Night is defined as 6 p.m.-5:59 a.m.



Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

Note: Day is defined as 6 a.m.-5:59 p.m. Night is defined as 6 p.m.-5:59 a.m.

Figure 3.5. Collisions in Indiana by collision circumstances, 2018–22



### Notes:

1) See glossary for definitions of alcohol-impaired, aggressive driving, speed-related, disregard signal, hit-and-run, distracted—any type, and distracted—cell phone collisions.

2) Percents for different collision circumstances will not sum to 100%.

		Alcohol-	impaired	Aggressi	ve driving	Speed-	-related	Disrega	rd signal	Hit-ar	nd-run	Distracted	l-any type		ted-cell one
Month	Total	Count	As % month total	Count	As % month total	Count	As % month total	Count	As % month total	Count	As % month total	Count	As % month total	Count	As % month total
Jan	17,922	294	1.6	576	3.2	3,135	17.5	153	0.9	2,416	13.5	709	4.0	70	0.4
Feb	16,728	250	1.5	595	3.6	2,918	17.4	131	0.8	2,335	14.0	589	3.5	66	0.4
Mar	15,300	269	1.8	456	3.0	1,082	7.1	135	0.9	2,329	15.2	766	5.0	87	0.6
Apr	15,487	285	1.8	462		870	5.6	143	0.9	2,330	15.0	847	5.5	94	0.6
May	18,009	301	1.7	525	2.9	1,064	5.9	147	0.8	2,500	13.9	946	5.3	116	0.6
Jun	16,681	258	1.5	480	2.9	808	4.8	107	0.6	2,344	14.1	909	5.4	96	0.6
Jul	16,051	264	1.6	501	3.1	1,029	6.4	122	0.8	2,392	14.9	861	5.4	94	0.6
Aug	17,283	254	1.5	540	3.1	984	5.7	117	0.7	2,545	14.7	884	5.1	106	0.6
Sep	16,914	263	1.6	503	3.0	929	5.5	116	0.7	2,333	13.8	878	5.2	106	0.6
Oct	18,920	310	1.6	554	2.9	1,055	5.6	109	0.6	2,478	13.1	897	4.7	96	0.5
Nov	19,116	288	1.5	527	2.8	1,461	7.6	103	0.5	2,251	11.8	823	4.3	105	0.5
Dec	18,525	315	1.7	621	3.4	2,763	14.9	114	0.6	2,473	13.3	743	4.0	87	0.5
Total	206,936	3,351	1.6	6,340	3.1	18,098	8.7	1,497	0.7	28,726	13.9	9,852	4.8	1,123	0.5

Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

High

### Notes:

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

Low

Table 3.5. Collisions in Indiana by day, hour, and collision circumstance, 2022

		All collisions	Alcohol-	-impaired	Aggress	ive driving	Speed	-related	Disrega	rd signal	Hit-a	nd-run		acted— type		acted— phone
Day	Time	Total	Count	As % of day/time total	Count	As % of day/time total	Count	As % of day/time total	Count	As % of day/time total	Count	As % of day/time total	Count	As % of day/time total	Count	As % of day/time total
	Midnight-5:59 a.m.	3,924	373	9.5	143	3.6	561	14.3	24	0.6	1,149	29.3	144	3.7	27	0.7
Sun	6–11:59 a.m.	4,193	55	1.3	129	3.1	521	12.4	43	1.0	637	15.2	188	4.5	20	0.5
Juli	Noon-5:59 p.m.	7,950	96	1.2	264	3.3	660	8.3	70	0.9	1,143	14.4	387	4.9	48	0.6
	6 p.m.–11:59 p.m.	5,334	180	3.4	146	2.7	444	8.3	44	0.8	978	18.3	244	4.6	41	0.8
	Midnight-5:59 a.m.	2,747	75	2.7	72	2.6	263	9.6	9	0.3	486	17.7	102	3.7	14	0.5
Mon	6–11:59 a.m.	8,774	31	0.4	250	2.8	797	9.1	82	0.9	924	10.5	387	4.4	35	0.4
IVION	Noon-5:59 p.m.	12,113	66	0.5	378	3.1	729	6.0	86	0.7	1,437	11.9	680	5.6	60	0.5
	6 p.m.–11:59 p.m.	5,423	127	2.3	166	3.1	419	7.7	39	0.7	900	16.6	240	4.4	44	0.8
	Midnight-5:59 a.m.	2,755	72	2.6	72	2.6	226	8.2	7	0.3	424	15.4	119	4.3	19	0.7
_	6–11:59 a.m.	8,939	40	0.4	237	2.7	533	6.0	76	0.9	940	10.5	383	4.3	34	0.4
Tue	Noon-5:59 p.m.	12,919	61	0.5	400	3.1	594	4.6	87	0.7	1,576	12.2	737	5.7	88	0.7
	6 p.m.–11:59 p.m.	5,720	143	2.5	167	2.9	396	6.9	54	0.9	909	15.9	270	4.7	37	0.6
	Midnight-5:59 a.m.	2,624	60	2.3	74	2.8	252	9.6	7	0.3	426	16.2	98	3.7	15	0.6
	6–11:59 a.m.	8,873	28	0.3	229	2.6	514	5.8	64	0.7	953	10.7	423	4.8	42	0.5
Wed	Noon-5:59 p.m.	13,077	70	0.5	419	3.2	749	5.7	87	0.7	1,589	12.2	698	5.3	62	0.5
	6 p.m.–11:59 p.m.	5,958	167	2.8	187	3.1	496	8.3	40	0.7	972	16.3	279	4.7	40	0.7
	Midnight-5:59 a.m.	3,015	89	3.0	77	2.6	418	13.9	9	0.3	479	15.9	132	4.4	21	0.7
	6–11:59 a.m.	8,731	32	0.4	226	2.6	633	7.3	63	0.7	944	10.8	395	4.5	30	0.3
Thu	Noon-5:59 p.m.	13,602	76	0.6	474	3.5	1,063	7.8	100	0.7	1,635	12.0	727	5.3	53	0.4
	6 p.m.–11:59 p.m.	6,532	158	2.4	185	2.8	768	11.8	39	0.6	1,032	15.8	282	4.3	38	0.6
	Midnight-5:59 a.m.	3,386	123	3.6	108	3.2	593	17.5	7	0.2	577	17.0	118	3.5	21	0.6
Fri	6–11:59 a.m.	9,722	42	0.4	311	3.2	1,269	13.1	76	0.8	996	10.2	412	4.2	48	0.5
Fri	Noon-5:59 p.m.	14,756	115	0.8	457	3.1	1,192	8.1	109	0.7	1,744	11.8	774	5.2	65	0.4
	6 p.m.–11:59 p.m.	7,846	254	3.2	263	3.4	738	9.4	57	0.7	1,343	17.1	363	4.6	49	0.6
	Midnight-5:59 a.m.	3,757	333	8.9	107	2.8	538	14.3	23	0.6	956	25.4	150	4.0	33	0.9
C-1	6-11:59 a.m.	6,609	52	8.0	203	3.1	945	14.3	49	0.7	807	12.2	315	4.8	42	0.6
Sat	Noon-5:59 p.m.	10,286	118	1.1	338	3.3	904	8.8	80	0.8	1,411	13.7	488	4.7	46	0.4
	6 p.m.–11:59 p.m.	7,371	315	4.3	258	3.5	883	12.0	66	0.9	1,359	18.4	317	4.3	51	0.7
Sun	(Total)	21,401	704	3.3	682	3.2	2,186	10.2	181	0.8	3,907	18.3	963	4.5	136	0.6
Mon	(Total)	29,057	299	1.0	866	3.0	2,208	7.6	216	0.7	3.747	12.9	1.409	4.8	153	0.5
Tue	(Total)	30,333	316	1.0	876	2.9	1,749	5.8	224		3,849	12.7	1,509	5.0	178	0.6
Wed	(Total)	30,532	325	1.1	909	3.0	2,011	6.6	198	0.6	3,940	12.9	1,498	4.9	159	0.5
Thu	(Total)	31,880	355	1.1	962	3.0	2,882	9.0	211	0.7	4,090	12.8	1,536	4.8	142	
Fri	(Total)	35,710	534	1.5	1,139	3.2	3,792	10.6	249	0.7	4,660	13.0	1,667	4.7	183	0.5
Sat	(Total)	28,023	818	2.9	906	3.2	3,270	11.7	218	0.8	4,533	16.2	1,270	4.5	172	0.6
	, , ,	206.936	3,351	1.6	6,340	3.1	18,098	8.7	1.497	0.7	28,726	13.9	9.852	4.8	1,123	0.5

High

Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

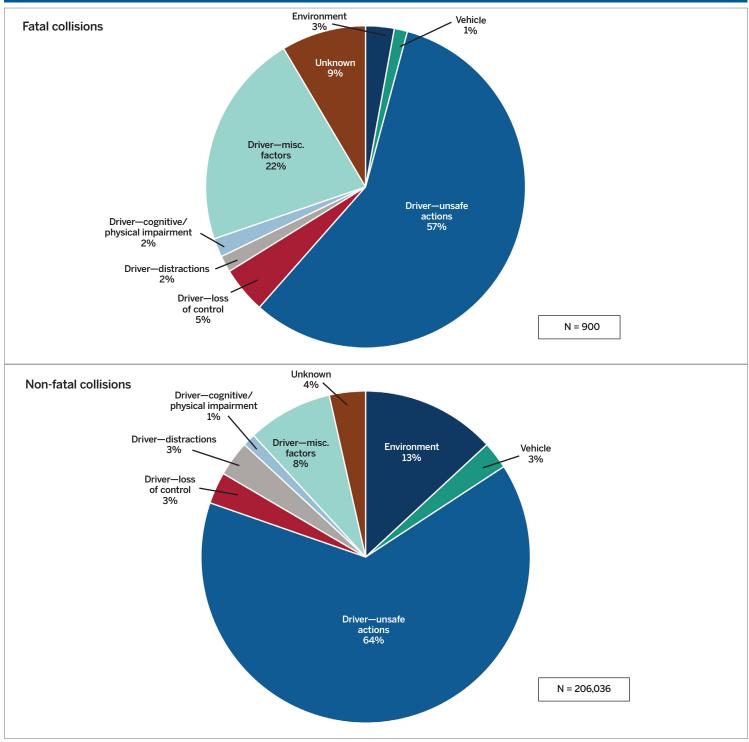
- 1) See glossary for definitions of alcohol-impaired, aggressive driving, speed-related, disregard signal, hit-and-run, distracted—any type, and distracted—cell phone collisions.
  2) Total daily counts exclude collisions with invalid time reported.
  3) Color scales are applied within collision-type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

Table 3.6. Collisions in Indiana by primary factor and collision severity, 2022

		Collision	s, by severity		Fatal collisions
Primary factor	Total	Fatal	Non-fatal	Property damage	per 1,000 collisions
Driver: Unsafe actions	133,315	516	19,837	112,962	3.9
Failure to yield right of way	33,402	110	7,401	25,891	3.3
Following too closely	31,955	19	4,110	27,826	0.6
Unsafe backing	16,311	4	236	16,071	0.2
Unsafe lane movement	12,316	39	1,143	11,134	3.2
Improper turning	8,302	4	634	7,664	0.5
Disregard signal/regulatory sign	7,989	60	2,562	5,367	7.5
Speed too fast for weather conditions	7,891	20	1,075	6,796	2.5
Improper lane usage	5,021	8	403	4,610	1.6
Unsafe speed	4,795	125	1,311	3,359	26.1
Left of center	2,837	100	690	2,047	35.2
Improper passing	2,245	14	224	2,007	6.2
Wrong way on one-way	251	13	48	190	51.8
Driver: Loss of control	6,415	42	1,250	5,123	6.5
Overcorrecting/oversteering	3,250	21	615	2,614	6.5
Ran off road	3,165	21	635	2,509	6.6
Driver: Distractions	7,121	15	1,205	5,901	2.1
Unspecified distraction	6,535	12	1,108	5,415	1.8
Cell phone/other electronic device	586	3	97	486	5.1
Driver: Cognitive/physical impairment	2,599	17	832	1,750	6.5
Driver asleep or fatigued	1,807	4	478	1,325	2.2
Driver illness	790	13	353	424	16.5
Alcoholic beverages	2	0	1	1	0.0
Driver: Miscellaneous factors	17,412	195	2,729	14,488	11.2
Other—unspecified	16,739	106	2,286	14,347	6.3
Influenced by pedestrian action	673	89	443	141	132.2
Driver factors (all)	166,862	785	25,853	140,224	4.7
Environmental factors	27,141	26	1,522	25,593	1.0
Vehicle factors	5,531	12	636	4,883	2.2
Unknown	7,402	77	1,207	6,118	10.4
All collisions	206,936	900	29,218	176,818	4.3

 $Note: Fatal\ collision\ rate\ is\ calculated\ per\ 1,000\ total\ collisions\ attributed\ to\ each\ primary\ collision\ factor.$ 

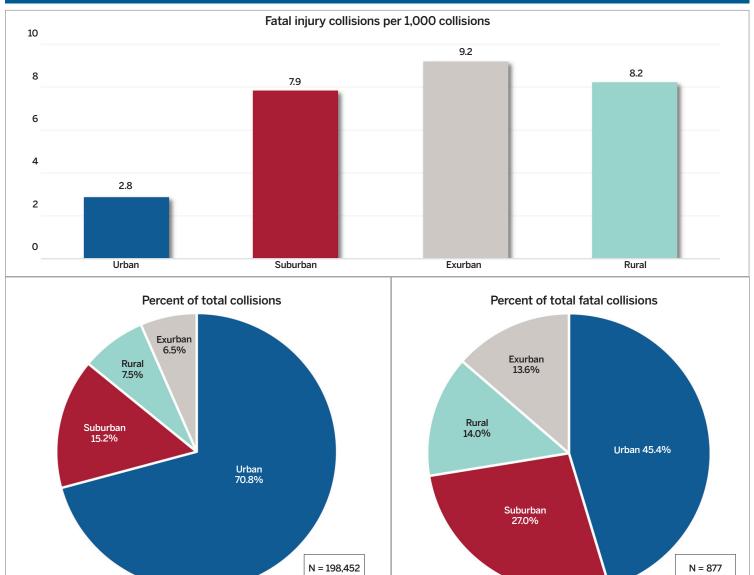
Figure 3.6. Collisions in Indiana by primary factor and severity, 2022



### Notes:

- See Table 3.6 for definitions of specific factor categories related to driver actions.
   Non-fatal collisions include collisions classified as non-fatal and property damage for collision severity.
- Limited to collisions for which the primary factor is known.

Figure 3.7. Fatal injury rates and distribution of collisions in Indiana by census locale, 2022



Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023; and U.S. Census Bureau, 2010 TIGER/line shapefile—Urban areas.

### Notes:

- 1) Census locales for traffic collisions are defined as urban, suburban, exurban, or rural. Urban areas are those defined in the 2010 census generally by density and size. Suburban, exurban, and rural areas were created by the research team based on the 2010 urban boundaries. See the Glossary for a complete explanation.
- 2) Includes only collisions where valid census locale was identified.
   3) Fatal injury collision rate is calculated per 1,000 total collisions in each locale type.

Fatal injury collisions per 1,000 collisions 10 7.8 8 7.6 7.4 5.7 6 3.0 Local/city road Interstate State road County road U.S. route Percent of total collisions Percent of fatal collisions County Interstate 11.6% road 11.2% County Interstate 13.4% road 17.3% U.S. route 9.4% U.S. route 15.0% road 14.2% Local/city road 32.9% Local/city State road 21.3% road 53.5% N =172,512 N = 848

Figure 3.8. Fatal injury rates and distribution of collisions in Indiana by road class, 2022

Note: Excludes private drives and unknown road class.

Table 3.7. Collisions in Indiana by severity and road parameter, 2022

		Fatal collisions			
	Total	Fatal	Non-fatal	Property damage	per 1,000 collisions
Total collisions	206,936	900	29,218	176,818	4.3
By junction type					
No junction involved	129,378	614	15,147	113,617	4.7
Four-way intersection	46,981	166	9,411	37,404	3.5
T-intersection	20,786	67	3,451	17,268	3.2
Ramp	3,722	19	470	3,233	5.1
Traffic circle/roundabout	2,451	2	144	2,305	0.8
Interchange	1,740	12	282	1,446	6.9
Y-intersection	877	5	134	738	5.7
Five-point or more	490	2	83	405	4.1
Railroad crossings	472	12	85	375	25.4
Trail crossings	29	1	10	18	34.5
Unknown	10	0	1	9	0.0
By road character					
Straight	58,301	120	8,349	49,832	2.1
Level	47,448	62	6,615	40,771	1.3
Graded	8,559	41	1,306	7,212	4.8
Hillcrest	2,294	17	428	1,849	7.4
Curve	132,130	639	18,343	113,148	4.8
Level	6,856	34	1,010	5,812	5.0
Graded	110,617	528	15,306	94,783	4.8
Hillcrest	14,657	77	2,027	12,553	5.3
Mixed character	3,830	37	699	3,094	9.7
Non-roadway crash	11,941	95	1,764	10,082	8.0
Unknown	734	9	63	662	12.3
Roadway surface type					
Asphalt	181,441	789	25,934	154,718	4.3
Concrete	22,563	92	3,033	19,438	4.1
Gravel	2,092	6	166	1,920	2.9
Other	757	13	80	664	17.2
Unknown	83	0	5	78	0.0

- Notes:
  1) Fatal collision rate is calculated per 1,000 total collisions associated with each road parameter.
  2) Mixed roadway character indicates that more than one roadway character response was selected for vehicles in a single collision.

Table 3.8. Collisions in Indiana by severity and manner of collision, 2022

		Collisions	by severity		Fatal collisions
Manner of collision	Total	Fatal	Non-fatal	Property damage	per 1,000 collisions
Total collisions	206,936	900	29,218	176,818	4.3
Rear-end	46,672	96	6,660	39,916	2.1
Right-angle	28,175	166	7,271	20,738	5.9
Ran off road	27,295	283	5,721	21,291	10.4
Same direction sideswipe	25,770	19	1,452	24,299	0.7
Backing	17,282	4	266	17,012	0.2
Collision with deer	15,437	4	298	15,135	0.3
Left turn	11,192	25	2,183	8,984	2.2
Opposite direction sideswipe	4,968	15	479	4,474	3.0
Head-on	4,598	128	1,498	2,972	27.8
Right turn	3,482	4	327	3,151	1.1
Collision with object in road	2,884	25	282	2,577	8.7
Left/right turn	2,168	0	258	1,910	0.0
Non-collision	1,529	21	326	1,182	13.7
Collision with animal—other	1,292	1	59	1,232	0.8
Rear to rear	751	0	53	698	0.0
Other	11,972	100	1,851	10,021	8.4
Unknown	1,469	9	234	1,226	6.1

Note: Fatal collision rate is calculated per 1,000 total collisions attributed to each manner of collision.

Table 3.9. Collisions in Indiana by severity and traffic control type, 2022

		Collision	s by severity		Fatal collisions
Traffic control type	Total	Fatal	Non-fatal	Property damage	per 1,000 collisions
Total collisions	206,936	900	29,218	176,818	4.3
Traffic control signal	15,061	13	2,730	12,318	0.9
Lane control	6,997	21	1,043	5,933	3.0
Stop sign	5,742	2	1,149	4,591	0.3
Yield sign	709	1	55	653	1.4
Roundabout intersection	243	1	18	224	4.1
Other regulatory sign/marking	188	1	44	143	5.3
No passing zone	121	3	18	100	24.8
Flashing overhead beacon	63	1	5	57	15.9
Person directing traffic	48	0	8	40	0.0
Railroad crossing	28	1	2	25	35.7
Other	129	1	12	116	7.8
None	26,037	38	2,839	23,160	1.5
Unknown	151,570	817	21,295	129,458	5.4

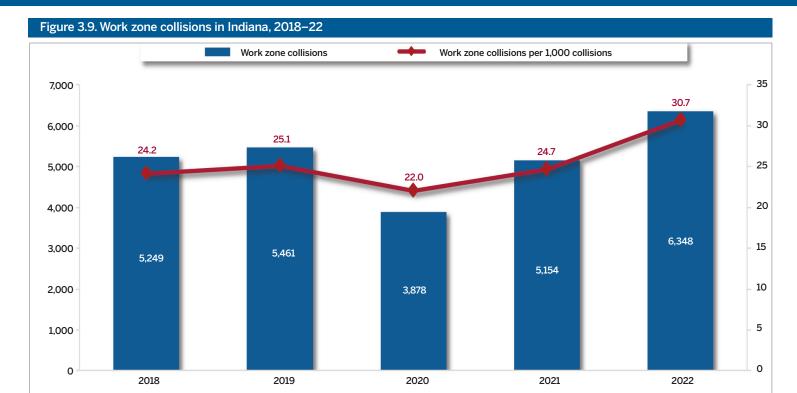
Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

Note: Fatal collision rate is calculated per 1,000 total collisions associated with each traffic control type.

Table 3.10. Collisions in Indiana by severity and environmental condition, 2022

		Collision	s by severity		Fatal collisions
	Total	Fatal	Non-fatal	Property damage	per 1,000 collisions
All collisions	206,936	900	29,218	176,818	4.3
By light conditions					
Daylight	135,771	447	19,720	115,604	3.3
Dark—not lighted	30,413	270	3,781	26,362	8.9
Dark—lighted	28,946	137	4,257	24,552	4.7
Dawn/dusk	10,380	42	1,437	8,901	4.0
Unknown	1,426	4	23	1,399	2.8
By weather conditions					
Clear	141,534	661	20,355	120,518	4.7
Cloudy	33,598	146	4,682	28,770	4.3
Rain	17,581	62	2,641	14,878	3.5
Snow	8,810	17	874	7,919	1.9
Sleet/hail/freezing rain	2,294	5	291	1,998	2.2
Blowing sand/soil/snow	1,732	6	181	1,545	3.5
Fog/smoke/smog	896	2	144	750	2.2
Severe cross wind	376	1	49	326	2.7
Unknown	115	0	1	114	0.0
By road surface conditions					
Dry	160,025	758	23,048	136,219	4.7
Wet	28,775	103	4,276	24,396	3.6
Snow/slush	9,229	14	830	8,385	1.5
Ice	7,595	19	871	6,705	2.5
Water—standing or moving	669	4	84	581	6.0
Loose material on road	413	1	96	316	2.4
Muddy	113	1	12	100	8.8
Unknown	117	0	1	116	0.0

Note: Fatal collision rate is calculated per 1,000 total collisions associated with each environmental condition.





# MOTORCYCLES

LONG VIEWOL

# **MOTORCYCLES, 2022**

The number of motorcycle-involved collisions increased slightly from 2,881 in 2021 to 2,885 and a five-year high in 2022 (Table 4.1). In each of the last five years, there were more multiple-vehicle (MV) motorcycle-involved collisions than single-vehicle (SV) collisions (Figure 4.1). The number and proportion of fatal single-vehicle collisions decreased from 48 and 4.2% in 2021 to 42 and 3.6% in 2022. While fatal multiple-vehicle collisions decreased slightly from 85 in 2021 to 82 in 2022, the proportion of fatal crashes was about the same at slightly less than 5%.

Similar to the number of motorcycles involved in collisions, the number of motorcyclists involved in collisions also increased from 2021 to 2022, from 3,024 to 3,102 (Table 4.2). Among motorcyclists, there were 123 fatalities and 2,106 individuals with non-fatal injuries in 2022. Fatalities decreased 6% and non-fatal injuries increased by 5% from 2021. Seventy-two percent of motorcycle riders involved in collisions were either killed or injured. Motorcyclists accounted for almost 13% of all traffic fatalities in 2022 (Figure 4.2)

# Time, day of week, and month

In 2022, the counts of motorcycle collisions were highest between the 2 p.m. and 7 p.m. hours, peaking during the 4 p.m. hour. The proportion of motorcycle collisions resulting in fatal and incapacitating injuries was highest in the 2 a.m., 9 a.m., and 9 p.m. hours (Figure 4.3). Generally, motorcycle collisions made up the biggest proportion of all collisions during the evening hours—6 p.m. to 10 p.m.—and declined generally during the early morning hours of midnight to 8 a.m. (Table 4.3). Motorcycles made up the smallest proportion of all collisions—less than 1%—during the 7 a.m. to 10 a.m. hours. The proportion of motorcycle collisions to all collisions was highest on Saturdays and Sundays, although the number of motorcycle collisions was highest on Fridays and Saturdays (not shown).

Between 2018 and 2022, total collisions of all vehicles were most frequent during the late fall and winter months of October to January, and in May. In contrast, motorcycle-specific collisions during this same period were highest in the spring and summer months, May to August (Table 4.4). Motorcycle collisions in 2022 followed this general trend, with the highest number of collisions occurring in May through September. June and July had the highest numbers of motorcycle collisions with 487 and 441, respectively, and the highest proportion of fatal or incapacitating injuries at 38% and 39%, respectively (Figure 4.4). While not one of the highest months for number of collisions, April also had a high proportion of motorcycle collisions with fatal and incapacitating injuries at 37%.

### Vehicle type

In 2022, 79% of motorcycle operators and passengers involved in collisions were on motorcycles, with the remaining 21% being on other two-or-three-wheeled vehicles (calculated from Table 4.5). The number of motorcyclists in collisions increased by 10% from 2021 to 2022. The number of motorcyclists in collisions involving mopeds increased more dramatically, by 339% from 2021 to 2022. The number of motorcyclists in collisions involving Class A motor-driven cycles, Class B motor-driven cycles, and motorized bicycles decreased from 2021 to 2022.

Fatalities on motorcycles increased slightly from 105 in 2021 to 107 in 2022. Non-fatal injuries on motorcycles increased 12% from 1,497 in 2021 to 1,676 in 2022. Fatalities and non-fatal injuries to moped operators and passengers increased by 400% and 336%, respectively, from 2021 to

2022. Fatalities and injuries in collisions on Class A motor-driven cycles, Class B motor-driven cycles, and motorized bikes decreased during this period.

# **Alcohol impairment**

Among crashes in 2022 that resulted in fatal and incapacitating injuries and had operators with reported blood alcohol content (BAC) results, 72% of motorcycle operators in single-vehicle crashes and 55% of motorcycle operators involved in multiple-vehicle crashes were impaired with a BAC of 0.08 g/dL or more. Motorcycle operators involved in fatal and incapacitating crashes with reported BAC results were slightly more likely than passenger vehicle drivers to be impaired (Table 4.6).

### Helmet use

Helmet use generally is associated with lower injury and fatality rates among motorcyclists in collisions. Among motorcyclists in collisions, 37% who were not wearing helmets either died or had incapacitating injuries. Among motorcyclists who were wearing helmets, 35% died or had incapacitating injuries (Figure 4.5). The rate of fatal and incapacitating injuries was greater for motorcyclists who were not wearing helmets for all age groups except those who were younger than 21 years old and those who were ages 65 and older.

Over the last five years, male motorcyclists had higher rates of helmet use than their female counterparts in all years except 2020 (Table 4.7). The pattern was not as consistent for motorcyclists experiencing fatal or incapacitating injuries. In 2020 and 2022, a higher percentage of females who died or experienced incapacitating injuries were wearing helmets than males with similar injuries. More specifically, in 2022, 34% of female and 31% of male motorcyclists who sustained fatal or incapacitating injuries were wearing helmets.

In 2022, male motorcyclists in the 45–54 age group and female motorcyclists in the 35–44 age group had the lowest rates of helmet use in all collisions with 22% and 24%, respectively. The lowest rates of helmet use among those who sustained fatal or incapacitating injuries were females in the 15–20 age group and the 35–44 age group as well as male motorcyclists in the 55–64 and the 45–54 age groups.

In 2022, motorcyclists involved in collisions in rural, suburban, and exurban areas had higher rates of helmet use than motorcyclists in urban areas (Figure 4.6). Motorcyclists who were killed in suburban collisions had a lower rate of helmet use than motorcyclists in urban, exurban, and rural areas.

## **Collision characteristics**

Motorcycle collision injury rates vary depending on light, weather, and road conditions at the time of a crash. In 2022, motorcycle collisions occurred predominantly during daylight hours, in clear weather, on curved roads, and at locations that were not intersections (Table 4.8 and Figure 4.7). The probability of a fatal motorcycle collision was greatest in dark and unlit conditions, during extreme weather, in collisions when roads were identified with mixed character or as non-roadways, and at interchanges/ramps. While most motorcycle collisions occurred on local/city roads, only 34% of fatal motorcycle collisions occurred there (Figure 4.8).

Table 4.1. Motorcycle registrations and motorcyclist fatalities and injuries in collisions in Indiana, 2018–22

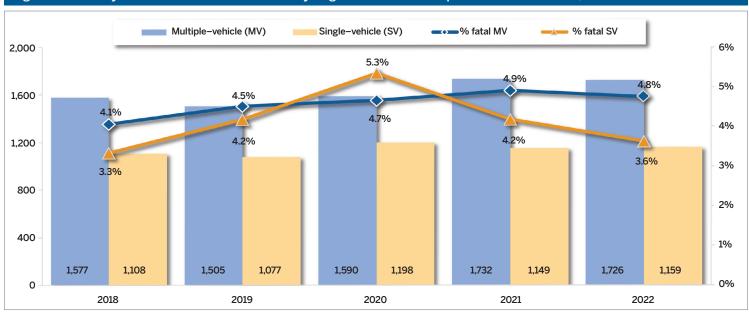
All makemorphisms	2010	2010	2020	2021	2022	Annual rate of change		
All motorcyclists	2018	2019	2020	2021	2022	2021–22	2018-22	
Motorcycle registrations	230,107	228,713	234,014	240,533	231,298	-3.8%	0.1%	
Collisions	2,685	2,582	2,788	2,881	2,885	0.1%	1.8%	
Fatal collisions	101	113	138	133	124	-6.8%	5.3%	
Fatalities	112	112	142	131	123	-6.1%	2.4%	
Non-fatal injuries	1,932	1,823	1,984	2,003	2,106	5.1%	2.2%	
Per 100,000 motorcycle registrations								
Collisions	1,166.8	1,128.9	1,191.4	1,197.8	1,247.3	4.1%	1.7%	
Fatal collisions	43.9	49.4	59.0	55.3	53.6	-3.0%	5.1%	
Fatalities	48.7	49.0	60.7	54.5	53.2	-2.4%	2.2%	
Non-fatal injuries	839.6	797.1	847.8	832.7	910.5	9.3%	2.0%	

Sources: Analysis provided by the Indiana University Public Policy Institute using data from: Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023; and Indiana Bureau of Motor Vehicles, Registered vehicles, downloaded March 22, 2023.

### Notes

- 1) Motorcycles include motorcycles, Class A and Class B motor-driven cycles, mopeds, and motorized bicycles. See glossary for unit type definitions.
- 2) Non-fatal injuries include individuals with at least one incapacitating, non-incapacitating, or other injury.

Figure 4.1. Motorcycle-involved collisions in Indiana by single-vehicle and multiple-vehicle involvement, 2018-22



Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

Note: Motorcycles include motorcycles, motor-driven cycles—Class A and Class B, mopeds, and motorized bicycles. See glossary for unit type definitions.

Table 4.2. Motorcyclists	Table 4.2. Motorcyclists in collisions in Indiana by injury status, 2018–22										
All materialists	2018	2019	2020	2021	2022	Annual rate of change					
All motorcyclists	2016	2019	2020	2021	2022	2021–22	2018-22				
All motorcyclists	2,876	2,705	2,965	3,024	3,102	2.6%	1.9%				
Fatal	112	112	142	131	123	-6.1%	2.4%				
Non-fatal injuries	1,932	1,823	1,984	2,003	2,106	5.1%	2.2%				
Not injured	832	770	839	890	873	-1.9%	1.2%				
Fatality and injury rates											
% fatal	3.9%	4.1%	4.8%	4.3%	4.0%						
% non-fatal injuries	67.2%	67.4%	66.9%	66.2%	67.9%						

Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

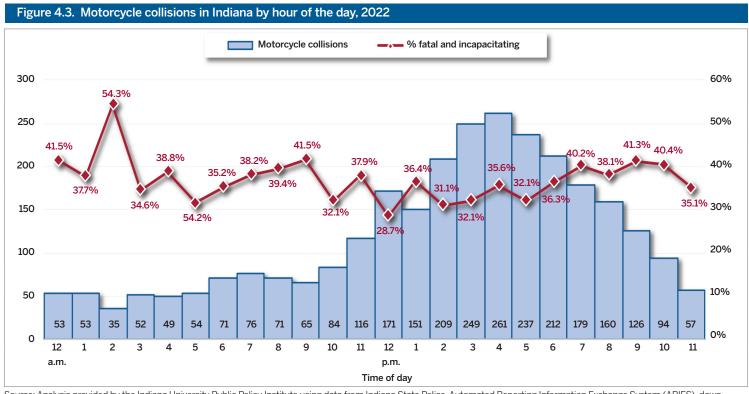
### Notes

- 1) Motorcyclists include operators and passengers on motorcycles, Class A and Class B motor-driven cycles, mopeds, and motorized bicycles. See glossary for unit type definitions.
- 2) Non-fatal injuries include individuals with at least one injury classified as incapacitating, non-incapacitating, possible, refused [treatment], not reported, or unknown.
- 3) Not injured includes all individuals involved in collisions reported as null values in the injury status code field. Reporting officers are instructed to include all drivers in ARIES but to include passengers in the crash report only if an injury occurs. Therefore, not injured counts of passengers should be interpreted with caution.

Motorcycle fatalities % of total fatalities 15.8% 150 16% 14.6% 13.9% 14% 12.8% 12.7% 125 12% 100 10% 142 75 8% 131 123 6% 112 112 50 4% 25 2% 0 0% 2018 2019 2020 2021 2022

Figure 4.2. Motorcycle fatalities as a percent of total traffic fatalities in Indiana, 2018–22

Note: Motorcycles include motorcycles, Class A and Class B motor-driven cycles, mopeds, and motorized bicycles. See glossary for unit type definitions.



Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

### Notes:

- 1) Motorcycles include motorcycles, Class A and Class B motor-driven cycles, mopeds, and motorized bicycles. See glossary for unit type definitions.
- 2) Excludes collisions where hour or injury status was unknown or not reported.

Table 4.3. Motorcycle collisions as a percent of all Indiana collisions by time of day and day of week, 2022

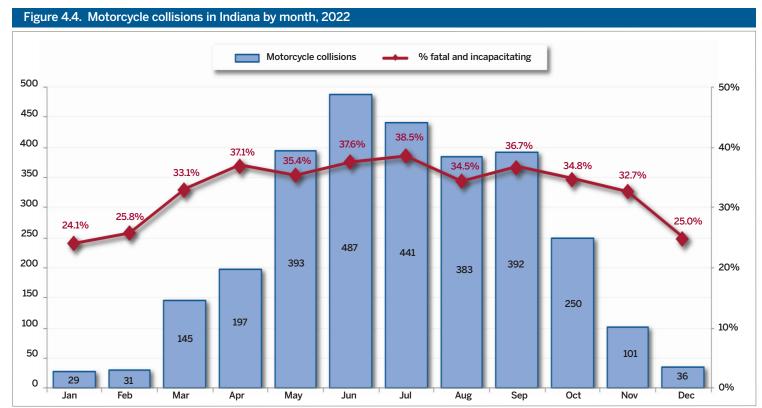
Time	Sun	Mon	Tue	Wed	Thu	Fri	Sat	% motorcycle by hour
12 a.m.	2.2%	0.6%	0.5%	2.1%	1.8%	0.8%	2.1%	1.6%
1 a.m.	1.1%	0.8%	0.6%	2.9%		1.2%	2.5%	1.5%
2 a.m.	1.4%	0.9%	0.6%	1.0%	1.6%	1.1%	1.2%	1.2%
3 a.m.	1.6%	1.5%		2.5%	2.0%	0.6%		1.5%
4 a.m.	0.8%	1.8%	0.7%	1.2%	1.8%	1.5%	1.2%	1.3%
5 a.m.	1.1%	0.4%	1.0%	1.5%	0.8%	1.5%	0.9%	1.1%
6 a.m.	0.8%	0.5%	1.3%	0.9%	0.8%	1.4%	0.9%	1.0%
7 a.m.	0.6%	0.4%	1.0%	0.8%	0.6%	0.6%	1.0%	0.7%
8 a.m.	1.6%	0.5%	0.9%	0.6%	0.9%	0.4%	1.2%	0.7%
9 a.m.	1.3%	0.5%	0.4%	0.9%	0.6%	0.8%		0.8%
10 a.m.	1.6%	0.7%	0.8%	0.6%	0.7%	0.6%	1.6%	0.9%
11 a.m.	2.3%	0.9%	1.0%	0.6%	0.8%	1.1%		1.1%
12 p.m.	1.7%	1.0%		1.4%	0.7%	1.3%	2.1%	1.4%
1 p.m.	2.3%	1.4%	0.9%	0.6%	1.1%	1.3%	1.9%	1.4%
2 p.m.	2.7%	1.6%	1.3%	1.4%	1.4%	0.9%	2.4%	1.6%
3 p.m.	2.2%	1.6%	1.3%	1.0%		1.2%	3.2%	1.6%
4 p.m.	3.2%	1.5%		0.9%	0.9%	1.5%	3.4%	1.6%
5 p.m.	3.3%	0.9%	1.8%	1.0%	1.6%	1.3%	1.7%	1.5%
6 p.m.	2.1%	1.4%	1.5%	1.6%	1.8%	1.7%	2.2%	1.8%
7 p.m.	2.9%	1.6%	2.1%	2.0%	1.9%	1.5%	2.1%	2.0%
8 p.m.	1.6%	2.0%	1.8%	2.7%	2.0%	2.8%	2.0%	2.2%
9 p.m.	1.6%	1.1%	1.9%	0.9%	1.5%	2.4%	3.3%	1.9%
10 p.m.	0.8%	2.4%	1.8%	2.2%	1.8%	2.0%	1.7%	1.8%
11 p.m.	0.7%	0.7%	1.3%	0.6%		2.1%	2.2%	1.4%
% motorcycle by day	2.0%	1.1%	1.2%	1.2%	1.2%	1.3%	2.0%	1.4%

- 1) Motorcycles include motorcycles, motor-driven cycles—Class A and Class B, mopeds, and motorized bicycles. See glossary for unit type definitions.
  2) Includes collisions where valid time was reported.
  3) Color scale applies to all days/times.

Table 4.4. Total and motorcycle collisions in Indiana by month, 2018–22

			Total collisions	S			Me	otorcycle collisio	ons	
Month	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
Jan	20,788	19,459	15,787	15,691	17,922	27	34	37	34	29
Feb	16,180	16,982	16,853	15,930	16,728	49	28	55	21	31
Mar	16,982	15,967	11,815	14,561	15,300	74	85	94	175	145
Apr	15,777	16,389	8,013	16,038	15,487	172	197	136	273	197
May	18,423	18,331	12,251	17,423	18,009	443	322	319	349	393
Jun	17,288	17,687	14,580	17,729	16,681	391	387	456	426	487
Jul	17,270	17,655	15,453	17,538	16,051	432	406	417	421	441
Aug	17,861	18,092	15,430	17,818	17,283	397	426	448	404	383
Sep	17,751	17,526	15,211	17,716	16,914	368	370	375	386	392
Oct	20,315	20,157	17,695	20,484	18,920	218	218	230	225	250
Nov	20,157	20,542	16,899	19,726	19,116	73	55	179	102	101
Dec	18,495	18,818	15,962	18,146	18,525	41	54	42	65	36
Total	217,287	217,605	175,949	208,800	206,936	2,582	2,788	2,881	2,885	2,579
High	Jan	Nov	Oct	Oct	Nov	May	Aug	Jun	Jun	Jun
Low	Apr	Mar	Apr	Mar	Mar	Jan	Feb	Jan	Feb	Jan
	•									
		Low		<		>		High		

1) Motorcycles include motorcycles, Class A and Class B motor-driven cycles, mopeds, and motorized bicycles. See glossary for unit type definitions. 2) Color scales apply to all months for the entire 5-year period, 2018–22.



Note: Motorcycles include motorcycles, Class A and Class B motor-driven cycles, mopeds, and motorized bicycles. See glossary for unit type definitions.

	Count of	individuals	Percent change	2022 injury rate
	2021	2022	2021–22	by unit type
All motorcyclists	3,024	3,102	2.6%	
Motorcycle	2,224	2,450	10.2%	100%
Fatal	105	107	1.9%	4.4%
Injury	1,497	1,676	12.0%	68.4%
Not injured	622	667	7.2%	27.2%
Class B motor-driven cycle	326	168	-48.5%	100%
Fatal	13	4	-69.2%	2.4%
Injury	213	113	-46.9%	67.3%
Not injured	100	51	-49.0%	30.4%
Class A motor-driven cycle	344	216	-37.2%	100%
Fatal	10	7	-30.0%	3.2%
Injury	208	118	-43.3%	54.6%
Not injured	126	91	-27.8%	42.1%
Motorized bicycle	78	40	-48.7%	100%
Fatal	2	0	-100.0%	0.0%
Injury	44	20	-54.5%	50.0%
Not injured	32	20	-37.5%	50.0%
Moped	52	228	338.5%	100%
Fatal	1	5	400.0%	2.2%
Injury	41	179	336.6%	78.5%
Not injured	10	44	340.0%	19.3%

Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

# Notes:

- 1) Motorcyclists include operators and passengers of motorcycles, Class A and Class B motor-driven cycles, motorized bicycles, and mopeds. See glossary for unit type definitions.
- 2) Injury includes incapacitating, non-incapacitating, possible, refused [treatment], not reported, and unknown.

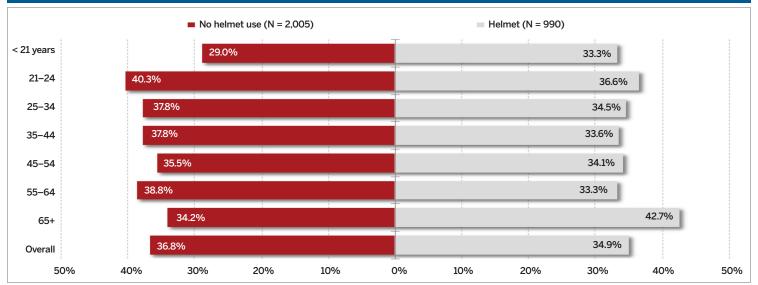
Table 4.6. Blood alcohol content (BAC) of vehicle operators in fatal and incapacitating collisions in Indiana by type of collision and vehicle type, 2022

Callinian to ma	Vehicles involved	BAC range	Fatal	Incomocitation	Onovetovo	All operators, impaired as percent of:		
Collision type	venicies involved	BAC range	ratai	Incapacitating	Operators	Reported results	All	
		Total operators	42	440	482			
		0 g/dL	1	1	2			
	Motorcycles	0.0107	0	5	5	72.0%	3 70%	
	iviolorcycles	0.08-0.14	4	7	11	72.070	3.770	
		0.15+	3	4	7			
Single-vehicle		Not reported	34	423	457		3.7% 4.8%	
Single-verticle		Total operators	356	2,412	2,768			
		0 g/dL	15	32	47		A 80%	
	Passenger vehicles	0.01-0.07	0	8	8	70.6%		
		0.08-0.14	18	39	57	70.6%	4.0%	
		0.15+	11	64	75			
		Not reported	312	2,269	2,581			
		Total operators	85	485	570			
		0 g/dL	4	1	5			
	Motorcycles	0.01-0.07	0	0	0	54.5%	1 104	
	Wiotorcycles	0.08-0.14	2	1	3	34.5%	1.170	
		0.15+	3	0	3			
Multi-vehicle		Not reported	76	483	559			
wuiti-veriicie		Total operators	772	11,848	12,620			
		0 g/dL	30	50	80			
	Passenger vehicles	0.01-0.07	3	14	17	60.9%	1.2%	
	rasseriger verifcles	0.08-0.14	13	50	63	00.5%	1.270	
		0.15+	15	73	88			
		Not reported	711	11,661	12,372			

<sup>1)</sup> Includes only the operators of motorcycles (motorcycles, Class A and Class B motor-driven cycles, mopeds, and motorized bicycles) and passenger vehicles (passenger car, pickup truck, sport utility vehicle, and van). See glossary for motorcycle unit type definitions.

2) BAC 0.08 g/dL or greater is legally impaired. BAC values greater than 0.59g/dL are excluded from the analysis.

Figure 4.5. Fatal and incapacitating injuries as a percent of total motorcyclists in collisions in Indiana by helmet use and age group, 2022



### Notes

- 1) Motorcyclists include operators and passengers of motorcycles, Class A and Class B motor-driven cycles, motorized bicycles, and mopeds. See glossary for unit type definitions.
- 2) Calculations for unhelmeted motorcyclists include individuals coded as no helmet, none, and unknown/null.
- 3) Excludes cases with unknown age.

### Table 4.7. Helmet usage among motorcyclists in collisions in Indiana by age group and gender, 2018–22

### All motorcyclists

	2	018	2	019	2	2020 2021 2			022	
Age group	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
15-20	53.6%	32.6%	60.6%	30.0%	48.4%	27.6%	51.7%	47.6%	57.2%	33.3%
21-24	54.3%	25.0%	51.4%	19.2%	39.8%	31.3%	52.1%	15.0%	49.6%	40.9%
25-34	33.1%	22.6%	38.0%	29.6%	32.2%	40.2%	38.2%	31.3%	38.7%	39.0%
35-44	26.0%	18.1%	25.0%	28.1%	24.9%	28.2%	22.7%	22.0%	25.0%	24.1%
45-54	19.9%	20.9%	28.8%	29.3%	24.6%	28.1%	25.6%	28.3%	22.0%	32.1%
55-64	27.1%	30.8%	26.4%	43.2%	28.3%	39.3%	27.2%	33.3%	24.4%	37.0%
65+	39.3%	40.0%	42.0%	50.0%	42.1%	40.0%	41.8%	28.6%	34.2%	35.3%
All ages	31.7%	24.7%	35.0%	30.9%	31.2%	33.2%	33.5%	28.6%	33.0%	33.1%

### Motorcyclists experiencing fatal or incapacitating injuries

	2018		2019		2020		2021		2022	
Age group	Male	Female								
15-20	45.8%	27.8%	59.7%	40.0%	45.9%	33.3%	56.8%	85.7%	58.7%	14.3%
21-24	44.4%	25.0%	44.0%	21.4%	36.8%	33.3%	57.4%	0.0%	43.7%	70.0%
25-34	31.6%	20.9%	37.1%	34.8%	28.5%	35.1%	39.0%	29.2%	36.3%	38.2%
35-44	18.2%	17.6%	20.6%	21.1%	24.4%		22.7%	22.2%	23.2%	20.0%
45-54	16.3%	14.0%	29.9%	25.9%	18.8%	29.4%	23.0%	27.1%	20.5%	31.0%
55-64	23.0%	43.5%	24.3%	34.8%	24.9%	40.0%	26.7%		20.3%	44.4%
65+	36.0%	30.8%	42.7%	37.5%	43.7%	62.5%	38.5%	28.6%	40.0%	37.5%
All ages	26.7%	22.4%	32.7%	28.9%	28.2%	34.3%	33.2%	27.9%	31.4%	33.8%

Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

### Notes:

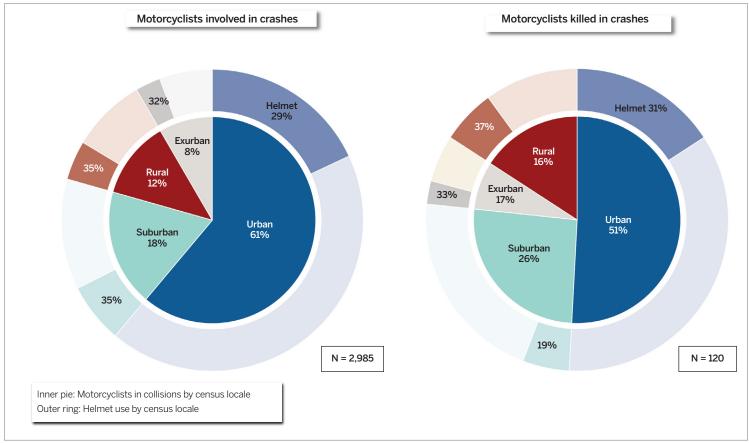
- 1) Motorcyclists include operators and passengers of motorcycles, Class A and Class B motor-driven cycle, motorized bicycles, and mopeds. See glossary for unit type definitions.
- 2) Helmet, no helmet, none, and unknown/null codes are included in the totals for helmet use calculations.
- 3) Data limited to drivers and injured occupants with valid gender and age reported.

Low

- 4) Excludes drivers and injured occupants under 15 years old.
- 5) Color scales apply to both genders and all years for motorcyclists in collisions and motorcyclists experiencing fatal or incapacitating injuries.

High

Figure 4.6. Helmet usage among motorcyclists in collisions in Indiana by injury status and census locale, 2022



Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023; and U.S. Census Bureau, 2010 TIGER/line shapefile—Urban areas.

- 1) Census locales for traffic collisions are defined as urban, suburban, exurban, or rural. Urban areas are those defined in the 2010 census generally by density and size. Suburban, exurban, and rural areas were created by the research team based on the 2010 urban boundaries. See the Glossary for a complete explanation.
- 2) Motorcyclists include operators and passengers of motorcycles, motor-driven cycles—Class A and Class B, motorized bicycles, and mopeds. See glossary for unit type definitions.
- 3) Helmet, no helmet, none, and unknown/null codes are included in the totals for helmet use calculations.
- 4) Excludes cases where locale could not be determined.

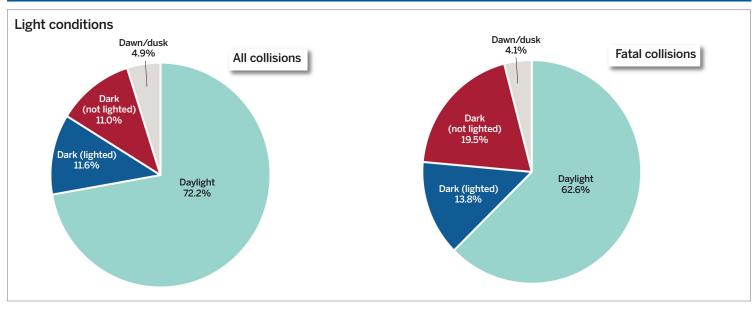
Table 4.8. Characteristics of motorcycle collisions in Indiana by severity, 2022

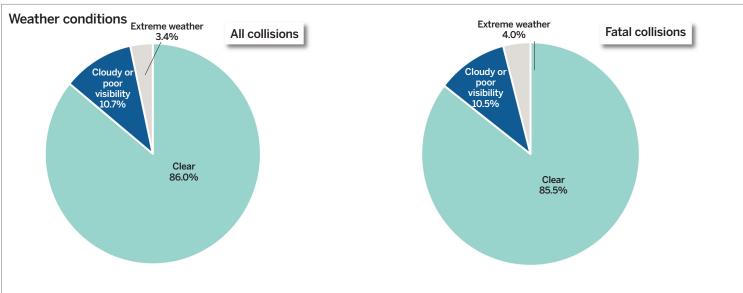
Characteristics		Count	of collisions		Probability of	collision severity
Characteristics	Fatal	Non-fatal	Property damage	Total	Fatal	Non-fatal
Light conditions	123	1,781	972	2,876		
Daylight	77	1,289	711	2,077	3.7%	62.1%
Dark (lighted)	17	203	113	333	5.1%	61.0%
Dark (not lighted)	24	203	98	325	7.4%	62.5%
Dawn/dusk	5	86	50	141	3.5%	61.0%
Weather conditions	124	1,783	977	2,884		
Clear	106	1,534	839	2,479	4.3%	61.9%
Cloudy or poor visibility	13	199	96	308	4.2%	64.6%
Extreme weather	5	50	42	97	5.2%	51.5%
Road junctions	124	1,783	978	2,885		
No junction involved	66	1,048	593	1,707	3.9%	61.4%
Intersections	51	686	367	1,104	4.6%	62.1%
Interchange/ramp	7	49	18	74	9.5%	66.2%
Road character	124	1,782	978	2,884		
Straight (level)	5	289	214	508	1.0%	56.9%
Straight (non-level)	8	176	54	238	3.4%	73.9%
Curved	80	1,073	593	1,746	4.6%	61.5%
Mixed	9	41	21	71	12.7%	57.7%
Non-roadway	22	203	96	321	6.9%	63.2%
Road class	116	1,638	804	2,558		
Interstate	13	83	29	125	10.4%	66.4%
U.S. route	15	156	66	237	6.3%	65.8%
State road	25	297	123	445	5.6%	66.7%
Local/city	40	832	471	1,343	3.0%	62.0%
County road	23	270	115	408	5.6%	66.2%

- 1) Motorcycles include motorcycles, Class A and Class B motor-driven cycles, mopeds, and motorized bicycles. See glossary for unit type definitions.
  2) Excludes collisions for which characteristic was unknown or not reported.
  3) Mixed roadway character indicates more than on roadway character response was selected for vehicles in a single collision.
  4) Selected characteristics are regrouped 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:
  - Five point or more, four-way intersection, T-intersection, traffic circle/roundabout, trail crossing, RR crossing, and Y-intersection. Interchange/ramp includes interchange and ramp.
- Road character:
  - Curves includes curve/grade, curve/hillcrest, and curve/level. Straight (non-level) includes straight/grade and straight/hillcrest.

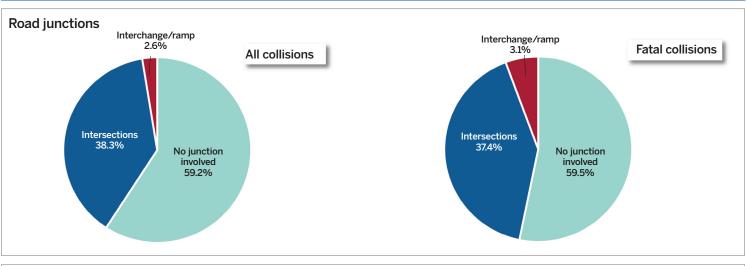
Figure 4.7. Characteristics of motorcycle collisions in Indiana by light and weather condition, 2022

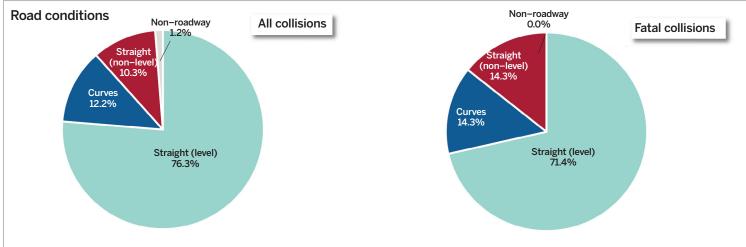


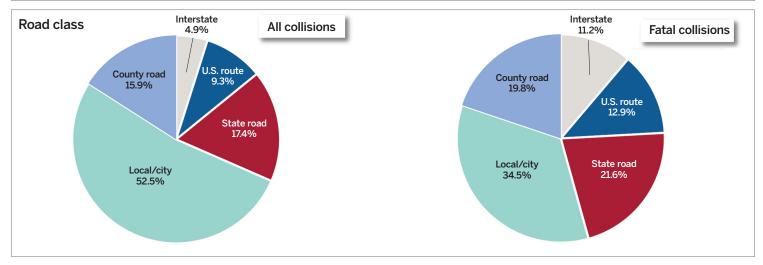


Note: Refer to notes in Table 4.8.

Figure 4.8. Characteristics of motorcycle collisions in Indiana by road parameter, 2022







Note: Refer to notes in Table 4.8.



# IMPAIRED DRIVING

DESTRUCTION OF THE PROPERTY OF

## **IMPAIRED DRIVING, 2022**

In 2022, 72 people died in collisions in which at least one driver was legally impaired by alcohol (i.e., BAC at or above 0.08 g/dL) (Figure 5.1). Of the 3,351 alcohol-impaired collisions in 2022, 70 claimed at least one life (Table 5.1). From 2018 to 2022, the number of fatal collisions involving an alcohol-impaired driver declined 8% annually. In same period, the number of people killed in crashes with an alcohol-impaired driver declined 12% annually. Three-quarters of people killed in alcohol-related collisions in 2022 were male. This proportion is similar to the four previous years (Figure 5.2).

### Blood alcohol and drug testing rates

Indiana law requires police officers offer a portable breath or chemical test to anyone they believe was driving a vehicle involved in an accident that caused a fatality or serious bodily injury. In 2022, 63% of drivers in fatal collisions were tested for alcohol and/or drugs. Only 10% of drivers in crashes that involved incapacitating injuries were tested. Of drivers involved in fatal collisions, those between 25 and 34 years old had the highest rate of testing at 71%, while drivers 75 years and older had the lowest rate at 39% (Table 5.2). Among all drivers tested in 2022, 14% had BAC results in the ARIES database (calculated from Table 5.3).

Testing rates for alcohol impairment also varied by the severity of driver injuries. Generally, surviving drivers were tested more often than those who were killed (Table 5.3). In 2022, 72% of surviving drivers were tested, compared to 49% of those who died. However, drivers who had reported BAC results and did not survive had a higher rate of impairment than drivers who survived. Rates of positive drug test results were lower than for alcohol impairment for both drivers with reported results who survived and drivers who were killed.

### Driver impairment by age and gender

In 2022, 71 drivers in fatal collisions were alcohol impaired. The number of impaired drivers in fatal collisions decreased 29% from 2021 to 2022 and 8% annually from 2018 to 2022. In 2022, drivers who were 25 to 34 years old constituted the largest proportion of all drivers in fatal collisions as well as the largest proportion of impaired drivers in fatal collisions.

Male drivers were far more likely than female drivers to have been involved in fatal collisions, accounting for approximately 3 out of every 4 drivers in fatal crashes in 2022 (Figure 5.3). Among drivers in fatal collisions, 5% of male drivers and 4% of female drivers were impaired.

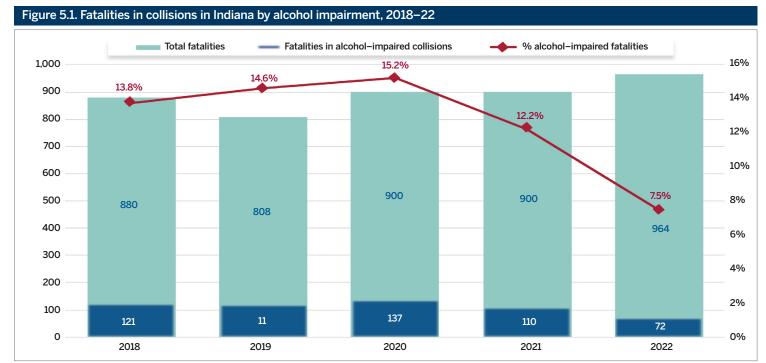
# Impaired driving by month, day of week, and time of day

Alcohol-impaired fatalities and injuries vary by month, day of week, and time of day. For 2018–22, the highest counts and percentages of fatalities in alcohol-impaired collisions occurred in May and June (Figure 5.4). The highest numbers of non-fatal injuries occurred in May, September, and October, while the highest percentages of non-fatal injuries occurred in March and December.

In 2022, the hourly rates of crashes involving serious injuries and impaired-driving collisions followed a similar pattern, although not as closely as in previous years (Figure 5.5). The most hourly alcoholimpaired crashes as a percentage of all crashes occurred between midnight and 4:59 a.m. on Saturdays and Sundays.

### Impaired driving by locale and road type

The distribution of fatal collisions varied by census locale and by road type. In 2022, more than half of fatal crashes occurred outside urban areas, however, the highest rate of fatal crashes involving an alcoholimpaired driver was in urban areas (Figure 5.6). In 2022, the highest proportions of fatal collisions and fatal collisions involving an impaired driver were on local/city roads (Figure 5.7).



Note: A collision is considered alcohol-impaired when any vehicle driver involved has a BAC test result at or above 0.08 g/dL. BAC results greater than 0.59 g/dL are excluded from the analysis.

able 5.1. Collisions and inju	ries in Indiana involvi	ng alcohol-imp	paired drivers, 2	2018–22				
						Annual rate of change		
	2018	2019	2020	2021	2022	2021–22	2018–22	
ollisions involving an alcohol-impair	red driver							
Total collisions	4,060	3,949	3,845	3,824	3,351	-12.4%	-4.7%	
Fatal	98	116	119	98	70	-28.6%	-8.1%	
Injury	1,072	1,021	987	930	843	-9.4%	-5.8%	
Property damage	2,890	2,812	2,739	2,796	2,438	-12.8%	-4.2%	
dividuals in collisions involving an a	alcohol-impaired driver							
Total individuals	5,888	5,734	5,508	5,725	5,407	-5.6%	-2.1%	
Fatal	121	118	137	110	72	-34.5%	-12.2%	
Injured	1,602	1,530	1,462	1,445	1,270	-12.1%	-5.6%	
Not injured	4,165	4,086	3,909	4,170	4,065	-2.5%	-0.6%	

Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

### Notes:

2) Injured includes injuries coded as incapacitating, non-incapacitating, possible, refused [treatment], not reported, and unknown.

<sup>1)</sup> Impaired drivers are those with a BAC of 0.08 g/dL or greater reported in ARIES. BAC results greater than 0.59 g/dL are excluded from the analysis.

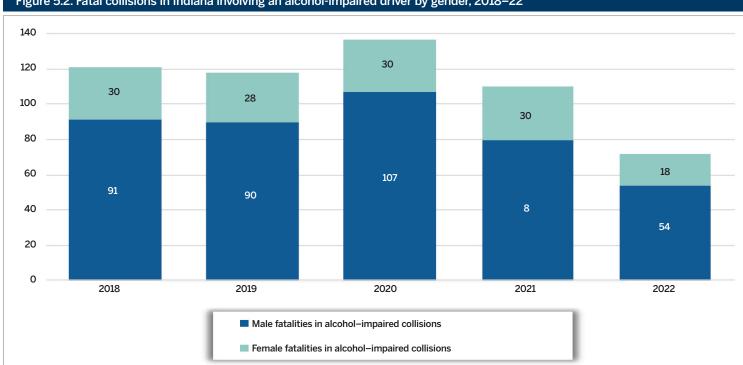


Figure 5.2. Fatal collisions in Indiana involving an alcohol-impaired driver by gender, 2018–22

Note: A collision is considered alcohol-impaired when any vehicle driver involved has a BAC test result at or above 0.08 g/dL. BAC results greater than 0.59 g/dL are excluded from the

Table 5.2. Drivers in collisions in Indiana who were tested for alcohol or o	other substances by age and collision severity, 2022
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			Count o	f drivers			
		Fatal collisions			Incapacitating collisions		
Driver age	Tested	Total	Tested as % total	Tested	Total	Tested as % total	
15–20	67	111	60.4%	153	1,656	9.2%	
21-24	74	115	64.3%	164	1,458	11.2%	
25-34	219	308	71.1%	423	3,502	12.1%	
35-44	159	241	66.0%	342	2,780	12.3%	
45-54	148	228	64.9%	213	2,270	9.4%	
55-64	123	198	62.1%	182	2,041	8.9%	
65-74	77	135	57.0%	66	1,251	5.3%	
75+	31	80	38.8%	33	726	4.5%	
All ages	898	1,416	63.4%	1,576	15,684	10.0%	

Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), down-

- 1) Tested includes drivers for which ARIES indicates an alcohol, drug, or alcohol/drug test was given.
  2) Excludes ages under 15 and over 109 years and cases with unknown or unreported age.

Table 5.3. Drivers in fatal collisions in Indiana by substance test given and reported results, 2018–22

		Su	rvived collis	ion			Ki	lled in collis	ion	
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
Drivers in fatal collisions	664	620	646	728	796	571	560	600	612	664
By test type given										
Alcohol and/or drug	451	447	469	518	576	287	286	284	327	322
None	5	18	37	87	140	9	17	54	123	303
Refused	2	0	5	2	4	0	0	0	0	1
Not reported	206	155	135	121	76	275	257	262	162	38
Tested, as a % of all	67.9%	72.1%	72.6%	71.2%	72.4%	50.3%	51.1%	47.3%	53.4%	48.5%
By BAC test result										
Alcohol-impaired	30	32	38	21	24	70	86	83	79	47
Not impaired	308	311	270	196	33	135	124	117	80	22
No result reported	326	277	338	511	739	366	350	400	453	595
By drug test result										
Positive	75	76	90	103	44	98	123	113	130	65
Negative	198	236	234	239	123	113	122	109	120	57
Pending	9	7	15	10	2	8	2	3	3	4
No result reported	382	301	307	376	627	352	313	375	359	538
Alcohol-impaired, as a % of tested	6.4%	7.2%	8.1%	4.1%	4.2%	24.4%	30.1%	29.2%	24.2%	14.6%
Drug-positive, as a % of tested	16.6%	17.0%	19.2%	19.9%	7.6%	34.1%	43.0%	39.8%	39.8%	20.2%
Alcohol-impaired, as a % of drivers with reported results	8.6%	9.3%	12.3%	9.7%	42.1%	34.1%	41.0%	41.5%	49.7%	68.1%
Drug-positive, as a % of drivers with reported results	27.5%	24.4%	27.8%	30.1%	26.3%	46.4%	50.2%	50.9%	52.0%	53.3%

- 1) Alcohol-impaired: BAC of 0.08 g/dL or higher. BAC results greater than 0.59 g/dL are excluded from the analysis.
  2) Drug-positive: Reported as positive under drug test results in ARIES. ARIES does not currently specify drug type(s).
  3) Alcohol-impaired and drug-positive are not mutually exclusive. Drivers can be one, the other, or both.

Table 5.4. Drivers in fatal collisions in Indiana by	alcohol impairment and driver age, 2018–22
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		Cou	int of drivers invo	lved		Annual rat	e of change	ange % of total	
Driver age	2018	2019	2020	2021	2022	2021–22	2018-22	2022	
All drivers	1,233	1,176	1,232	1,304	1,416	8.6%	3.5%	100%	
15-20	126	94	113	122	111	-9.0%	-3.1%	7.8%	
21-24	91	97	101	115	115	0.0%	6.0%	8.1%	
25-34	240	239	266	285	308	8.1%	6.4%	21.8%	
35-44	204	198	196	237	241	1.7%	4.3%	17.0%	
45-54	204	191	208	189	228	20.6%	2.8%	16.1%	
55-64	184	174	182	187	198	5.9%	1.9%	14.0%	
65-74	116	104	108	108	135	25.0%	3.9%	9.5%	
75+	68	79	58	61	80	31.1%	4.1%	5.6%	
Impaired drivers	100	118	121	100	71	-29.0%	-8.2%	100%	
15-20	5	3	5	6	2	-66.7%	-20.5%	2.8%	
21-24	8	19	13	10	6	-40.0%	-6.9%	8.5%	
25-34	38	27	31	36	25	-30.6%	-9.9%	35.2%	
35-44	20	24	23	23	14	-39.1%	-8.5%	19.7%	
45-54	17	25	26	14	13	-7.1%	-6.5%	18.3%	
55-64	9	12	17	8	6	-25.0%	-9.6%	8.5%	
65-74	1	8	4	2	4	100.0%	41.4%	5.6%	
75+	2	0	2	1	1	0.0%	-15.9%	1.4%	

Source: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

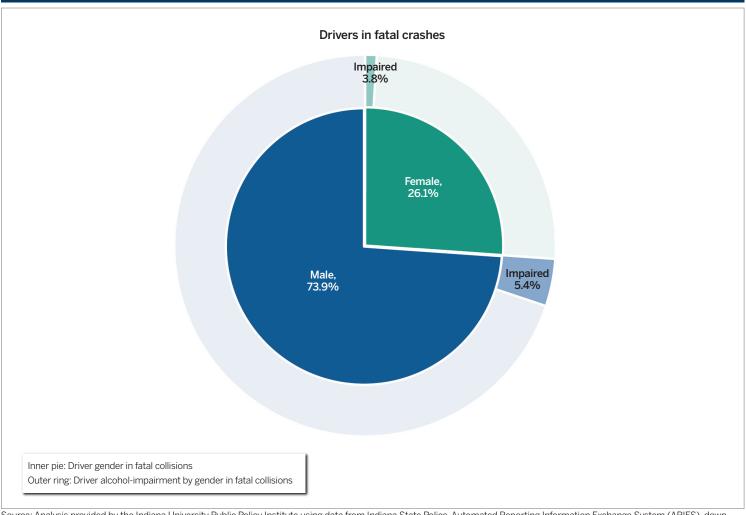
High

### Notes:

- 1) Impaired drivers are those with BAC of 0.08 g/dL or greater reported in ARIES. BAC results greater than 0.59 g/dL are excluded from the analysis. 2) Excludes ages under 15 and over 109 years and cases with unknown or unreported age. 3) Color scale applies to all ages among all drivers and among impaired drivers.

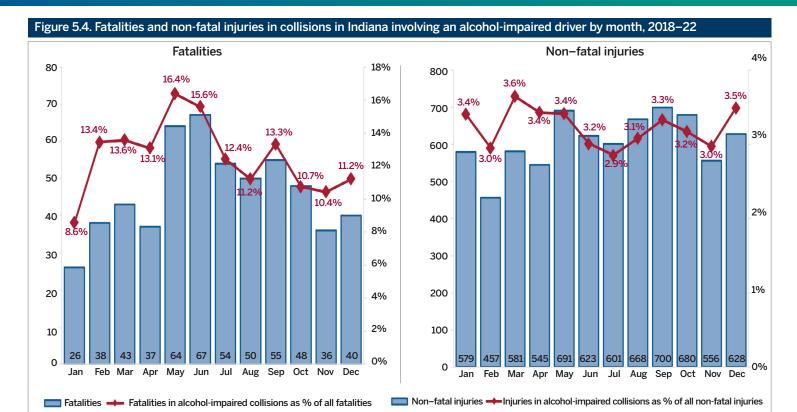
Low

Figure 5.3. Drivers in fatal collisions in Indiana by alcohol impairment and gender, 2022



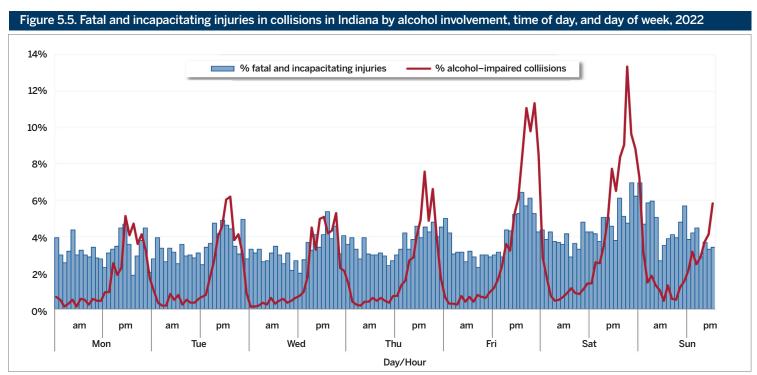
- 1) Impaired drivers are those with a BAC of 0.08 g/dL or greater reported in ARIES. BAC greater than 0.59 g/dL are excluded from the analysis.

  2) The denominator for percent impaired by gender includes drivers in fatal collisions who were tested and shown not to be impaired, drivers who were tested and for whom results were not available, and drivers who were not tested.



### Notes

- 1) Impaired drivers are those with a BAC of 0.08 g/dL or greater reported in ARIES. BAC results greater than 0.59 g/dL are excluded from the analysis.
- 2) Non-fatal injuries include injuries coded as incapacitating, non-incapacitating, possible, refused [treatment], not reported, and unknown.



Source: Analysis provided by the Indiana University Public Policy Institute using data from the Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

- 1) Fatal and incapacitating injury rate is the percentage of all individuals in collisions reported as fatal or incapacitating.
- 2) Alcohol-impaired collision rate is the percentage of all hourly collisions that involved one or more alcohol-impaired drivers.

Figure 5.6. Percent of fatal collisions and total alcohol-impaired collisions in Indiana by census locale, 2018–22

Sources: Analysis provided by the Indiana University Public Policy Institute using data downloaded from the Indiana State Police, Automated Reporting Information Exchange System (ARIES), as of January 25, 2023; and U.S. Census Bureau, 2010 TIGER/line shapefile—Urban areas.

- 1) A collision is considered alcohol-impaired when any vehicle driver involved has a BAC test result at or above 0.08 g/dL. BAC results greater than 0.59 g/dL are excluded from the analysis.
- 2) Census locales for traffic collisions are defined as urban, suburban, exurban, or rural. Urban areas are those defined in the 2010 census generally by density and size. Suburban, exurban, and rural areas were created by the research team based on the 2010 urban boundaries. See the Glossary for a complete explanation.
- 3) Excludes cases where locale could not be determined.

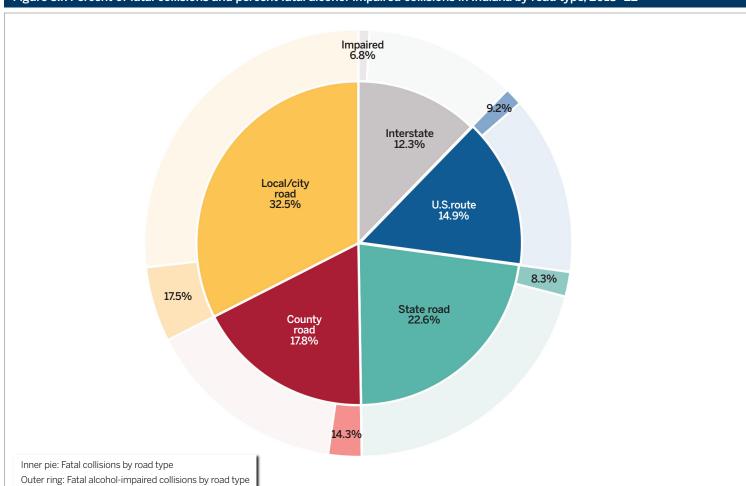


Figure 5.7. Percent of fatal collisions and percent fatal alcohol-impaired collisions in Indiana by road type, 2018–22

- 1) A collision is considered alcohol-impaired when any vehicle driver involved has a BAC test result at or above 0.08 g/dL. BAC results greater than 0.59 g/dL are excluded from the analysis.
- 2) Excludes collisions on private drives and with no valid road class reported.



# SPEED

SHEET VESTIGIT

# **SPEED, 2022**

In 2022, there were 18,098 speed-related collisions, with a rate of 87.5 per 1,000 collisions (Figure 6.1). Speed-related collisions increased by 4% from 2021 and accounted for 9% of all collisions and 28% of fatal collisions (Table 6.1).

Fatal speed-related collisions increased from 228 in 2021 to a five-year high of 253 in 2022, continuing a trend of annual increases in each of the past five years. While total speed-related collisions are down 2% on average annually since 2018, fatal speed-related collisions increased 12% annually during the same period. Additionally, from 2018 to 2022, speed-related collisions consistently accounted for an increasing percentage of total fatal collisions year over year.

In 2022, 58% of speed-related collisions specifically had speed too fast for weather conditions listed as the primary factor or as a contributing factor, whereas 46% of speed-related collisions had unsafe speed listed as a primary or contributing factor (calculated from Table 6.1). Only 1% of speed-related collisions were associated with the issuance of a speed-related citation. Collisions in which the driver was identified as driving too fast for weather conditions increased 22% from 2021, driven primarily by collisions that resulted in only property damage. Total collisions identified as involving unsafe speed decreased by 8% from a five-year high in 2021. However, fatal collisions identified as unsafe speed increased by 9% from 2021 and have risen by 15% annually since 2018.

In 2022, there were 29,376 people involved in speed-related collisions, which represents 8% of individuals involved in all collisions (Table 6.2). Both the number of speed-related fatalities and the proportion of speed-related fatalities to all fatal injuries reached five-year highs in 2022. The rate of fatal injuries per 1,000 people involved in speed-related collisions increased slightly from 9.2 in 2021 to 9.4 in 2022 (Figure 6.2).

### Vehicle type

Similar to 2020 and 2021, 5% of vehicles involved in collisions were classified as speeding in 2022 (Figure 6.3). Motorcycles remained the most likely vehicles to have been speeding at the time of collisions—13% of all motorcycles in crashes in 2022.

Across all vehicle types, occupants involved in speed-related collisions had a higher injury rate per 1,000 occupants than occupants in collisions that were not speed-related at 210 per 1,000 occupants and 119 per 1,000, respectively (Figure 6.4). As in previous years, motorcycle drivers and passengers had the highest rates of injury per 1,000 occupants while speeding when compared to occupants in other vehicle types. Occupants in motorhomes/RVs, buses, and school buses also were considerably more likely to be injured while speeding compared to occupants in these vehicle types that were not speeding.

### Age and gender

From 2018 to 2022, the relative proportion of speed-related crashes to all crashes decreased as driver age increased. Among drivers, young males were most likely to be speeding (Table 6.3). In 2022, 11% of male drivers and 6% of female drivers ages 15 to 20 were speeding at the time of the collision, the highest rates across age groups. In contrast,

only 2% of males and 1% of female drivers ages 75 and older were speeding in collisions, the lowest rates across age groups.

### **Alcohol-impaired**

In 2022, the number of legally impaired drivers—with blood alcohol content of 0.08 g/dL or higher—in vehicles that were speeding fell to 508, a five-year low (Figure 6.5). Three percent of drivers who were speeding were also alcohol impaired. Drivers who were speeding in a collision were three times more likely to be alcohol-impaired than those who were not speeding. Drivers ages 21 to 24 and 25 to 34 who were speeding in collisions had the highest rates of impairment across all age groups at 3.5% and 4.1%, respectively (Table 6.4).

### **Restraint use**

From 2018 to 2022, rates of proper restraint use in speed-related collisions among the injured occupants in passenger vehicles were considerably lower than rates of restraint use among occupants who were injured in non-speed-related collisions (Figure 6.6). In 2022, 31% of vehicle occupants who were killed and 73% who sustained non-fatal injuries in speed-related collisions were wearing proper restraints, both five-year lows.

### Month and time of day

From 2018 to 2022, the highest incidence of speed-related collisions occurred during the winter months—December, January, and February (Table 6.5). In 2022, the fewest number of speed-related collisions occurred in June.

In 2022, the share of collisions that were speed-related generally peaked during late night and early morning hours between 9:00 p.m. and 5:59 a.m. (Table 6.6). The share of crashes that were speed-related was lowest during the 1:00 p.m. hour and generally increased until the end of the day.

By day of the week, the likelihood of speed-related collisions was highest on Fridays, Saturdays, and Sundays while speed-related collisions were least likely to occur on Tuesdays. Speed-related collisions were especially likely to occur on Friday mornings between midnight and 5:59 a.m. The highest hourly incidence of speed-related collisions occurred on Thursdays during the 11:00 p.m. to 11:59 p.m. hour while the lowest incidence occurred on Tuesday afternoons between noon and 2:59 p.m.

### Locale and road class

In 2022, the proportion of collisions that were speed-related was higher in non-urban areas than in urban areas (Figure 6.7). However, the proportion of fatal speed-related collisions was highest in urban areas.

Among road types, the share of collisions involving speed was highest on interstate highways (Figure 6.8). Although more than half of collisions in 2022 occurred on local/city roads, this road class had the lowest percentage of speed-related crashes. Fatal collisions that were speed-related most often occurred on county roads, followed closely by interstate highways and local/city roads. State roads had the lowest proportion of speed-related fatal crashes.

Table 6.1. Collisions in Indiana by speed involvement, speed-related criteria, and collision severity, 2018–22

			Count of collision	ıs		Annual rate	e of change
	2018	2019	2020	2021	2022	2021–22	2018-22
Total collisions	217,287	217,287	175,949	208,800	206,936	-0.9%	-1.2%
Fatal	795	747	812	833	900	8.0%	3.1%
Non-fatal	32,412	31,253	26,535	29,831	29,218	-2.1%	-2.6%
Property damage	184,080	185,605	148,602	178,136	176,818	-0.7%	-1.0%
All speed-related collisions	19,624	20,209	15,047	17,475	18,098	3.6%	-2.0%
Fatal	162	190	207	228	253	11.0%	11.8%
Non-fatal	4,187	4,098	3,357	3,877	3,690	-4.8%	-3.1%
Property damage	15,275	15,921	11,483	13,370	14,155	5.9%	-1.9%
Speed-related as % of total	9.0%	9.3%	8.6%	8.4%	8.7%	4.5%	-0.8%
Fatal	20.4%	25.4%	25.5%	27.4%	28.1%	2.7%	8.4%
Non-fatal	12.9%	13.1%	12.7%	13.0%	12.6%	-2.8%	-0.6%
Property damage	8.3%	8.6%	7.7%	7.5%	8.0%	6.7%	-0.9%
Speed too fast for weather conditions	11,478	12,082	6,953	8,547	10,460	22.4%	-2.3%
Fatal	34	29	25	30	34	13.3%	0.0%
Non-fatal	1,866	1,797	1,121	1,369	1,484	8.4%	-5.6%
Property damage	9,578	10,256	5,807	7,148	8,942	25.1%	-1.7%
Unsafe speed	8,048	7,814	7,967	8,922	8,242	-7.6%	0.6%
Fatal	130	162	184	207	226	9.2%	14.8%
Non-fatal	2,252	2,231	2,201	2,547	2,334	-8.4%	0.9%
Property damage	5,666	5,421	5,582	6,168	5,682	-7.9%	0.1%
Speed-related citation	1,780	2,043	1,223	1,121	127	-88.7%	-48.3%
Fatal	12	11	5	6	1	-83.3%	-46.3%
Non-fatal	559	515	352	281	31	-89.0%	-51.5%
Property damage	1,209	1,517	866	834	95	-88.6%	-47.1%

### Notes:

- 1) Collisions are defined as speed-related if either unsafe speed or speed too fast for weather conditions is listed as the primary or a contributing factor of the collision, or if a vehicle driver is issued a speeding citation.
- 2) Speed-related criteria categories are not mutually exclusive. All speed-related collisions may not equal total of individual categories.

Figure 6.1. Speed-related collisions in Indiana, 2018–22 Speed-related collisions Speed-related collisions per 1,000 collisions 25,000 100 92.9 90.3 87.5 85.5 83.7 20,000 75 15,000 50 20,209 10,000 19.624 18,098 17,475 15,047 25 5,000 0 2018 2019 2020 2021 2022

Source: Analysis provided by the Indiana University Public Policy Institute using data from the Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

Note: Collisions are defined as speed-related if either unsafe speed or speed too fast for weather conditions is listed as the primary or a contributing factor of the collision, or if a vehicle driver is issued a speeding citation.

Table 6.2. Individuals in collisions in Indiana by speed involvement and injury status, 2018-22

		Co	ount of individual	S			Annual rate	e of change
Speed involvement/injury status	2018	2019	2020	2021	2022	% 2022 total	2021-22	2018-22
All individuals	352,439	351,117	276,566	343,799	363,734	100.0%	5.8%	0.8%
Speed-related	30,834	31,424	22,972	27,466	29,376	100.0%	7.0%	-1.2%
Fatal	183	213	235	253	277	0.9%	9.5%	10.9%
Non-fatal injury	6,460	6,182	5,151	6,068	5,929	20.2%	-2.3%	-2.1%
Not injured	24,191	25,029	17,586	21,145	23,170	78.9%	9.6%	-1.1%
Not speed-related	321,605	319,693	253,594	316,333	334,358	100.0%	5.7%	1.0%
Fatal	697	594	665	647	687	0.2%	6.2%	-0.4%
Non-fatal injury	41,851	40,336	34,523	39,852	40,597	12.1%	1.9%	-0.8%
Not injured	279,057	278,763	218,406	275,834	293,074	87.7%	6.3%	1.2%
% speed-related	8.7%	8.9%	8.3%	8.0%	8.1%	-	1.1%	-2.0%
Fatal	20.8%	26.4%	26.1%	28.1%	28.7%	-	2.2%	8.4%
Non-fatal injury	13.4%	13.3%	13.0%	13.2%	12.7%	-	-3.6%	-1.2%
Not injured	8.0%	8.2%	7.5%	7.1%	7.3%	-	2.9%	-2.1%

### Notes

- 1) Collisions are defined as speed-related if either unsafe speed or speed too fast for weather conditions is listed as the primary or a contributing factor of the collision, or if a vehicle driver is issued a speeding citation.
- 2) Not injured status includes only 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 6.2. Fatalities in speed-related collisions in Indiana, 2018-22 # of fatalities Fatalities per 1,000 involved in speed-related collisions 10.2 9.2 6.8 

Note: Collisions are defined as speed-related if either unsafe speed or speed too fast for weather conditions is listed as the primary or a contributing factor of the collision, or if a vehicle driver is issued a speeding citation.

Source: Analysis provided by the Indiana University Public Policy Institute using data from the Indiana State Police, Automated Reporting Information Exchange System (ARIES),

downloaded January 25, 2023.

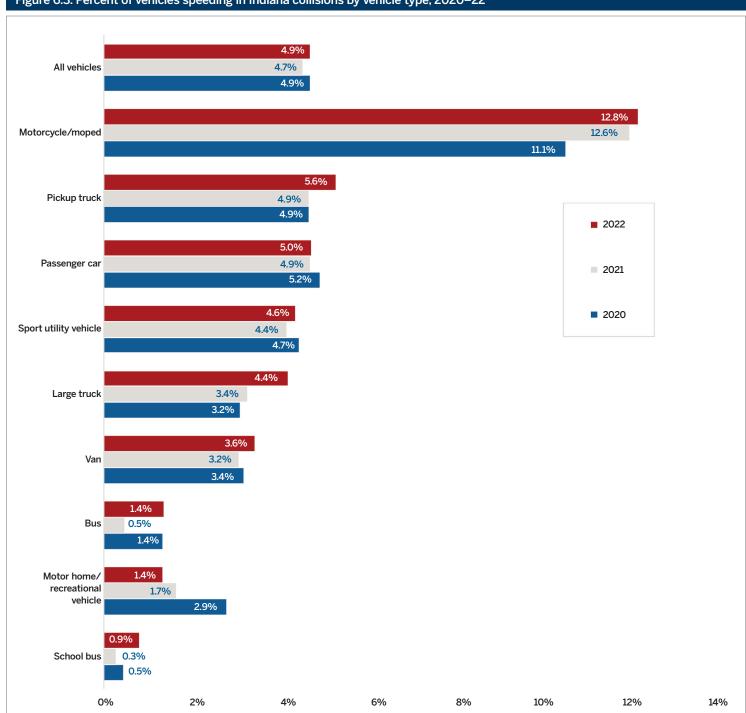
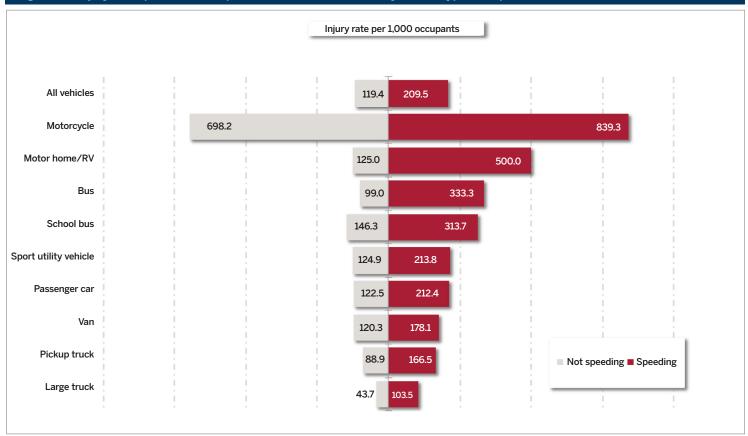


Figure 6.3. Percent of vehicles speeding in Indiana collisions by vehicle type, 2020–22

- Motorcycles include vehicles classified as motorcycles, motor-driven cycles-Class A and Class B, mopeds, and motorized bikes.
- Wood cycles include vehicles chashied a shirted system, more described in the cycles includes included by the considered separately.
   For this analysis, buses are large motor vehicles with drivers that seat nine or more persons excluding school buses, which are considered separately.
   Large trucks are trucks over 10,000 pound gross vehicle weight rating, including single-unit trucks and truck tractors.
   Excludes animal-drawn vehicles (non-motor vehicle), farm vehicles, combination vehicles, pedestrians, bicycles, and unknown vehicles types.

Figure 6.4. Injury rates per 1,000 occupants in collisions in Indiana by vehicle type and speed involvement, 2022



### Notes:

- 1) Motorcycles include vehicles classified as motorcycles, motor-driven cycles-Class A and Class B, mopeds, and motorized bikes.
- For this analysis, buses are large motor vehicles with drivers that seat nine or more persons excluding school buses, which are considered separately. Large trucks are trucks over 10,000 pound gross vehicle weight rating, including single unit trucks and truck tractors.
- Excludes animal-drawn vehicles (non-motor vehicle), farm vehicles, combination vehicles, pedestrians, bicycles, and unknown vehicle types.
- 5) Occupants include drivers and injured occupants.
- 6) Injury includes injuries identified as fatal, incapacitating, non-incapacitating, refused [treatment], possible, not reported, and unknown. Only a null value is treated as not injured.

	2018		20	019	20	20	20	021	20	)22
Age group	Female	Male								
15-20	8.0%	11.2%	7.9%	11.9%	6.9%	11.4%	6.3%	10.5%	6.4%	11.3%
21-24	6.8%	9.8%	7.1%	10.1%	5.9%	9.3%	6.0%	9.1%	5.9%	9.3%
25-34	5.4%	8.1%	5.2%	8.1%	4.9%	7.4%	4.7%	7.4%	4.4%	7.6%
35-44	3.8%	6.1%	4.1%	6.1%	3.6%	5.7%	2.9%	5.5%	3.6%	5.7%
45-54	3.0%	4.4%	2.9%	4.6%	2.7%	4.1%	2.4%	4.0%	2.8%	4.2%
55-64	2.3%	3.4%	2.5%	3.8%	2.0%	3.2%	1.9%	3.0%	2.2%	3.3%
65-74	1.7%	2.5%	2.0%	3.1%	1.5%	2.2%	1.3%	2.0%	1.6%	2.4%
75+	1.5%	2.2%	1.5%	2.4%	1.5%	2.0%	1.3%	1.5%	1.4%	2.1%
l ages	4.5%	6.4%	4.5%	6.6%	4.0%	6.1%	3.8%	5.9%	3.8%	6.2%

Source: Analysis provided by the Indiana University Public Policy Institute using data from the Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

- Data limited to drivers with valid gender and age reported.
   Excludes drivers under 15 years old and over 109 years old.

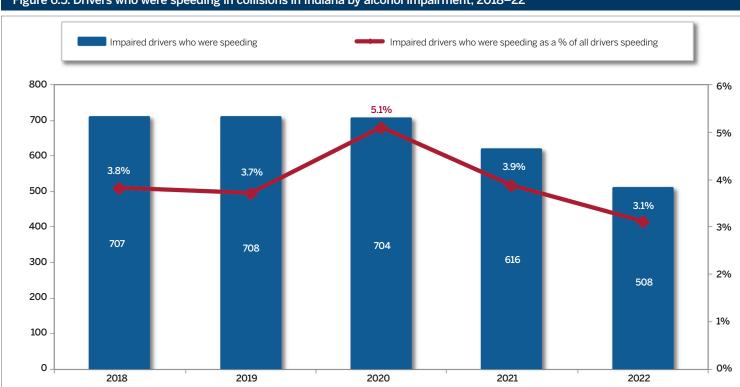


Figure 6.5. Drivers who were speeding in collisions in Indiana by alcohol impairment, 2018-22

Source: Analysis provided by the Indiana University Public Policy Institute using data from the Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

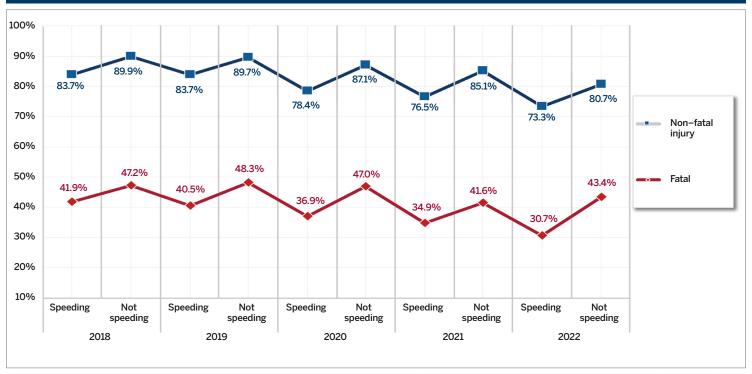
Note: Alcohol-impaired drivers are those with a blood alcohol count (BAC) of 0.08 g/dL or higher. BACs greater than 0.59 g/dL are excluded from the analysis.

		Not speeding		Speeding					
Age group	Non-impaired	Impaired	% impaired	Non-impaired	Impaired	% impaired			
15-20	35,346	135	0.4%	3,503	46	1.3%			
21–24	29,017	408	1.4%	2,377	93	3.8%			
25-34	63,699	881	1.4%	4,120	176	4.1%			
35-44	53,736	597	1.1%	2,641	94	3.4%			
45-54	43,984	398	0.9%	1,610	55	3.3%			
55-64	39,099	294	0.7%	1,145	33	2.8%			
65–74	24,247	117	0.5%	502	11	2.1%			
75+	12,932	21	0.2%	235	0	0.0%			
otal	302,060	2,851	0.9%	16,133	508	3.1%			

Source: Analysis provided by the Indiana University Public Policy Institute using data from the Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

- 1) Excludes drivers with unknown age, and ages under 15 years and over 109 years.
  2) Alcohol-impaired drivers are those with a blood alcohol count (BAC) of 0.08 g/dL or higher. BACs greater than 0.59 g/dL are excluded from the analysis.
- 3) Color scale applies across percent impaired for both speeding and not speeding

Figure 6.6. Restraint use rates among passenger vehicle occupants in collisions in Indiana by speed involvement and injury status, 2018-22



### Notes:

- Data is limited to drivers and injured occupants in passenger vehicles (passenger cars, pickup trucks, sport utility vehicles, and vans).
- Occupant restraints include seat belts as well as child restraints.
- Occupants identified as unrestrained and with unknown restraint use are included in the totals used for restraint use rate calculations.

Month			Total collisions	<b>;</b>	Speed-related collisions							
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022		
Jan	20,788	19,459	15,787	15,691	17,922	4,350	4,418	1,529	2,600	3,135		
Feb	16,180	16,982	16,853	15,930	16,728	2,366	3,199	2,570	3,120	2,918		
Mar	16,982	15,967	11,815	14,561	15,300	1,864	1,208	818	872	1,082		
Apr	15,777	16,389	8,013	16,038	15,487	995	1,086	684	1,201	870		
May	18,423	18,331	12,251	17,423	18,009	1,055	1,067	973		1,064		
Jun	17,288	17,687	14,580	17,729	16,681	977	1,098	970	1,210	808		
Jul	17,270	17,655	15,453	17,538	16,051	1,042	974	1,057	1,116	1,029		
Aug	17,861	18,092	15,430	17,818	17,283	1,061	1,007	1,015	1,102	984		
Sep	17,751	17,526	15,211	17,716	16,914	1,056	938	987	1,078	929		
Oct	20,315	20,157	17,695	20,484	18,920	1,225	1,317	1,283	1,496	1,055		
Nov	20,157	20,542	16,899	19,726	19,116	1,944	1,945	1,245	1,083	1,461		
Dec	18,495	18,818	15,962	18,146	18,525	1,689	1,952	1,916	1,432	2,763		
Total	217,287	217,605	175,949	208,800	206,936	19,624	20,209	15,047	17,475	18,098		
High	Jan	Nov	Oct	Oct	Nov	Jan	Jan	Feb	Feb	Jan		
_ow	Apr	Mar	Apr	Mar	Mar	Jun	Sep	Apr	Mar	Jun		

Source: Analysis provided by the Indiana University Public Policy Institute using data from the Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

### Notes:

- 1) Collisions are defined as speed-related if either unsafe speed or speed too fast for weather conditions is listed as the primary or a contributing factor of the collision, or if a vehicle driver is issued a speeding citation.
- 2) Color scales apply to all months and years within total collisions and within speed-related collisions for the entire five-year period (2018–22).

Table 6.6. Percent of speed-related collisions in Indiana by time of day and day of week, 2022 % speed-related Time Wed Fri Sun Mon Tue Thu Sat by hour 12 a.m. 11.7% 13.6% 17.6% 15.1% 13.2% 14.2% 13.2% 12.7% 16.1% 18.5% 14.4% 14.5% 1 a.m. 2 a.m. 16.1% 15.6% 19.2% 13.8% 16.4% 13.5% 3 a.m. 14.2% 12.8% 16.9% 5.7% 4 a.m. 15.4% 19.1% 12.4% 6.5% 5 a.m. 6.4% 17.5% 12.7% 10.8% 14.5% 6 a.m. 12.3% 6.0% 6.6% 14.8% 94% 7.7% 7 a.m. 14.0% 16.2% 8.9% 7.0% 6.3% 5.7% 7.2% 15.5% 14.9% 18.5% 9.9% 8 a.m. 6.7% 5.0% 9 a.m. 13.3% 5.7% 6.4% 14.4% 16.2% 10.5% 10 a.m. 5.8% 6.1% 6.8% 14.3% 9.5% 5.1% 5.4% 8.3% 11 a.m. 3.9% 6.8% 12 p.m. 5.2% 6.1% 4.2% 5.2% 6.3% 1 p.m. 5.7% 2 p.m. 5.7% 4.2% 5.9% 6.9% 3 p.m. 5.9% 5.2% 7.3%

6.0%

5.4%

6.4%

13.6%

6.6%

20.3%

9.0%

7.7%

6.7%

10.6%

12.8%

11.7%

11.7%

7.0%

7.2%

7.4%

8.6%

9.7% 10.6%

11.0%

12.3%

8.7%

Low < > High

Source: Analysis provided by the Indiana University Public Policy Institute using data from the Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

### Notes:

4 p.m.

5 p.m.

6 p.m.

7 p.m.

8 p.m.

9 p.m.

10 p.m. 11 p.m.

% speed-

related by day

5.5%

5.3%

6.3%

7.6%

7.7%

7.6%

4.8%

4.9%

4.8%

5.8%

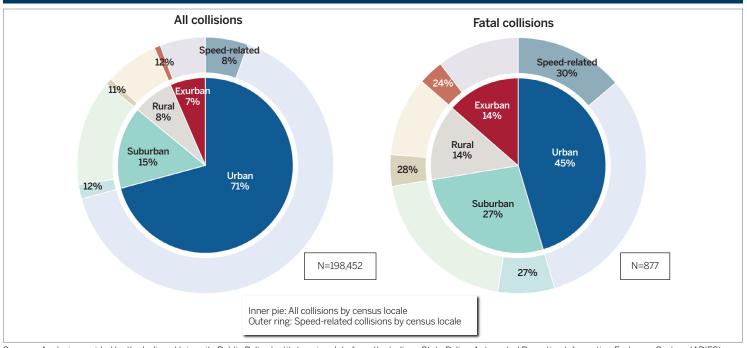
10.2%

<sup>1)</sup> Collisions are defined as speed-related if either unsafe speed or speed too fast for weather conditions is listed as the primary or a contributing factor of the collision, or if a vehicle driver is issued a speeding citation.

<sup>2)</sup> Excludes collisions where no valid time was reported.

<sup>3)</sup> Color scale applies to all days and times.

Figure 6.7. Total and fatal collisions in Indiana by speed involvement and census locale, 2022



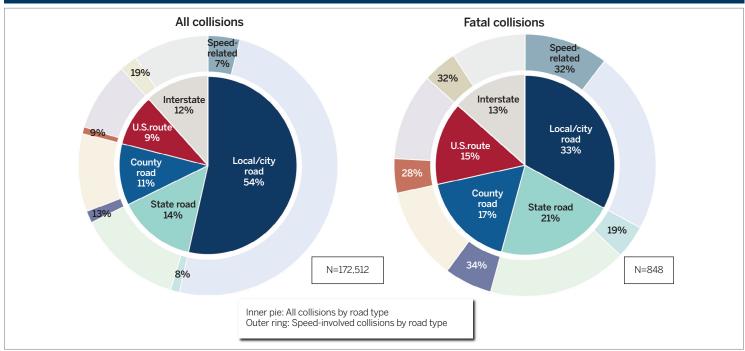
Sources: Analysis provided by the Indiana University Public Policy Institute using data from the Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023; U.S. Census Bureau, 2010 TIGER/line shapefile—Urban areas.

### Notes

- 1) Collisions are defined as speed-related if either unsafe speed or speed too fast for weather conditions is listed as the primary or a contributing factor of the collision, or if a vehicle driver is issued a speeding citation.
- 2) Census locales for traffic collisions are defined as urban, suburban, exurban, or rural. Urban areas are those defined in the 2010 census generally by density and size. Suburban, exurban, and rural areas were created by the research team based on the 2010 urban boundaries. See the Glossary for a complete explanation.

3) Excludes cases where locale could not be determined.

Figure 6.8. Total and fatal collisions in Indiana by speed-involvement and road type, 2022



Source: Analysis provided by the Indiana University Public Policy Institute using data from the Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

- 1) Collisions are defined as speed-related if either unsafe speed or speed too fast for weather conditions is listed as the primary or a contributing factor of the collision, or if a vehicle driver is issued a speeding citation.
- 2) Excludes collisions on private drives and with no valid road class reported



# CHILDREN AND YOUNG DRIVERS

DESCRIPTION OF THE PROPERTY OF

## **CHILDREN AND YOUNG DRIVERS, 2022**

In 2020, motor vehicle traffic collisions were the first- or second-leading causes of death for 1- to 14-year-olds and 15- to 20-year-olds in Indiana and nationally.<sup>4</sup> In 2022, 0- to 14-year-olds sustained 3% of traffic fatalities and 6% of non-fatal traffic injuries in Indiana, while 15- to 20-year-olds sustained 8% of traffic fatalities and 13% of non-fatal traffic injuries. This chapter summarizes information on traffic collisions between 2018 and 2022 involving children ages 0–14 and young drivers ages 15–20.

### Children (ages 0-14)

In 2022, 26 children ages 0–14 were killed in Indiana traffic collisions. This was fewer annual child deaths than in the years 2019–21, but more than in 2018 (Figure 7.1). Deaths in every child age category decreased from 2021 to 2022 except for children ages 4–7 and 13–14 (Table 7.1). Deaths among children ages 4–7 increased by one in 2022 while deaths among children ages 13–14 were the same in both years. Deaths among children ages 4–7 made up 31% of all child traffic deaths in 2022, the highest percentage among child age groups.

The rate of fatal injuries per 1,000 children involved in crashes decreased from 13.2 in 2021 to 8.6 in 2022 (Figure 7.1). In 2022, the fatality rate was 2 per 100,000 children, a lower rate than in the three previous years, 2019–21 (Figure 7.2).

Incapacitating injuries experienced by children decreased substantially from 1,013 in 2021 to 578 in 2022 (Table 7.1). Non-incapacitating injuries, however, increased from 1,681 in 2021 to 2,298 in 2022.

Based on child population estimates (Table 7.2), the 8- to 12-year-old and 13-to 14-year-old age groups were overrepresented among child injuries in 2022. Children in the 8-to 12-year-old cohort made up 34% of Indiana children in 2020 but comprised 36% of traffic injuries to children in 2022. Children in the 13- to 14-year-old cohort made up 14% of Indiana's children but accounted for 19% of traffic injuries among children. This oldest child cohort also experienced the highest injury rate among the five age groups at 311 per 100,000 children. The lowest injury rate was among children ages 1–3 at 169 per 100,000 children.

Among children involved in collisions in 2022, 85% were vehicle passengers (Figure 7.3). In 2022, 500, or 83%, of the children who sustained fatal or incapacitating injuries were vehicle passengers (calculated from Table 7.3). Between 2021 and 2022, the number of fatalities among child occupants decreased from 26 to 19. Incapacitating injuries among child occupants also declined during this period. The number of child pedestrian deaths declined from 11 in 2021 to 7 in 2022. There were no child pedalcyclist deaths reported in 2021 or 2022. The number of incapacitating injuries among child pedalcyclists and pedestrians declined during the same period. The number of non-incapacitating injuries, however, increased for child occupants and pedestrians.

### Restraint use

Rates of restraint use—seat belts and child restraints—among children in traffic collisions tend to decline as children get older (Figure 7.4). In 2022, 13- to 14-year-olds in collisions had the lowest rate at 72%.

Between 2018 and 2022, this cohort exhibited rates of restraint use consistently lower than all other age groups. The highest rates of restraint use among age groups during this period was for children less than 1-year-old except in 2021 and 2022 while the highest rate of restraint use was among 1-to 3-year-olds.

Figure 7.5 shows the rates of child restraint use in collisions relative to their drivers' use of seat belts. Between 2018 and 2022, more than 98% of children were properly restrained when their drivers were restrained. When drivers were unrestrained, only 5%–15% of child occupants were restrained each year.

### Alcohol-impaired collisions

In 2022, 57 children were involved in alcohol-impaired traffic collisions (Figure 7.6). The number of children involved in alcohol-impaired collisions decreased from 84 in 2021. The rate of child fatal or incapacitating injuries in alcohol-impaired collisions per 1,000 children involved also declined substantially from 13.9 in 2021 to 3.6 in 2022.

### Location of traffic injuries

In 2022, the fatal injury rate per 1,000 children involved was highest in suburban and rural locales (Figure 7.7). Map 8 in the County Comparisons chapter shows child injury rates by county.

### Young drivers (ages 15-20)

In 2022, there were 36,259 collisions involving one or more young drivers. Like all crashes, collisions involving young drivers declined from 2021 to 2022 (Figure 7.8). There were 39,030 young drivers involved in collisions in 2022, which also reflects a decrease from 2021 (Table 7.4).

Fatal collisions involving young drivers fell to 104 in 2022 from 115 in 2021 (Figure 7.9). Total fatalities in crashes with young drivers declined from 129 in 2021 to 114 in 2022 (Table 7.4).

Fatalities among young drivers made up 7% of all driver fatalities in 2022. The number of young driver fatalities decreased from 57 in 2021 to 48 in 2022. In collisions involving young drivers, fatalities among drivers and passengers in other vehicles and non-motorists also declined in 2022. However, fatalities among passengers of young drivers increased slightly from 22 in 2021 to 23 in 2022. From 2018–2022, more than two-thirds of fatalities in collisions involving young drivers were young drivers and their passengers (calculated from Table 7.4).

Young drivers suffering non-fatal injuries made up 12% of all drivers with non-fatal injuries in 2022 (Table 7.4). In collisions involving young drivers, non-fatal injuries for young drivers, passengers of young drivers, and drivers and passengers in other vehicles declined in 2022. Non-fatal injuries to non-motorists, however, increased from 156 in 2021 to 169 in 2022.

In 2022, young drivers comprised about 7% of all licensed drivers (not shown). Young drivers were overrepresented in traffic collisions relative to their share of all licensed drivers. The rate of young drivers involved in collisions per 10,000 licensed drivers was 1,123 in 2022, the highest rate among the eight population categories (Figure 7.10).

<sup>&</sup>lt;sup>4</sup>Centers for Disease Control and Prevention, 2023.

From 2018 to 2022, young male drivers were killed at higher rates than young female drivers. In 2022, the rate of fatal injuries for young male drivers was 2.0 per 10,000 licensed drivers, while the rate for young female drivers was 0.8 (Table 7.5). The fatality rate for young male drivers in 2022 was lower than in 2018, 2020, and 2021. The lowest rate in the five-year period was 1.8 in 2019.

### Seat belt use

From 2018 to 2022, seat belt among young drivers in passenger vehicle collisions has declined steadily (Table 7.6). In 2022, 30% of young drivers who died were properly restrained compared to 81% who sustained non-fatal injuries. During the five-year period, seat belt use among young drivers in crashes of both genders declined consistently (Table 7.7). However, young female drivers were more likely to be wearing a seat belt than young male drivers in all years.

### Speed-related collisions

From 2018 to 2022, young drivers in collisions were identified as speeding at a higher percentage than drivers in older age categories (Table 7.8). Young male drivers were more likely to be identified as

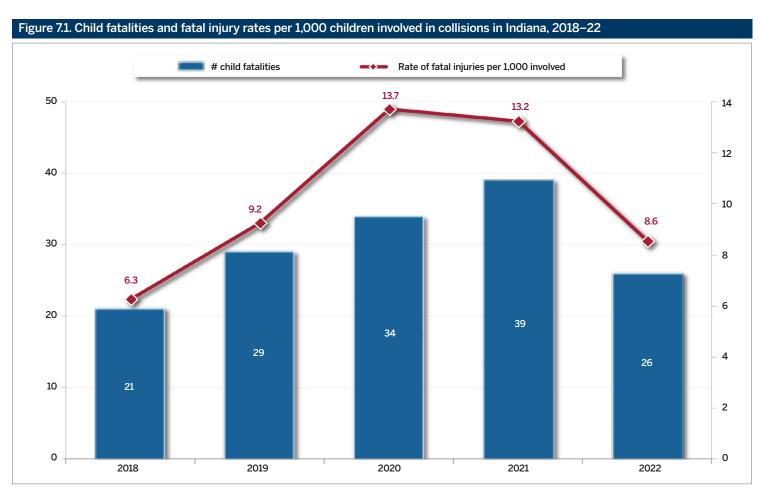
speeding in collisions than young female drivers. In 2022, 11% of young male drivers were speeding at the time of the collision while only 6% of young female drivers were speeding.

### Alcohol-impaired collisions

In 2022, the rate of alcohol impairment among young drivers was among the lowest of all driver age groups (Figure 7.11). The rate of alcohol-impairment for drivers ages 15 to 20 was 5.2 per 10,000 licensed drivers compared to the highest rate of 16.1 for drivers ages 21 to 24.

### Location of traffic injuries

In 2022, the fatal injury rates per 1,000 young drivers involved were highest in rural and exurban locales at 4.8 and 4.5 per 1,000 young drivers, respectively. The rates in urban and suburban locales were lower (Figure 7.12). Table 2.6 and Map 2.7 in the County Comparisons chapter show selected young driver data by county.



Source: Analysis provided by the Indiana University Public Policy Institute using data from the Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

Note: Includes individuals ages 0–14 identified as injured occupants, pedestrians, and pedalcyclists as well as drivers and animal-drawn vehicle operators ages 8–14. See Glossary for a full explanation.

Table 7.1. Children in collisions in Indiana by injury status and age group, 2018–22

Injury status by age group	2018		2019		20	020	20	021	20	)22	Annual rate	e of change
mjary status by age group	Count	% total	2021–22	2018-22								
All children involved	3,356	100%	3,138	100%	2,478	100%	2,944	100%	3,038	100%	3.2%	-2.5%
<1	147	4%	139	4%	125	5%	144	5%	166	5%	15.3%	3.1%
1–3	495	15%	453	14%	324	13%	395	13%	428	14%	8.4%	-3.6%
4–7	779	23%	768	24%	630	25%	714	24%	736	24%	3.1%	-1.4%
8–12	1,287	38%	1,172	37%	865	35%	1,055	36%	1,055	35%	0.0%	-4.8%
13-14	648	19%	606	19%	534	22%	636	22%	653	21%	2.7%	0.2%
Fatal	21	100%	29	100%	34	100%	39	100%	26	100%	-33.3%	5.5%
<1	0	15.0%	1	5.7%	3	6.7%	8	20.5%	3	11.5%	-62.5%	N/A
1–3	2	5.0%	10	17.1%	6	46.7%	8	20.5%	5	19.2%	-37.5%	25.7%
4–7	7	20.0%	6	20.0%	12	6.7%	7	17.9%	8	30.8%	14.3%	3.4%
8–12	6	35.0%	9	42.9%	4	26.7%	11	28.2%	5	19.2%	-54.5%	-4.5%
13-14	6	25.0%	3	14.3%	9	13.3%	5	12.8%	5	19.2%	0.0%	-4.5%
Incapacitating	1,293	100%	1,279	100%	920	100%	1,013	100%	578	100%	-42.9%	-18.2%
<1	54	4.8%	61	5.0%	41	4.3%	49	4.8%	28	4.8%	-42.9%	-15.1%
1–3	203	13.7%	192	14.7%	137	14.4%	126	12.4%	76	13.1%	-39.7%	-21.8%
4–7	275	25.2%	321	24.7%	235	24.3%	250	24.7%	156	27.0%	-37.6%	-13.2%
8–12	521	35.1%	473	37.0%	325	39.0%	389	38.4%	196	33.9%	-49.6%	-21.7%
13-14	240	21.1%	232	18.6%	182	18.0%	199	19.6%	122	21.1%	-38.7%	-15.6%
Non-incapacitating	1,824	100%	1,613	100%	1,319	100%	1,681	100%	2,298	100%	36.7%	5.9%
<1	87	4.8%	72	4.5%	76	5.8%	76	4.5%	130	5.7%	71.1%	10.6%
1–3	276	15.1%	237	14.7%	171	13.0%	253	15.1%	340	14.8%	34.4%	5.4%
4–7	465	25.5%	418	25.9%	348	26.4%	437	26.0%	564	24.5%	29.1%	4.9%
8–12	686	37.6%	616	38.2%	473	35.9%	593	35.3%	829	36.1%	39.8%	4.8%
13-14	310	17.0%	270	16.7%	251	19.0%	322	19.2%	435	18.9%	35.1%	8.8%
Not injured	218	100%	217	100%	205	100%	211	100%	136	100%	-35.5%	-11.1%
<1	6	1.4%	5	1.6%	5	5.6%	11	5.2%	5	3.7%	-54.5%	-4.5%
1–3	14	1.9%	14	2.9%	10	8.7%	8	3.8%	7	5.1%	-12.5%	-15.9%
4–7	32	5.0%	23	10.1%	35	11.3%	20	9.5%	8	5.9%	-60.0%	-29.3%
8–12	74	16.0%	74	30.5%	63	33.8%	62	29.4%	25	18.4%	-59.7%	-23.8%
13-14	92	75.8%	101	54.9%	92	40.7%	110	52.1%	91	66.9%	-17.3%	-0.3%

<sup>1)</sup> Includes individuals ages 0-14 identified as injured occupants, pedestrians, and pedalcyclists as well as drivers and animal-drawn vehicle operators ages 8-14. See Glossary for a full explanation.

Non-incapacitating injuries include those injuries reported as non-incapacitating, possible, refused [treatment], not reported, and unknown.
 Not injured includes individuals with 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, counts of those listed as not injured should be interpreted with caution.

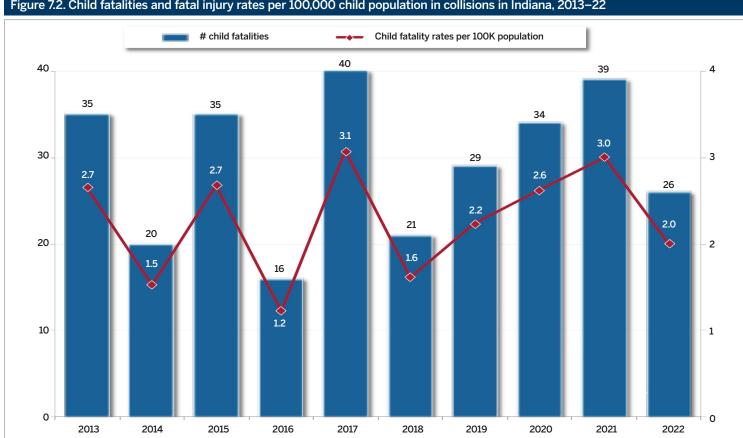


Figure 7.2. Child fatalities and fatal injury rates per 100,000 child population in collisions in Indiana, 2013–22

Sources: Analysis provided by the Indiana University Public Policy Institute using data from the Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023, and the U.S. Census Bureau, 2020 age-specific population estimates.

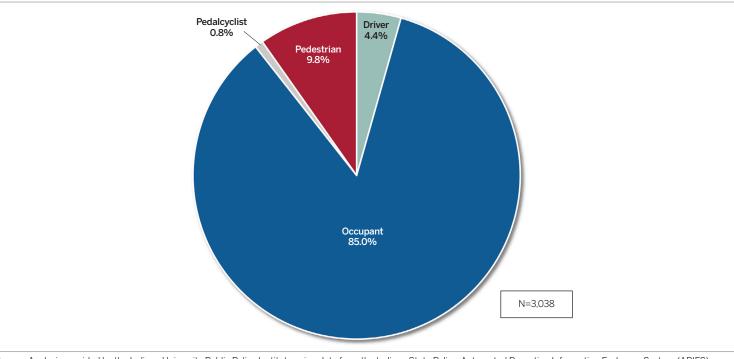
Note: Includes individuals ages 0-14 identified as injured occupants, pedestrians, and pedalcyclists as well as drivers and animal-drawn vehicle operators ages 8-14. See Glossary for a full explanation.

Age group	Estimated IN child population (2020)	Share of IN child population (2020)	2022 total child injuries	Share of IN child injuries	2022 injury rate per 100K child population
<1	80,450	6.2%	161	5.5%	200.1
1–3	248,930	19.2%	421	14.5%	169.1
4–7	346,650	26.8%	728	25.1%	210.0
8–12	438,617	33.9%	1,030	35.5%	234.8
13–14	180,827	14.0%	562	19.4%	310.8
Total	1,295,474	100.0%	2,902	100.0%	224.0

Sources: Analysis provided by the Indiana University Public Policy Institute using data from the Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023, and the U.S. Census Bureau, 2020 age-specific population estimates.

- 1) Includes injuries for individuals ages 0-14 identified as injured occupants, pedestrians, and pedalcyclists as well as drivers and animal-drawn vehicle operators ages 8-14. See Glossary for a full explanation.
- Total injuries includes those reported as fatal, incapacitating, non-incapacitating, possible, refused [treatment], not reported, and unknown. Excludes individuals classified as not injured (null).
- 3) Color scale applies to data in each column.

Figure 7.3. Children in collisions in Indiana by person type, 2022



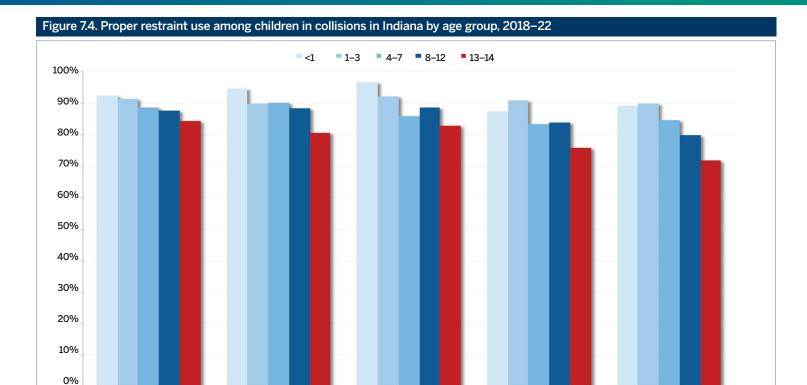
### Notes:

- 1) Excludes animal-drawn vehicle operators.
- 2) Drivers exclude individuals ages 7 and under. See Glossary for a full explanation.

Table 7.3. Children killed or injured in collisions in Indiana by injury status and person type, 2018-22												
Injury status by parson time	20	018	2019		2020		2021		2022		Annual rate of change	
Injury status by person type	Count	% total	2021–22	2018-22								
Fatal	21	100%	29	100%	34	100%	39	100%	26	100%	-33.3%	5.5%
Driver	0	0.0%	1	3.4%	0	0.0%	2	5.1%	0	0.0%	-100.0%	N/A
Occupant	13	61.9%	19	65.5%	26	76.5%	26	66.7%	19	73.1%	-26.9%	10.0%
Pedalcyclist	0	0.0%	1	3.4%	1	2.9%	0	0.0%	0	0.0%	N/A	N/A
Pedestrian	8	38.1%	8	27.6%	7	20.6%	11	28.2%	7	26.9%	-36.4%	-3.3%
Incapacitating	1,292	100%	1,278	100%	920	100%	1,012	100%	578	100%	-42.9%	-18.2%
Driver	12	0.9%	13	1.0%	16	1.7%	21	2.1%	13	2.2%	-38.1%	2.0%
Occupant	1,154	89.3%	1,133	88.7%	798	86.7%	866	85.6%	481	83.2%	-44.5%	-19.7%
Pedalcyclist	35	2.7%	43	3.4%	47	5.1%	37	3.7%	13	2.2%	-64.9%	-21.9%
Pedestrian	91	7.0%	89	7.0%	59	6.4%	88	8.7%	71	12.3%	-19.3%	-6.0%
Non-incapacitating	1,823	100%	1,613	100%	1,319	100%	1,681	100%	2,298	100%	36.7%	6.0%
Driver	13	0.7%	18	1.1%	23	1.7%	11	0.7%	31	1.3%	181.8%	24.3%
Occupant	1,661	91.1%	1,461	90.6%	1,190	90.2%	1,548	92.1%	2,058	89.6%	32.9%	5.5%
Pedalcyclist	68	3.7%	57	3.5%	53	4.0%	35	2.1%	8	0.3%	-77.1%	-41.4%
Pedestrian	81	4.4%	77	4.8%	53	4.0%	87	5.2%	201	8.7%	131.0%	25.5%

Source: Analysis provided by the Indiana University Public Policy Institute using data from the Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

- Excludes animal-drawn vehicle operators.
   Driver excludes individuals ages 7 and under. See Glossary for a full explanation.
- 3) Non-incapacitating injuries include those injuries reported as non-incapacitating, possible, refused [treatment], not reported, and unknown.



2020

2021

2022

### Notes

Includes individuals identified as injured occupants (ages 0–14) or drivers (ages 8–14). See Glossary for a full explanation. 1)

2019

- Restraint use rates are limited to drivers and injured occupants in passenger vehicles—passenger cars, pickup trucks, sport utility vehicles, and vans.
- Occupant restraints include seatbelts and child restraints

2018

Unrestrained and unknown restraint use codes are included in totals for restraint use rate calculations.

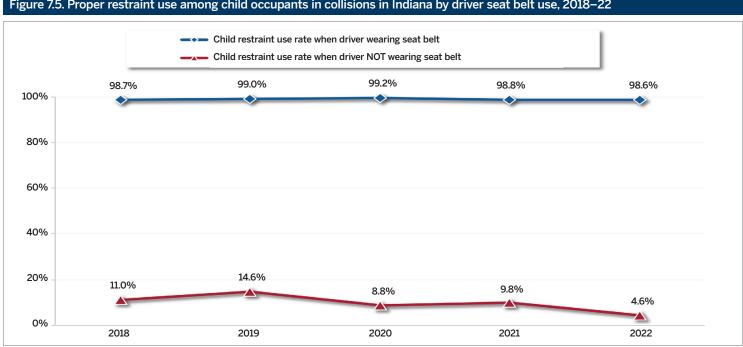
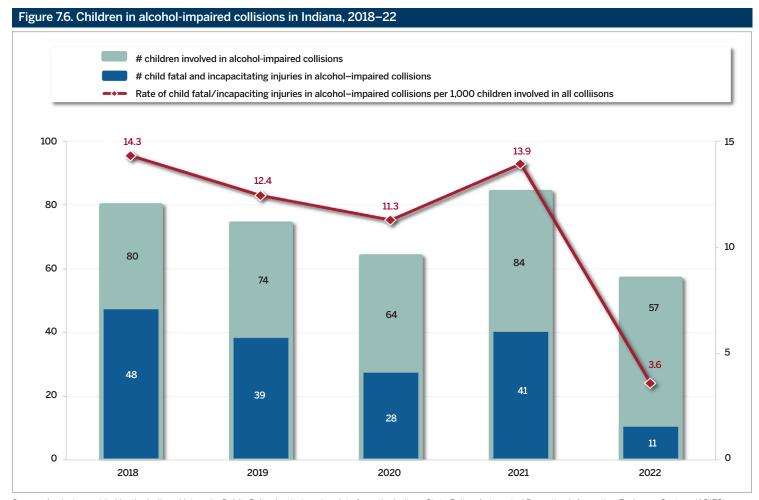


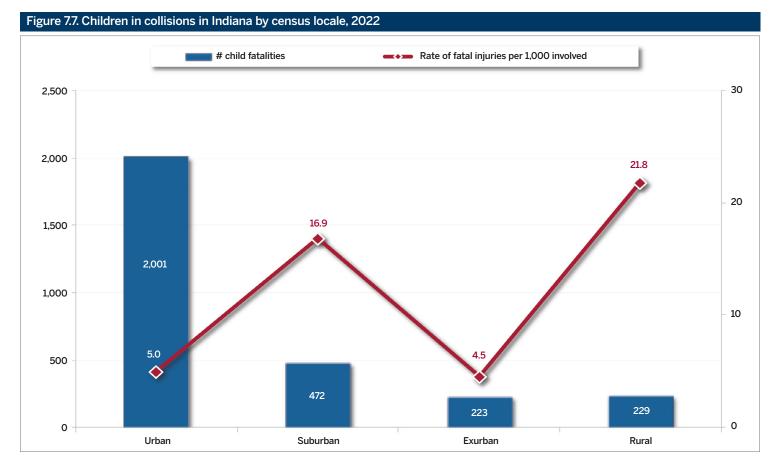
Figure 7.5. Proper restraint use among child occupants in collisions in Indiana by driver seat belt use, 2018-22

Source: Analysis provided by the Indiana University Public Policy Institute using data from the Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

- Includes individuals identified as injured occupants (ages 0-14) and drivers (ages 8-14). See Glossary for a full explanation.
- Restraint use rates are limited to drivers and injured occupants in passenger vehicles—passenger cars, pickup trucks, sport utility vehicles, and vans.
- Child occupant restraints include seat belts and child restraints. Driver restraints are seat belts
- 4) Unrestrained and unknown restraint use codes are included in totals for restraint use rate calculations

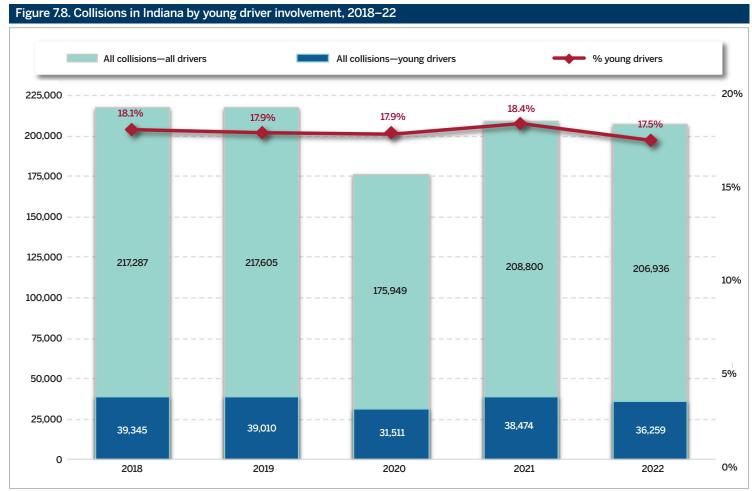


- 1) Includes individuals ages 0–14 identified as injured occupants, pedestrians, and pedalcyclists as well as drivers and animal-drawn vehicle operators ages 8–14. See Glossary for a full explanation
- 2) Alcohol-impaired collisions are defined as those that involved at least one driver or non-motorist with a BAC of 0.08 g/dL or greater. BAC levels greater than 0.59% g/dL are excluded from the analysis.



Sources: Analysis provided by the Indiana University Public Policy Institute using data from the Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023; and U.S. Census Bureau, 2010 TIGER/line shapefile—Urban areas.

- 1) Includes all individuals ages 0-14 identified as injured occupants, pedestrians, and pedalcyclists as well as drivers and animal-drawn vehicle operators ages 8-14. See Glossary for a full explanation.
- 2) Census locales for traffic collisions are defined as urban, suburban, exurban, or rural. Urban areas are those defined in the 2010 census generally by density and size. Suburban, exurban, and rural areas were created by the research team based on the 2010 urban boundaries. See the Glossary for a complete explanation.
   3) Excludes children in collisions with unknown census locale.



Note: Young drivers are defined as drivers ages 15-20.



Source: Analysis provided by the Indiana University Public Policy Institute using data from the Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

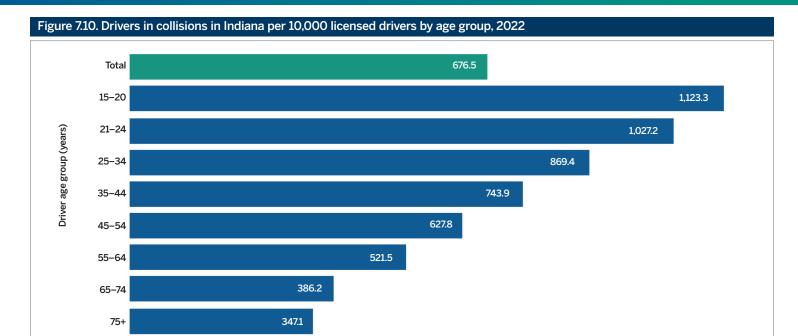
Note: Young drivers are defined as drivers ages 15–20.

Table 7.4. Injury status for individuals in collisions in Indiana involving young drivers, 2018–22

			Count of collision	ns		Annual rat	e of change
Person type/injury status	2018	2019	2020	2021	2022	2021–22	2018-22
Total drivers	337,339	336,945	264,704	330,533	350,689	6.1%	1.0%
Fatal	571	560	600	612	664	8.5%	3.8%
Non-fatal injuries	34,513	33,651	29,049	33,730	34,156	1.3%	-0.3%
Not injured	302,255	302,734	235,055	296,191	315,869	6.6%	1.1%
Young drivers	42,281	41,848	33,603	41,395	39,030	-5.7%	-2.0%
Fatal	62	41	50	57	48	-15.8%	-6.2%
Non-fatal injuries	4,153	4,067	3,583	4,163	3,995	-4.0%	-1.0%
Not injured	38,066	37,740	29,970	37,175	34,987	-5.9%	-2.1%
Passengers of young drivers	1,655	1,576	1,492	1,662	1,551	-6.7%	-1.6%
Fatal	33	23	37	22	23	4.5%	-8.6%
Non-fatal injuries	1,563	1,491	1,402	1,594	1,511	-5.2%	-0.8%
Not injured	59	62	53	46	17	-63.0%	-26.7%
Drivers and passengers in other vehicles	29,148	28,600	22,388	29,084	28,994	-0.3%	-0.1%
Fatal	30	36	31	37	35	-5.4%	3.9%
Non-fatal injuries	4,365	4,205	3,468	4,108	3,935	-4.2%	-2.6%
Not injured	24,753	24,359	18,889	24,939	25,024	0.3%	0.3%
Non-motorists	254	209	213	202	197	-2.5%	-6.2%
Fatal	14	5	10	13	8	-38.5%	-13.1%
Non-fatal injuries	197	158	156	156	169	8.3%	-3.8%
Not injured	43	46	47	33	20	-39.4%	-17.4%
All individuals involved in young driver crashes	73,338	72,233	57,696	72,343	69,772	-3.6%	-1.2%
Fatal	139	105	128	129	114	-11.6%	-4.8%
Non-fatal injuries	10,278	9,921	8,609	10,021	9,610	-4.1%	-1.7%
Not injured	62,921	62,207	48,959	62,193	60,048	-3.4%	-1.2%

Source: Analysis provided by the Indiana University Public Policy Institute using data from the Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

- Notes:
  1) Young drivers are defined as drivers ages 15–20.
  2) Young driver crashes involve one or more drivers ages 15–20.
  3) Non-motorists include pedestrians, pedalcyclists, and animal-drawn vehicle operators.



Sources: Analysis provided by the Indiana University Public Policy Institute using data from the Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023; and Indiana Bureau of Motor Vehicles, downloaded March 22, 2023.

- Excludes drivers under 15 years old and over 109 years old.
   Data limited to drivers with valid age reported.

	20	18	20	19	20	20	2021		2022		Annual rate of change, 2018–22	
Age group	Female	Male	Female	Male								
15-20	1.3	2.2	0.6	1.8	0.5	2.4	0.7	2.7	0.8	2.0	-13.1%	-2.9%
21-24	0.5	2.2	0.8	2.4	0.9	2.5	1.1	2.5	0.5	2.5	-0.5%	4.1%
25-34	0.7	2.0	0.6	2.2	0.7	2.4	0.8	2.7	0.9	2.4	7.0%	5.0%
35-44	0.4	2.2	0.4	2.1	0.2	1.6	0.7	2.1	0.6	2.4	16.1%	2.3%
45-54	0.3	1.8	0.4	1.7	0.3	2.5	0.5	2.2	0.5	2.4	12.3%	7.3%
55-64	0.5	1.8	0.3	1.7	0.5	2.1	0.5	1.4	0.5	1.9	-3.0%	1.5%
65-74	0.5	1.7	0.5	1.6	0.3	1.7	0.4		0.5	1.9	3.4%	3.5%
75+	0.7	2.3	0.5	2.7	0.3	2.1	0.2	1.7	1.2	1.6	14.2%	-9.1%
All ages	0.5	2.0	0.5	2.0	0.5	2.1	0.6	2.0	0.6	2.2	4.6%	2.5%

Sources: Analysis provided by the Indiana University Public Policy Institute using data from the Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023; and Indiana Bureau of Motor Vehicles, downloaded March 22, 2023.

### Notes:

- Excludes drivers under 15 years old and over 109 years old.
   Data limited to drivers with valid age reported.
- 3) Color scale applies across all years, age groups, and genders.

Table 7.6. Seat belt use among young drivers in passenger vehicle collisions in Indiana by injury status, 2018-22

			Count of collision	S		Annual rate	e of change
Passenger vehical occupant injuries	2018	2019	2020	2021	2022	2021–22	2018-22
All young drivers	41,649	41,283	33,125	40,903	38,513	-5.8%	-1.9%
Properly restrained	37,767	37,231	29,070	35,638	31,954	-10.3%	-4.1%
% restrained	90.7%	90.2%	87.8%	87.1%	83.0%	-4.8%	-2.2%
Fatalities	22	15	20	22	18	-18.2%	-4.9%
Properly restrained	30	22	18	21	13	-38.1%	-18.9%
% restrained	51.7%	59.5%	40.0%	43.8%	30.2%	-30.9%	-12.6%
Non-fatal injuries	3,974	3,909	3,436	3,995	3,795	-5.0%	-1.1%
Properly restrained	3,565	3,525	2,998	3,387	3,069	-9.4%	-3.7%
% restrained	89.7%	90.2%	87.3%	84.8%	80.9%	-4.6%	-2.6%
Not injured	37,617	37,337	29,644	36,860	34,675	-5.9%	-2.0%
Properly restrained	34,172	33,684	26,054	32,230	28,872	-10.4%	-4.1%
% restrained	90.8%	90.2%	87.9%	87.4%	83.3%	-4.8%	-2.2%

Source: Analysis provided by the Indiana University Public Policy Institute using data from the Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

### Notes:

- 1) Seat belt use rates are calculated based on individuals identified as young drivers (ages 15-20).
- 2) Unrestrained and unknown restraint use codes are included in totals for restraint use rate calculations.
- 3) Seat belt use rates are limited to young drivers in passenger vehicles—passenger cars, pickup trucks, sport utility vehicles, and vans.

### Table 7.7. Seat belt use among drivers in passenger vehicle collisions in Indiana by gender and age group, 2018–22

	2018		20	2019		2020		021	20	)22	Annual rate of change, 2018-22	
Age group	Female	Male	Female	Male								
15-20	92.5%	89.8%	91.5%	89.6%	89.2%	87.1%	88.0%	86.5%	84.2%	82.0%	-2.3%	-2.3%
21-24	92.2%	89.6%	91.7%	89.5%	88.9%	86.8%	87.3%	85.2%	83.6%	80.8%	-2.4%	-2.6%
25-34	91.4%	89.5%	91.2%	89.5%	88.6%	85.8%	86.8%	84.4%	82.6%	80.2%	-2.5%	-2.7%
35-44	91.7%	90.0%	91.3%	89.9%	88.8%	86.7%	86.8%	84.8%	83.0%	80.5%	-2.5%	-2.7%
45-54	92.2%	90.6%	91.3%	90.6%	89.2%	87.3%	87.7%	85.8%	83.4%	81.5%	-2.5%	-2.6%
55-64	92.3%	91.1%	91.9%	90.5%	89.8%	88.0%	87.8%	86.6%	83.1%	82.1%	-2.6%	-2.6%
65-74	92.0%	91.4%	91.4%	90.7%	89.5%	88.4%	88.0%	87.1%	83.7%	82.2%	-2.3%	-2.6%
75+	91.7%	91.0%	91.3%	90.4%	89.7%	88.4%	88.3%	86.7%	83.4%	82.7%	-2.3%	-2.4%
All ages	91.9%	90.2%	91.4%	90.0%	89.1%	87.0%	87.4%	85.6%	83.3%	81.2%	-2.4%	-2.6%

Low < > High

Source: Analysis provided by the Indiana University Public Policy Institute using data from the Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

### Notes:

- 1) Data limited to drivers with valid age reported.
- 2) Unrestrained and unknown restraint use codes are included in totals for restraint use rate calculations.
- 3) Seat belt use rates are limited to drivers in passenger vehicles—passenger cars, pickup trucks, sport utility vehicles, and vans.
- 4) Excludes drivers under 15 years old and over 109 years old.
- 5) Color scale applies across all years, age groups, and genders.

Table 7.8. Percent of drivers speeding in collisions in Indiana by age group and gender, 2018-22

	2018		2019		20	20	20	21	2022		
Age group	Female	Male									
15-20	8.0%	11.2%	7.9%	11.9%	6.9%	11.4%	6.3%	10.5%	6.4%	11.3%	
21-24	6.8%	9.8%	7.1%	10.1%	5.9%	9.3%	6.0%	9.1%	5.9%	9.3%	
25-34	5.4%	8.1%	5.2%	8.1%	4.9%	7.4%	4.7%	7.4%	4.4%	7.6%	
35-44	3.8%	6.1%	4.1%	6.1%	3.6%	5.7%	2.9%	5.5%	3.6%	5.7%	
45-54	3.0%	4.4%	2.9%	4.6%	2.7%	4.1%	2.4%	4.0%	2.8%	4.2%	
55-64	2.3%	3.4%	2.5%	3.8%	2.0%	3.2%	1.9%	3.0%	2.2%	3.3%	
65-74	1.7%	2.5%	2.0%	3.1%	1.5%	2.2%	1.3%	2.0%	1.6%	2.4%	
75 +	1.5%	2.2%	1.5%	2.4%	1.5%	2.0%	1.3%	1.5%	1.4%	2.1%	
All ages	4.5%	6.4%	4.5%	6.6%	4.0%	6.1%	3.8%	5.9%	3.8%	6.2%	

Source: Analysis provided by the Indiana University Public Policy Institute using data from the Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023.

High

- 1) A collision is defined as speed-related if either unsafe speed or speed to fast for weather conditions is listed as the primary or a contributing factor for the collision, or if vehicle driver is issued a speeding citation.

- Data limited to drivers with valid gender and age reported.
   Excludes drivers under 15 years old and over 109 years old.
   This table also appears in the Speed chapter. It is repeated here for the ease of the reader.

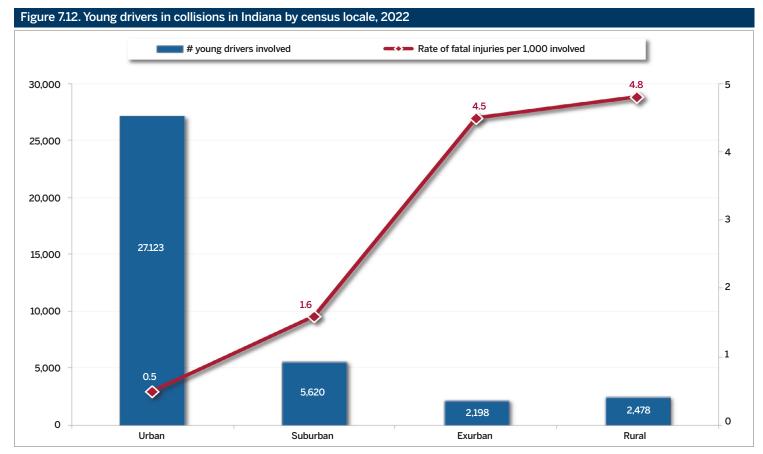
Low

Figure 7.11. Alcohol-impaired drivers in crashes in Indiana per 10,000 licensed drivers by age group, 2022 Total 15-20 Driver age group (years) 21-24 16.1 25-34 13.3 35-44 9.0 6.2 45-54 4.2 55-64 2.0 65-74 75+

Sources: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), download January 25, 2023; and Indiana Bureau of Motor Vehicles, Licensed drivers, as of March 22, 2023.

### Notes:

- 1) Data limited to drivers with valid age reported.
- 2) Excludes drivers under 15 years old and over 109 years old.



Sources: Analysis provided by the Indiana University Public Policy Institute using data from Indiana State Police, Automated Reporting Information Exchange System (ARIES), downloaded January 25, 2023; and U.S. Census Bureau, 2010 TIGER/line shapefile—Urban areas.

### Notes

- 1) Young drivers are defined as drivers ages 15–20.
- 2) Census locales for traffic collisions are defined as urban, suburban, exurban, or rural. Urban areas are those defined in the 2010 census generally by density and size. Suburban, exurban, and rural areas were created by the research team based on the 2010 urban boundaries. See the Glossary for a complete explanation.
- 3) Excludes young drivers in collisions with unknown census locale.



# DATA SOURCES AND REFERENCES

LONG THE VIEW POLICE

# DATA SOURCES AND OTHER REFERENCES

Center for Road Safety. (2022). Indiana roadside observational survey of safety belt use. Purdue University.

Centers for Disease Control and Prevention. (2023). Web-based injury statistics query and reporting system (WISQARSTM). U.S. Department of Health and Human Services. https://www.cdc.gov/injury/wisqars/index.html

Indiana Bureau of Motor Vehicles. (2023). 2022 licensed drivers and vehicle registrations. Downloaded on March 22, 2023.

Indiana Department of Transportation. (2022), 2021 county-level vehicle miles travelled (VMT). https://www.in.gov/indot/resources/traffic-data/. Last revised on July 22, 2022.

Indiana State Police. (2023). Automated Reporting Information Exchange System (ARIES). Downloaded on January 25, 2023.

National Center for Statistics and Analysis. (2023a). Traffic safety facts in 2021—Alcohol-impaired driving (DOT HS 813 450). National Highway Traffic Safety Administration, U.S. Department of Transportation. https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813450

National Center for Statistics and Analysis. (2023b). Traffic safety facts research note: Seat belt use in 2022—Overall results (DOT HS 813 407). National Highway Traffic Safety Administration, U.S. Department of Transportation. https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813407

- U.S. Census Bureau. (2012). 2010 TIGER/line shapefile—Urban areas. U.S. Department of Commerce.
- U.S. Census Bureau. (2022). 2020 annual estimates of the resident population by single year of age and sex for the United States and states. U.S. Department of Commerce. Provided by the Indiana University Business Research Center.
- U.S. Census Bureau. (2023). Population estimates for Indiana counties—2020–22. U.S. Department of Commerce. Provided by the Indiana University Business Research Center.

Venkatraman, V., Richard, C. M., Magee, K., & Johnson, K. (2021). Countermeasures that work: A highway safety countermeasures guide for state highway safety offices, 10th edition, 2020 (DOT HS 813 097). National Highway Traffic Safety Administration, U.S. Department of Transportation. https://www.nhtsa.gov/sites/nhtsa.gov/files/2021-09/Countermeasures-10th\_080621\_v5\_tag.pdf



# INDIANA OFFICER'S STANDARD CRASH REPORT AND GLOSSARY

GERRA VERVIOL

# **INDIANA OFFICER'S STANDARD CRASH REPORT**

State Id DRAFT		In	diana				rash Report	:	Hit and Run
Local Id				Vehicles  1	Commercial 0	Injuries 0	Fatalities 0		Page 1 of 4
Printed on 6/28	/2019 9:27:3	7 AM							
Drivers							P		
Leastian			- 14			County	Township	City	
Crash Date  Weather Con  Roadway Sur		Day of Week		Crash Time		Date of Report	Latitude	Longit	ude
Weather Con	dition	Light Condition	n			Locality	Inside Corporate Limits?	Sc	chool Zone
Roadway Sur	rface	Surface Cond	lition			Roadway Classification	1		ain or Rail Equipment
Construc	tion Zone	Construction	Туре			Roadway Junction	Railroad Crossing #		umble Strips eer
Time Notified	Tin	ne Arrived	Primary Fa	ctor		4	Did this crash happen as a res		
		ner Location of I	xv		Investigation	n	Total Estimate of all damage in	n Crash:	
Type of Crash Investigative Reviewing Off Assisting Offi			Agency		Investigation Complete	Photos taken  ID Number	-		
Reviewing Of	-		50.						
Assisting Offi	icer								
Assisting Offi	icer								
The followin	g was written t	av Both Croin							
Narrative									

Official copy obtained through buycrash.com

Indiana Officer's Standard Crash Report

State Id DRAFT		Ir	ndiana	Offic	er's	Sta	ndard C	ras	h Rep	ort		Hit and	Run
Local Id				Vehicles 1	Com	mercial 0	Injuries 0	Fatalities 0				Page	2 of 4
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Apparent Physical S	Status		Restrictions				Apparent Physic	al Status		Restrictions			
Test Given	Type Give	n					Test Given	Туре	Given				
Driver Injury Status			Ejection/Trapped				Driver Injury State	us		Ejection/Trapped	d		
Safety Equipment U	sed		Safety Equipmen	Effective			Safety Equipmen	t Used		Safely Equipmen	nt Effective		
EMS Number			Immediale Medic	al Attention			EMS Number			Immediate Med	cal Attention		
Nature of Most Seve	re Injury		_ocation of Most	Severe Injury			Nature of Most S	evere Injury		Location of Most	l Severe Injur	у	
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Indiana Officer's Standard Crash Report

Official copy obtained through buycrash.com

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Indiana Officer's Standard Crash Report

Official copy obtained through buycrash.com

**End of Report** 

4

# **GLOSSARY**

Many of the terms and definitions listed below were taken or adapted from current or past ARIES documentation. In some cases that are noted, the definitions reflect the specific treatment within the analyses contained within this report.

### **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-impaired**

The National Highway Traffic Safety Administration (NHTSA) defines drivers as being alcohol-impaired when they test for a blood alcohol concentration (BAC) of at least 0.08 grams per deciliter (g/dL). Any fatal crash involving a driver at that BAC level is categorized as an alcohol-impaired driving crash, thus any fatality that happens in a crash that meets that criterion is deemed an alcohol-impaired fatality (NHTSA DOT HS 313 450, 2023a, p. 1). By law, drivers in Indiana who have a BAC of at least 0.08 should receive—at minimum—a Class C misdemeanor (IC 9-30-5-1). Indiana Code also says drivers with a BAC of at least 0.15 g/dL should receive a Class A misdemeanor (IC 9-30-5-1). If the driver had a passenger under the age of 18 in the vehicle, they could face a Class D felony.

### Attributable/attributability

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 collision.

### Blood alcohol concentration (BAC)

Blood alcohol concentration (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 alcohol was consumed by the person tested. A BAC level of 0.08 g/dL or more indicates the person was legally impaired.

### **BMV**

Indiana Bureau of Motor Vehicles

### Bus

Large motor vehicles consisting primarily of a transport device (cargo body style) used to carry nine or more passengers, including school buses, intercity buses, and transit buses.

### **Census-based locale**

For the purposes of the analysis in this report, census locales for traffic collisions are defined as urban, suburban, exurban, or rural. Urban areas are defined in the 2010 census as densely settled cores that meet minimum population density requirements combined with adjacent non-residential land uses and any low population-density areas needed to connect outlying densely settled territory. These areas include urbanized areas with populations of 50,000 or more as well as urban clusters of at least 2,500 and less than 50,000 people. The research team created suburban, exurban, and rural areas using geographic information system (GIS) buffers. Suburban areas are defined as areas

within 2.5 miles of 2010 urban area boundaries, exurban areas as areas within 2.5 miles of suburban area boundaries, and rural areas are all areas beyond the exurban areas.

### 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.

### Children

For the purposes of the analysis in this report, children include all individuals ages 0–14 identified as injured occupants, pedestrians, and pedalcyclists, as well as drivers and animal-drawn vehicle operators ages 8–14. The <1, 1–3, and 4–7-year-old age groups exclude data records coded as driver or animal-drawn vehicle operator due to unavailable or invalid age reporting. Unknown age or birthdate often results in an inaccurate age assignment in the ARIES database.

### 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. Collisions involve contact with another vehicle, property, an animal, or a pedestrian.

### 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 at least one person was reported to have: (1) an incapacitating injury; (2) a non-incapacitating injury; or (3) a possible but 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 \$1,000 or more.

### **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. Truck: A vehicle equipped for carrying property and having a gross vehicle weight rating or gross combination weight rating of more than 10,000 pounds.
- 2. Bus: A motor vehicle designed to transport nine or more occupants.
- 3. Any vehicle displaying a hazardous materials placard.

### **Contributing circumstance**

Actions of a driver, apparent environmental conditions, or apparent vehicle conditions that contributed to the collision.

### Dark-lighted

The time between dusk and dawn, and in a place 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 in a place where there are no lights designed or installed to illuminate the roadway.

### Day or daytime

The time period from 6 a.m. to 5:59 p.m.

### 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. For an out-of-control vehicle, an occupant who was in control until control was lost.

### **Ejection**

Refers to occupants being completely 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 guardrails, bridge railings or abutments, trees, utility poles, ditches, culverts, and buildings.

### **Hazardous materials**

Any substance or material which has been determined by the U.S. Department of Transportation (USDOT)—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 activities they could perform before the injury occurred. Hospitalization is usually required. Examples are severe lacerations, broken limbs, skull fracture, crushed chest, internal injuries, etc. ARIES also defines incapacitating injuries as including when people are transported from scene for treatment.

### 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 in the Indiana Crash Report are (1) T-intersections; (2) Y-intersections; (3) four-way intersections; (4) interchanges; (5) five points or more; 6) ramps; and 7) traffic circles/roundabouts.

### ISP

Indiana State Police

### **Junction**

Area formed by the connection of two roadways, including intersections, interchange areas, and entrance/exit ramps.

### Lane control

Visible lane markings such as hash marks or lines that separate lanes of travel.

### Large trucks

Trucks with a gross vehicle weight rating of more than 10,000 pounds, including single unit trucks and truck-tractors.

### **Licensed drivers**

The annual count of licensed drivers in a given location (e.g., county, state, nation) or group.

### **Light trucks**

Trucks with a gross vehicle weight rating of 10,000 pounds or less, including pickups, vans, truck-based station wagons, and sport utility vehicles.

### Motorcycle

Motorcycles are a category of vehicle. For the analysis in this report, motorcycles include five types of vehicles:

- 1. Motorcycle: A motor vehicle that: (1) has a seat or saddle for the use of the rider; (2) is designed to travel on no more than three wheels on the ground; and (3) satisfies the operational and equipment specifications described in 49 CFR 571 and IC 9-19. The term does not include a farm tractor or a motor-driven cycle.
- 2. Motor-driven cycle—Class A: A motor vehicle that: (1) has a seat or saddle for the use of the rider; (2) is designed to travel on no more than three wheels on the ground; (3) complies with applicable motor vehicle equipment requirements under IC 9-19 and 49 CFR 571; (4) has an engine that produces no more than five-brake horsepower; and (5) is registered as a Class A motor-driven cycle. The term does not include an electric personal assistive mobility device.
- 3. Motor-driven cycle—Class B: A motor vehicle that: (1) has a seat or saddle for the use of the rider; (2) is designed to travel on no more than three wheels on the ground; (3) complies with applicable motor vehicle equipment requirements under IC 9-19 and 49 CFR 571; (4) has a cylinder capacity not exceeding 50 cubic centimeters; and (5) is registered as a Class B motor-driven cycle. The term does not include an electric personal assistive mobility device.

- 4. Motorized bicycle: ARIES includes motorized bicycles as a vehicle type. State law does not define motorized bicycle, specifically. However, IC 9-21-11 defines electric bicycles as any bicycle that meets the following three criteria: (1) equipped with fully operable pedals; (2) an assistive, electric motor with a power output no greater than 750 watts; and (3) meets the requirements of a Class1, Class 2, or Class 3 electric bicycle (IC 9-13-2-49.2). IC 9-23-2-26.6, 26.7, and 26.8 define each of the three classes.
- 5. Moped: ARIES includes mopeds as a vehicle type. However, there is no definition in state law.

### 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 or nighttime

The time period from 6 p.m. to 5:59 a.m.

### 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, including (1) pedestrians, (2) pedalcyclists, and (3) people 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 into ARIES, passengers are only to be entered in the crash report if an injury occurs. Therefore, numbers identified in the not injured category should be interpreted with caution.

### **Occupant**

Any person who is in or upon a motor vehicle in transport. Includes the driver, passengers, and anyone 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 collision = 24/76 = 0.32.

### **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 serious bodily injury for motorcycle riders and passenger car occupants is .21 and .01, respectively, the odds ratio of motorcyclists compared to car occupants = .21/.01 = 19.2 (i.e., motorcyclists are 19.2 times more likely to experience a serious bodily injury than are car occupants).

### **Passenger**

Any occupant of a motor vehicle who is not a driver.

### Passenger car

Motor vehicles that are used primarily for carrying passengers, including convertibles, sedans, and station wagons.

### Passenger vehicles

Passenger vehicles are defined as passenger cars, pickup trucks, sport utility vehicles (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.

### Pickup truck

A motor vehicle designed to carry 10 or fewer people, with an exposed bed.

### Possible injury

Any injury reported or claimed which is not visible, i.e., the complaint of back or neck pain. These injuries are normally included in the 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 action: Primary factors of following too closely, failure to yield right of way, unsafe backing, disregarding signal/regulatory 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.
- 2. Driver—loss of control: Primary factors of ran off road right, ran off road left, and overcorrecting/oversteering.
- 3. Driver—distraction: Primary factors of driver distracted (explained in narrative), cell phone usage, other telematics in use, and passenger distraction.
- 4. Driver—cognitive impairment: Primary factors of driver asleep or fatigued, driver illness, and driver under the influence of alcoholic beverages, prescription drugs, or illegal drugs.
- 5. Environmental: Primary factors of animal on roadway, roadway surface condition, view obstructed, other—environment (explained in narrative), obstruction not marked, severe crosswinds, traffic control problem, holes/ruts in surface, glare, lane marking obscured, road under construction, and shoulder defective.
- 6. Vehicle-related: Primary factors of brake failure or defective, other—vehicle (explained in narrative), 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.
- 7. All other: Primary factors of other—driver (explained in narrative), pedestrian action, not a factor—driver, not a factor—vehicle, violation of license restriction, and not a factor—environment.
- 8. Unknown: Primary factors of unknown and invalid.

### Property damage only 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 2% of collisions involving speeding result in a fatality and 1% 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**

For passenger vehicle occupants ages 16 and older, proper restraints including lap belts, shoulder belts, or automatic belts. Proper restraints for passenger vehicle occupants under age 16 are determined by child age and weight and include car seats or booster seats in combination with seat belts or LATCH anchors/tethers (IC 9-19-11).

### Roadway

The part of a trafficway designed, improved, and ordinarily used for motor vehicle travel.

### **Rollover**

Any vehicle rotation of 90 degrees or more about any true longitudinal or lateral axis. This 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 to carry property and is built that part of its weight rest upon or is carried by the power unit.

### **Semi-tractor**

A motor vehicle consisting of a single power unit device designed primarily for pulling semi-trailers.

### Single-unit truck

A medium or heavy truck in which the engine, cab, drive train, and cargo area are all on one chassis. Such a vehicle can have two axles and six tires on the ground, or three or more axles.

### Speed-related

For the purposes of this report, 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; or (2) a vehicle driver is issued a speeding citation.

### Sport utility vehicle (SUV)

A multipurpose motor vehicle—other than a pickup truck—that is designed to carry fewer than 10 people. An SUV is constructed on a truck chassis or with special features for occasional off-road operation. These vehicles are generally four-wheel-drive (4x4), have increased ground clearance, and a gross vehicle weight rating of 10,000 pounds or less.

### 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, yellow, and green signal and/or a flashing signal.

### Unit

Denotes a motor vehicle, pedestrian, pedalcyclist, or other entity involved in the collision.

### **Unknown injury**

Injuries reported as (1) refused [treatment], (2) unknown, (3) not reported, and (4) invalid codes. Refused [treatment], unknown, and not reported are normally included in the non-incapacitating injury category.

### **Unsafe backing**

Backing up increases the risk of a crash because it is much more difficult for drivers to see obstacles behind them 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. Vans are identifiable by their 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 (VMT)

The annual vehicle distance traveled in miles (VMT).

### Weekday

From 6 a.m. Monday to 5:59 p.m. Friday.

### Weekend

From 6 p.m. Friday to 5:59 a.m. 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 onto 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 painting lane lines or mowing along the roadside—only and if the beginning of the ongoing, moving (mobile) work activity is designated by warning signs or signals.

### Young driver

For the purposes of the analysis in this report, a young driver is a driver of a motor vehicle between the ages of 15 and 20.

